

DEPARTMENT OF COMMERCE  
CIVIL AERONAUTICS ADMINISTRATION

E-288
Revision 1
FAIRCHILD
FT-101E
May 1, 1956

AIRCRAFT ENGINE SPECIFICATION

Engines of models described herein conforming with this specification and approved data on file with the Civil Aeronautics Administration are rated as airworthy for use in certificated aircraft in accordance with pertinent aircraft specifications and the manufacturer's installation, operation, repair and overhaul instructions.

Manufacturer	Fairchild Engine Division Fairchild Engine and Airplane Corporation Deer Park, New York	
Model	FT-101E	
Type - Turbojet	Single-stage, mixed flow compressor Single-stage, axial flow turbine 1 annular combustion chamber	
<b>Ratings</b>		
Maximum continuous static thrust, lbs., rpm, altitude	900-15,100-S.L.	
Takeoff static thrust (5 minutes), lbs., rpm, altitude	1000-15,780-S.L.	
Fuel control	Woodward type 1374	
Fuel	(MIL-F-5572) Aviation Gasoline	
Oil	(MIL-L-7808A) Esso Turbo 15	
Accessory housing oil capacity, pts.	.75	
Engine oil mist lubricator capacity, pts.	.85	
<b>Principal Dimensions</b>		
Length overall, in.	90.4	
Diameter, in.	24.3	
Weight (dry), lbs.	380	
Center of gravity, in. aft of trunnion	10.5	
Ignition	General Laboratories type 19800 with two igniters and a dual ignition coil	
Certification basis	Type Certificate No. 288	
Production basis	Pending	

NOTE 1. Maximum permissible temperatures are as follows:  
Turbine outlet gas temperatures,  
Takeoff, 1325°F  
Maximum continuous, 1290°F  
Transient, 1440°F for three seconds maximum.  
Bearing temperatures (recommended limits)  
Turbine bearing outer race, 300°F  
Compressor bearing outer race, 150°F

NOTE 2. Fuel pump inlet pressure limits:  
Minimum at pump inlet, 15 psia  
Operating gage pressures, 14 to 50 psi

"psi" = lbs./sq.in.  
"psia" = lbs./sq.in. absolute.

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NOTE 3. These ratings are based upon the following conditions:  
 Compressor inlet air, 59°F and 29.92 in.Hg. dry  
 Jet nozzle area, 118 sq.in.  
 Turbine outlet gas temperature, 1220°F  
 No turbine air bleed

NOTE 4. Oil supply level in both the accessory drive section and the oil mist lubricator must be checked frequently when on the ground, to insure an adequate quantity since no provision is made for indicating oil pressure, or temperature or quantity while in operation.

NOTE 5. The following accessory drive provisions are available:

Drive	Rotation*	Speed Ratio to Turbine Shaft	Torque (in.lb.)		Overhang (in.lb.)
			Continuous	Static	
Tachometer	C	.269	15	70	10.7
Fuel pump	C	.227	50	600	134.0
Starter	CC	.440	500	2200	187.0

\*C-Clockwise

\*\*CC-Counter Clockwise

NOTE 6. The following accessories are provided with the engine at weight increase indicated:

<u>Accessory</u>	<u>Weight</u>
Tachometer Generator	2 lbs.
*Starter (Jack & Heintz - D62)	25 lbs.
*Starter (Jack & Heintz - D62-1)	22 lbs.
Power control actuator	2 lbs.
Accessory section fairing	5 lbs.
Electrical conduit	5 lbs.

*\*Optional*

NOTE 7. This engine has no provision for anti-icing the inlet and has not been tested to determine the extent to which flights in icing weather will adversely affect engine output.

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