PERFORMANCE CHARTS

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WARNING

Performance information derived by extrapolation beyond the limits shown on the charts should not be used for flight planning purposes.
Example: Temp. 25°F  
Press. Alt. 8000 Ft.  
Density Alt. 7500 Ft.
Example: Temp. 70°F  Wt. 3600 lbs  Ground Run 810 ft
Press. Alt. 4000 ft  Hd. wind 10 MPH
Example: Temp. 70°F Wt. 3600 lbs T. O. Dist. 1350 ft
Press. Alt. 4000 ft Hd. wind 10 MPH
TAKE-OFF DISTANCE OVER 50 FT
OBSTACLE AT VARIOUS ALTITUDES,
TEMPERATURES, WEIGHTS, AND WINDS

FLAP SETTING: 0°  FULL POWER BEFORE BRAKE RELEASE
LIFT-OFF SPEED: 83 MPH
BARRIER SPEED: 85 MPH  PAVED LEVEL DRY RUNWAY

Example:  Temp. 70°F  Wt. 3600 lbs  T. O. Dist. 1600 ft
Press. Alt. 4000 ft  Hd. wind 10 MPH

PERFORMANCE CHARTS
ISSUED: JULY 16, 1973
ACCELERATE-STOP DISTANCE FOR VARIOUS ALTITUDES, TEMPERATURES, WEIGHTS, AND WINDS

FLAP SETTING - 0° ACCELERATE TO 80 MPH AND THEN STOP
FULL POWER BEFORE BRAKE RELEASE PAVED LEVEL DRY RUNWAY

Example: Temp. 70° F Wt. 3600 lbs Accel. - Stop Dist. 1650 ft
Press. Alt. 2000 ft Hd. wind 10 MPH

PERFORMANCE CHARTS
ISSUED: JULY 16, 1973
MULTI-ENGINE CLimb PERFORMANCE

MIXTURE - LEAN PER LYTOMING INSTRUCTIONS
GEAR UP EXCEPT AS NOTED
FLAPS UP
COWL FLAPS OPEN

RATE OF CLIMB - FT/Min.
GEAR UP
BEST RATE OF CLIMB
SPEED MPH CAS

DENsITY ALTITUDE - FEET

*Gear down best rate of climb speed is 92 MPH CAS at all altitudes.

Example: Wt. 4000 lbs Rate of Climb 1100 ft/min
Den. Alt. 5000 ft Best R/C Speed 103 MPH
(Gear Up)

PERFORMANCE CHARTS
REVISED: JUNE 28, 1974

9-7
SINGLE ENGINE
CLIMB PERFORMANCE
ONE ENGINE INOPERATIVE
COWL FLAP OPEN-OPERATING ENGINE ONLY
GEAR AND FLAPS RETRACTED
5° BANK INTO OPERATIVE ENGINE

Example: Wt. 3400 lbs Rate of Climb 350 ft/min
Den. Alt. 2000 ft Best R/C Speed 98 MPH
CRUISE PERFORMANCE - RANGE

4200 POUNDS GROSS WEIGHT
98 GAL. TOTAL FUEL (93 GAL. USABLE)
2400 RPM
BEST ECONOMY
GEAR UP
MIXTURE - LEAN PER LYCOMING INSTRUCTIONS

NO RESERVE
45 MIN. RESERVE AT 55% POWER

DENSITY ALTITUDE FEET

PERCENT RATED POWER

APPROX. GPH TOTAL

75  20.6
65  18.3
55  16.6
45  14.8

RANGE - STATUTE MILES

PERFORMANCE CHARTS
REVISED: MAY 30, 1975
LANDING GROUND RUN DISTANCE AT VARIOUS ALTITUDES, TEMPERATURES, WEIGHTS, AND WINDS

- PAVED LEVEL DRY RUNWAY
- TOUCHDOWN SPEED - 67 MPH
- FLAP SETTING - 40°
- RETRACT FLAPS ON ROLLOUT - FULL BRAKING

TEMPERATURE - °F  WEIGHT - LBS.  HEADWIND - MPH

The above distances may be reduced by approximately 25% when the aircraft is equipped with optional Heavy Duty Wheels, Brakes and Tires. (Reference Aircraft Equipment List in Weight and Balance section of this manual.)

Example:  Temp. 70°F  Wt. 3600 lbs  Ground Run 615 ft
Press. Alt. 2000 ft  Hd. wind 5 MPH

PERFORMANCE CHARTS
REVISED: JULY 9, 1976
LANDING DISTANCE OVER 50 FT
OBSTACLE AT VARIOUS ALTITUDES,
TEMPERATURES, WEIGHTS, AND WINDS

TOUCH-DOWN SPEED - 67 MPH
POWER OFF APPROACH SPEED - 87 MPH
FLAP SETTING - 40°
RETRACT FLAPS ON ROLLOUT - FULL BRAKING

The above distances may be reduced by approximately 12% when the aircraft is equipped with optional Heavy Duty Wheels, Brakes and Tires. (Reference Aircraft Equipment List in Weight and Balance section of this manual.)

