### 5.7 PERFORMANCE GRAPHS

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Example:
Climb pressure altitude: 5000 ft.
Climb OAT: 60°F
Rate of climb: 380 ft./min.

CLIMB PERFORMANCE
Figure 5-11

REPORT: VB-780
5-16

ISSUED: JUNE 17, 1976
Example:

Departure airport pressure altitude: 1500 ft.
Departure airport temperature: 80°F
Cruise pressure altitude: 5000 ft.
Cruise OAT: 60°F
Time to climb (12.5 min. minus 5.5 min.): 7 min.
Distance to climb (16.5 miles minus 7.5 miles): 9 nautical miles
Fuel to climb (2.5 gal. minus 1.5 gal.): 1 gal.

TIME, DISTANCE AND FUEL TO CLimb

Figure 5-13
PA-28-151

BEST POWER CRUISE PERFORMANCE
GROSS WEIGHT 2325 LBS. WHEEL FAIRINGS ON
BEST POWER MIXTURE PER LYCOMING LEANING INSTRUCTIONS.

FUEL CONSUMPTION
75% = 9.2 GPH
85% = 8.0 GPH
95% = 6.7 GPH

Example:
Cruise pressure altitude: 5000 ft.
Cruise OAT: 60°F
Cruise power: 75%, Best Power Mixture
Cruise speed: 113 KTS TAS

BEST POWER CRUISE PERFORMANCE
Figure 5-15
Example:
Cruise pressure altitude: 5000 ft.
Cruise OAT: 60°F
Cruise power: 75%, Best Economy Mixture
Cruise speed: 107 KTS TAS

BEST ECONOMY CRUISE PERFORMANCE
Figure 5-17
Example:
Cruise pressure altitude: 5000 ft.
Cruise OAT: 60°F
Cruise power: 75%, Best Economy Mixture
Range with 45 min. reserve at 55% power: 520 nautical miles
Range with no reserve: 583 nautical miles

BEST ECONOMY MIXTURE RANGE

Figure 5-19
Example:
Cruise pressure altitude: 5000 ft.
Cruise OAT: 60°F
Cruise power: 75%, Best Economy Mixture
Endurance with 45 min. reserve at 55% power: 4.7 hrs.
Endurance with no reserve: 5.5 hrs.

ENDURANCE
Figure 5-21
Example:
Destination airport pressure altitude: 2500 ft.
Destination airport temperature: 75°F
Cruise pressure altitude: 5000 ft.
Cruise OAT: 60°F
Time to descend (7.5 min. minus 5.5 min.): 2 min.
Distance to descend (17 miles minus 12 miles): 5 nautical miles
Fuel to descend (1.5 gal. minus 1 gal.): .5 gal.

TIME, DISTANCE AND FUEL TO DESCEND
Figure 5-23
Example:
- Cruise pressure altitude: 5000 ft.
- Cruise OAT: 28°F
- Terrain pressure altitude: 2000 ft.
- Temperature at terrain: 50°F
- Glide distance (8 miles minus 3.5 miles): 4.5 nautical miles

GLIDE PERFORMANCE
Figure 5-25
PA-28-151

LANDING PERFORMANCE
GROSS WEIGHT 2325 LBS., POWER OFF, 40° WING FLAPS
PAVED LEVEL DRY RUNWAY, MAXIMUM BRAKING
APPROACH SPEED 63 KTS IAS,
FULL STALL TOUCH DOWN

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15 KTS HEADWIND
NO WIND
5 KTS TAIL WIND

GROUND ROLL
OVER 50 FT. BARRIER

Example:
Destination airport pressure altitude: 2500 ft.
Destination airport temperature: 75°F
Destination airport wind: 0 KTS
Ground roll: 660 ft.
Distance over 50 ft. barrier: 1190 ft.

LANDING PERFORMANCE
Figure 5-27

REPORT: VB-780
ISSUED: JUNE 17, 1976