SECTION 5

PERFORMANCE

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SECTION 5
PERFORMANCE

GENERAL

Information contained in Section 5 is approved by the Federal Aviation Administration.

Hover controllability has been substantiated in 17 knot wind from any direction up to 9600 feet density altitude. Refer to IGE hover performance data for allowable gross weight.

Indicated airspeed (KIAS) shown on graphs assumes zero instrument error.

CAUTION

Performance data presented in this section was obtained under ideal conditions. Performance under other conditions may be substantially less.

NOTE

Hover performance data given is with carburetor heat off. Full carburetor heat reduces hover ceilings by up to 2400 feet.

DEMONSTRATED OPERATING TEMPERATURE

Satisfactory engine cooling has been demonstrated to an outside air temperature of 38°C (100°F) at sea level or 23°C (41°F) above ISA at altitude.
NOTE: INDICATED AIRSPEED ASSUMES ZERO INSTRUMENT ERROR

INDICATED AIRSPEED - KIAS

AIRSPEED CALIBRATION CURVE

FAA APPROVED: 17 JUN 1993
DENSITY ALTITUDE CHART
IN GROUND EFFECT AT 2 FOOT SKID HEIGHT
FULL THROTTLE
101-102% RPM
ZERO WIND

GROSS WEIGHT - KG

<table>
<thead>
<tr>
<th>PRESSURE ALTITUDE - Hp X 1000 FT</th>
<th>GROSS WEIGHT - LB</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1500</td>
</tr>
<tr>
<td>1</td>
<td>1700</td>
</tr>
<tr>
<td>2</td>
<td>1900</td>
</tr>
<tr>
<td>3</td>
<td>2100</td>
</tr>
<tr>
<td>4</td>
<td>2300</td>
</tr>
<tr>
<td>5</td>
<td>2500</td>
</tr>
</tbody>
</table>

OAT °C °F
-20 -4
-10 +14
0 +32
+10 +50
+20 +68
+30 +86
+40 +104

STANDARD DAY

2200 GW
2400 GW

DENSITY ALTITUDE
11,600 FT
9,600 FT

IGE HOVER CEILING VS. GROSS WEIGHT

*Hover controllability with 17 knot wind substantiated up to 9600 feet density altitude.

FAA APPROVED: 16 AUG 2001

5-4
OUT OF GROUND EFFECT, ZERO WIND
TAKEOFF POWER OR FULL THROTTLE
101-102% RPM

GROSS WEIGHT - KG

<table>
<thead>
<tr>
<th>OAT °C</th>
<th>°F</th>
</tr>
</thead>
<tbody>
<tr>
<td>-20</td>
<td>-4</td>
</tr>
<tr>
<td>-10</td>
<td>+14</td>
</tr>
<tr>
<td>0</td>
<td>+32</td>
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</table>

DENSITY ALTITUDE
11,600 FT

OGE HOVER CEILING VS. GROSS WEIGHT

FAA APPROVED: 16 AUG 2001
DEMONSTRATED CONDITIONS:
SMOOTH HARD SURFACE
WIND CALM
GOVERNOR ON

AVOID OPERATION IN SHADED AREAS

HEIGHT - VELOCITY DIAGRAM
NOISE CHARACTERISTICS

The following noise levels comply with 14 CFR Part 36, Appendix J and ICAO Annex 16, Chapter 11 noise requirements and were obtained from FAA-approved data from actual noise tests.

Model: R44  
Engine: Lycoming O-540-F1B5  
Gross Weight: 2400 lb (1089 kg)  
$V_h$: 108 KTAS

The flyover sound exposure level (SEL) is 81.9 db(A) with P/N C169-3 (small) muffler installed or 78.9 db(A) with P/N C169-36 (large) muffler installed.

These noise levels meet the requirements for a Stage 3 helicopter as defined in 14 CFR Part 36.

NOTE

No determination has been made by the Federal Aviation Administration that the noise levels of this aircraft are or should be acceptable or unacceptable for operation at, into, or out of any airport.
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