Example: Temp. 70° F  Wt. 3600 lbs.  Landing Dist. 1240 ft
Press. Alt. 4000 ft  Hd. wind 5 MPH
### Power Setting Table - Lycoming Model 10-360-C Series, 200 HP Engine

<table>
<thead>
<tr>
<th>Press. Alt</th>
<th>Std. Alt Temp °F</th>
<th>110 HP – 55% Rated RPM AND MAN. PRESS.</th>
<th>130 HP – 65% Rated RPM AND MAN. PRESS.</th>
<th>150 HP – 75% Rated RPM AND MAN. PRESS.</th>
<th>Press. Alt Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feet</td>
<td></td>
<td>2100 2200 2300 2400</td>
<td>2100 2200 2300 2400</td>
<td>2300 2400</td>
<td></td>
</tr>
<tr>
<td>SL</td>
<td>59</td>
<td>22.9 22.0 21.0 20.4</td>
<td>25.9 24.8 23.8 22.9</td>
<td>26.5 25.5</td>
<td>SL</td>
</tr>
<tr>
<td>1,000</td>
<td>55</td>
<td>22.7 21.8 20.8 20.2</td>
<td>25.6 24.5 23.5 22.7</td>
<td>26.2 25.2</td>
<td>1,000</td>
</tr>
<tr>
<td>2,000</td>
<td>52</td>
<td>22.4 21.5 20.6 20.0</td>
<td>25.4 24.3 23.3 22.5</td>
<td>25.9 25.0</td>
<td>2,000</td>
</tr>
<tr>
<td>3,000</td>
<td>48</td>
<td>22.2 21.3 20.4 19.8</td>
<td>25.1 24.0 23.0 22.2</td>
<td>25.7 24.7</td>
<td>3,000</td>
</tr>
<tr>
<td>4,000</td>
<td>45</td>
<td>21.9 21.1 20.2 19.5</td>
<td>24.8 23.8 22.8 22.0</td>
<td>FT 24.4</td>
<td>4,000</td>
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<tr>
<td>5,000</td>
<td>41</td>
<td>21.7 20.8 20.0 19.3</td>
<td>FT 23.6 22.6 21.7</td>
<td>FT 21.5</td>
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</tr>
<tr>
<td>6,000</td>
<td>38</td>
<td>21.4 20.6 19.8 19.1</td>
<td>FT 22.3 21.5</td>
<td>FT 21.3</td>
<td>6,000</td>
</tr>
<tr>
<td>7,000</td>
<td>34</td>
<td>21.2 20.4 19.6 18.9</td>
<td>FT 21.0</td>
<td>FT 21.0</td>
<td>7,000</td>
</tr>
<tr>
<td>8,000</td>
<td>31</td>
<td>21.0 20.1 19.4 18.7</td>
<td>FT 21.0</td>
<td>FT 21.0</td>
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</tr>
<tr>
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<td>27</td>
<td>FT 19.9 19.2 18.5</td>
<td>FT 17.8</td>
<td>FT 17.8</td>
<td>9,000</td>
</tr>
<tr>
<td>10,000</td>
<td>23</td>
<td>– 19.7 19.0 18.3</td>
<td>– 17.6</td>
<td>– 17.6</td>
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<tr>
<td>11,000</td>
<td>19</td>
<td>– FT 18.7 18.1</td>
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<td>9</td>
<td>– – – FT 17.6</td>
<td>– – – FT 17.6</td>
<td>– – – FT 17.6</td>
<td>14,000</td>
</tr>
</tbody>
</table>

To maintain constant power, correct manifold pressure approximately 0.16" Hg for each 10°F variation in inlet air temperature from standard altitude temperature. Add manifold pressure for air temperatures above standard; subtract for temperatures below standard.
IT IS THE RESPONSIBILITY OF THE OWNER AND PILOT TO ASCERTAIN THAT THE AIRPLANE ALWAYS REMAINS WITHIN THE ALLOWABLE WEIGHT VS. CENTER OF GRAVITY ENVELOPE WHILE IN FLIGHT.

Moment change due to retracting Landing Gear = -32 in.-lbs.

ISSUED: MAY 14, 1973

REPORT: VB-552 PAGE 5-9
MODEL: PA-34-200
SAMPLE PROBLEM

Moment change due to retracting Landing Gear = -32 in.-lbs.