

Fuel and Power Chart Continental E-225 TOHP 225 NRP 225 K-factor 1681			ECONOMY CRUISE				PERFORMANCE CRUISE				MAX. PERFORM. (Climb)				
			2200 RPM		2300 RPM		2300 RPM		2300 RPM		2450 RPM		2650 RPM		
Note:	Press Alt. 1000 feet	Std. Alt. Temp. (Ts)	60% NRP 135 HP .52 SFC 103 BMEP		60% NRP 135 HP .51 SFC 99 BMEP		65% NRP 146 HP .51 SFC 107 BMEP		70% NRP 157 HP .51 SFC 115 BMEP		87% NRP 190 HP .57/.53 SFC 130 BMEP		*100% NRP 225 HP .60 SFC 143 BMEP		
	°F	°C	MP	FC	MP	FC	MP	FC	MP	FC	MP	FC	MP	FC	
HP and FC may vary (+) Or (-) 3% due to engine condition or error in instru- ment. Add or Subtract .17" Hg. for ea. 10°F or 6°C fr. Ts.	S.L.	59	15	21.8	11.6	21.0	11.5	22.2	12.5	23.3	13.3	25.7	18.0	225	22.5
	2.0	52	11	21.5	11.6	20.6	11.5	21.8	12.5	23.0	13.3	25.3	18.0	217	21.7
	3.5	48	8	21.2	11.6	20.3	11.5	21.5	12.5	22.7	13.3	25.0	18.0	207	20.7
	4.5	44	6	21.0	11.6	20.1	11.5	21.3	12.5	22.5	13.3	*187	17.7	200	20.0
	5.5	40	5	20.7	11.6	19.9	11.5	21.1	12.5	22.3	13.3	181	17.2	194	19.4
	6.5	36	3	20.5	11.6	19.7	11.5	20.9	12.5	22.1	13.3	175	16.6	187	18.7
	7.5	33	1	20.3	11.6	19.5	11.5	20.7	12.5	21.9	13.3	169	16.0	181	18.1
	8.5	29	-1	20.1	11.6	19.3	11.5	20.5	12.5	*152	13.3	163	15.5	174	17.4
	9.5	25	-3	20.0	11.6	19.1	11.5	20.3	12.5	146	12.5	157	14.9	168	16.8
	10.5	21	-5	*131	11.2	18.9	11.5	*140	11.8	140	11.8	151	14.3	161	16.1
	11.5	17	-6	128	11.0	18.7	11.5	135	11.5	135	11.5	145	12.8	155	15.5
	12.5	15	-8	123	10.5	*130	11.1	130	11.1	130	11.1	139	12.3	149	14.9

CONTINENTAL Aircraft Engine Model E-225

Aviation Fuel Grade 80/87
 Compression Ratio 7.0 : 1
 Spark Occurs (BTC) 26°
 Firing Order 1-6-3-2-5-4
 Total Displacement 471 cubic inches
 Normal Rated Power (Max/cont.) 225
 "K" Factor to compute BMEP 1681

Oil Aviation Grade SAE 100W
 Oil Pressure Cruising (Lbs. sq/in) 30-60
 Oil Temperature Maximum (°F) 225°
 Oil Temperature Desired (°F) 90°
 Cylinder Head Temperature Max. (°F) 525°
 Rated RPM (Max/cont.) 2650
 Rated RPM for Take-Off 2650

FORMULAS

BMEP (Brake Mean Effective Pressure) is obtained by computer as follows: Place BHP (Brake Horse Power) on the outer scale over the RPM on the inner scale. Read BMEP on the outer scale over the "K" factor on the inner scale. It is recommended to compare BMEP against those on the chart, checking not to exceed 65%, when using RPM settings lower than on the Power Chart.

SFC (Specific Fuel Consumption). To convert SFC to GPH (Gallons per Hour): Multiply SFC by HP and divide this by 6. This gives you FC in GPH. Example: Engine has SFC of .49 lbs/hr/hp at 157 HP with 2300 RPM. What is GPH?

$$.49 \times 157 \div 6 = 12.82 \text{ GPH}$$

AIRSPEED at a given HP, if TAS at another HP is known. Change in velocity with change in power at constant air density (read: same altitude). Example: Aircraft has TAS 172.24 at maximum power at 1000 feet MSL. What is TAS at 70% NRP under the conditions?

$$V_2 = V_1 \times \sqrt[3]{\frac{HP_2}{HP_1}}$$

NRP is 225 HP. 70% power is 157 HP. Substituting $HP_2 (157) \div HP_1 (225) = .70$
 The cube root of .70 is approximately .889
 $V_2 (172.24 \times .889 = 153.12 \text{ MPH TAS.}$