

## **R22 & R44 SAFETY ALERT**

Issued: 20 December 2004

### **EXCEEDING POWER LIMITS CAN BE FATAL**

Some pilots continue to exceed engine manifold pressure limits. The engine is significantly derated from full-throttle power to provide a margin for altitude performance and for momentary emergencies. Pilots must monitor manifold pressure to avoid exceeding limits. Exceeding power limits has caused several rotor blade and drive system failures.

At standard sea level conditions, the maximum continuous manifold pressure limit is 22.4 inches for the R22 Beta II and 22.7 inches for the R44 Raven II. The manifold pressure limits are even less at higher altitude or lower temperature. Operation above these limits may produce fatigue damage in rotor blades or drive system components which can result in a catastrophic inflight failure.

### **WARNING**

1. NEVER EXCEED LIMIT TAKEOFF POWER.
2. NEVER EXCEED MAX CONTINUOUS POWER IN FORWARD FLIGHT.
3. NEVER EXCEED MAX GROSS WEIGHT LIMIT.

Reread Safety Notice SN-37.

R22 Beta II Limit Manifold Pressure Chart.

<b>LIMIT MANIFOLD PRESSURE - IN. HG</b>							
<b>MAXIMUM CONTINUOUS POWER</b>							
<b>PRESS</b>	<b>OAT - °C</b>						
<b>ALT-FT</b>	<b>-20</b>	<b>-10</b>	<b>0</b>	<b>10</b>	<b>20</b>	<b>30</b>	<b>40</b>
<b>SL</b>	21.5	21.8	22.1	22.3	22.6	22.9	23.2
<b>2000</b>	21.1	21.4	21.6	21.9	22.2	22.5	22.8
<b>4000</b>	20.7	21.0	21.2	21.5	21.8	22.0	22.3
<b>6000</b>	20.3	20.6	20.8	21.1	21.3	21.6	21.9
<b>8000</b>	19.9	20.2	20.4	20.7	20.9	<b>FULL THROTTLE</b>	

**FOR MAX TAKEOFF POWER (5 MIN), ADD 0.9 IN. HG**