

OPERATING CONDITIONS (CONT.)

FUEL PRESSURE – PSI (CONT.) –

	MIN.	MAX.	IDLE MIN.
TIO-540-W2A			
Inlet to fuel pump	-2	65	
Inlet to fuel injector	31	65	12

Operation	RPM	HP	Fuel Cons. Gal./Hr.	Max. Oil Cons. Qts./Hr.	**Max. Cyl. Head Temp.
*TIO-540-A1A, -A1B, -A2A, -A2B, -A2C					
Normal Rated	2575	310	26.3	1.38	475°F (246°C)
Performance Cruise (75% Rated)	2575	230	20.5	0.77	475°F (246°C)
Economy Cruise (60% Rated)	2200	185	13.5	0.66	475°F (246°C)
*TIO-540-F2BD					
Normal Rated	2575	325	-----	1.45	475°F (246°C)
Performance Cruise (75% Rated)	2575	245	21.0	0.82	475°F (246°C)
Economy Cruise (60% Rated)	2200	195	14.0	0.65	475°F (246°C)
*TIO-540-J2B, -J2BD, -N2BD					
Normal Rated	2575	350	-----	1.56	475°F (246°C)
Performance Cruise (75% Rated)	2575	260	22.0	0.87	475°F (246°C)
Economy Cruise (60% Rated)	2200	210	15.0	0.70	475°F (246°C)
*TIO-540-R2AD					
Normal Rated	2500	340	-----	2.07	475°F (246°C)
Performance Cruise (75% Rated)	2500	260	23.5	0.47	475°F (246°C)
Economy Cruise (60% Rated)	2200	210	15.3	0.70	475°F (246°C)

* - MAXIMUM TURBINE INLET TEMPERATURE 1650°F (898.8°C).

** - At Bayonet Location – For maximum service life of the engine maintain cylinder head temperature between 150°F (65.5°C) and 435°F (223.86°C) during continuous operation.

According to the engine manufacturer's operating manual, using the most conservative fuel consumption in economy cruise, the airplane consumed about 13.5 gal/hr of fuel per engine. Assuming that the enroute phases of flight were performed on the outboard fuel tanks, which held 40 gallons of fuel, with the engines power at economy cruise, the airplane would have an estimated 2.9 hours of fuel endurance in the outboard tanks with the tanks full.

Date	Flight Time	Time Enroute (flight time minus 0.05 for climb & 0.05 for descent)	Gallons used in each outboard tank.	Gallons remaining in each outboard tank.
May 2 (CYQB>CYHU)	0.9 hours	0.8	10.8	29.2
May 3 (CYHU>CYQB)	1.0 hours	0.9	12.2	17
May 3 (CYQB>CYHU accident flight)	~1.25 hours	~1.2 (subtract only 0.05 since only the climb phase was completed)	~16.2 gallons	

Figure 1. Estimated Outboard Tank Fuel Consumption