

Emergency Stopping

To stop the rotor under emergency conditions, both engines must be off, and the main rotor speed must not exceed 107% N_R (maximum).

Rotor Brake Warning System

The rotor brake warning system consists of an amber ROTOR BRAKE caution light on the caution/advisory panel, and a 15-psi pressure switch in the rotor brake hydraulic power unit.

The light illuminates when hydraulic pressure in the system reaches 15 psi or greater and remains lighted until the pressure falls below 8 psi. The caution light should illuminate before the brake linings (pucks) begin to move. The light circuitry is connected to the DC essential bus by a circuit breaker marked "RTR BRK WRN" on the DC essential circuit-breaker panel in the cockpit.

MANUAL ROTOR BRAKE SYSTEM

The manual rotor brake system (Figure 10-14) consists of a master cylinder and pressure gage in the cockpit overhead above the pilot. There is an accumulator/reservoir installed on the main gearbox between the oil cooler blowers, a brake and disc assembly bolted to the tail rotor drive shaft takeoff flange, a ROTOR BRAKE caution light on the caution/advisory panel, and a circuit breaker marked "RTR BRK WRN" on the lower circuit-breaker panel.

The rotor brake system (Figure 10-15) is controlled by the master cylinder handle. Applying two strokes of the rotor brake handle produces a minimum of 200 psi of hydraulic pressure, which activates opposing lined pistons in both brake assemblies. This provides the clamping action on the rotating disc. After the rotor is stopped, additional strokes of the rotor brake

handle can be applied to obtain a maximum of 300 $\pm$ 30 psi, at which pressure the relief valve will open. A sustained pressure of approximately 255 psi (closing pressure of the relief valve) can be maintained to prevent rotor rotation. When pressure in the system is greater than 10 psi, the ROTOR BRAKE caution light is illuminated. To release the rotor brake, place the master cylinder handle in the OFF detent. When system pressure goes below 7 psi, the ROTOR BRAKE caution light extinguishes.

Normal Stopping—B

To stop the rotors under normal conditions, one engine must be off, and the other engine must be set at either off or idle. Normal N_R will be 40 to 60% N_R . Maximum N_R is 65%.

Normal Stopping—A+/C/C+

To stop the rotors under normal conditions, one or both engines must be operating at idle or both engines shut down.

CAUTION

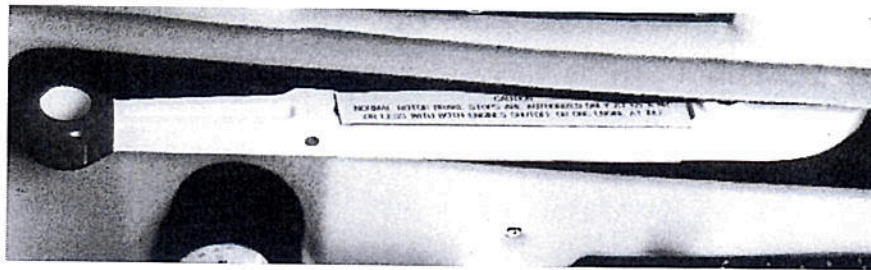
Maximum rotor brake application is not recommended when commenced below 30% N_R . Brake application begun at less than 30% N_R should be light enough to produce a smooth, gentle stop. Normal N_R will be 40 to 60% N_R . Maximum N_R is 65%.

Emergency Stopping

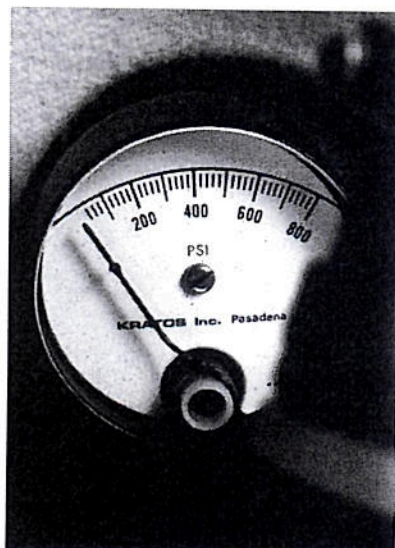
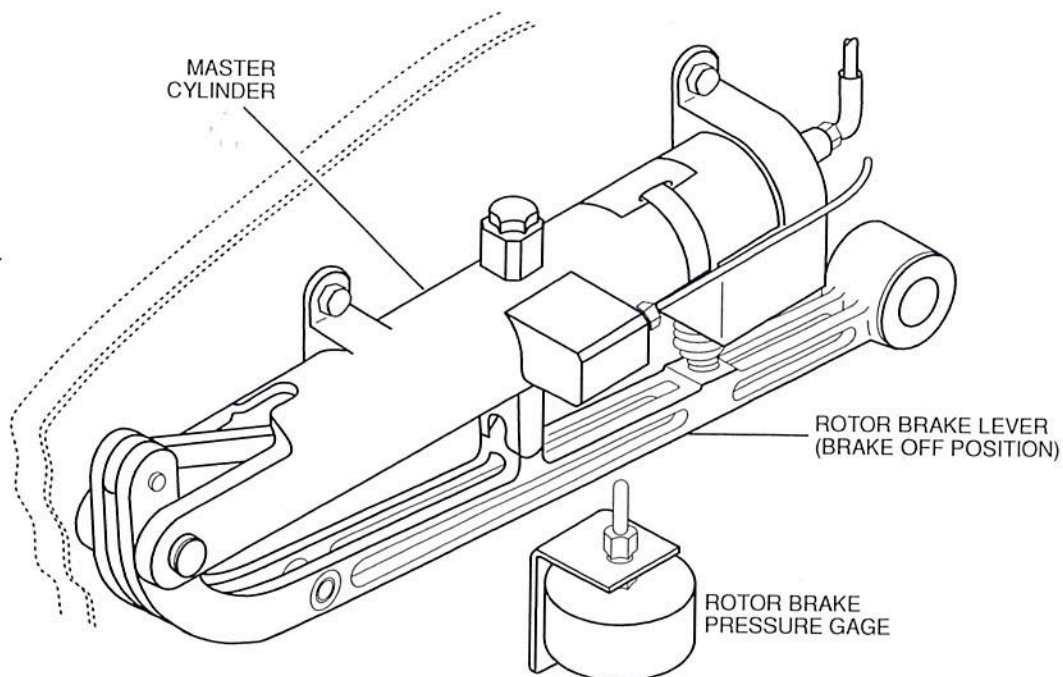
To stop the rotors under emergency conditions, both engines must be off, and the main rotor speed must not exceed 107% N_R (maximum).

NOTE

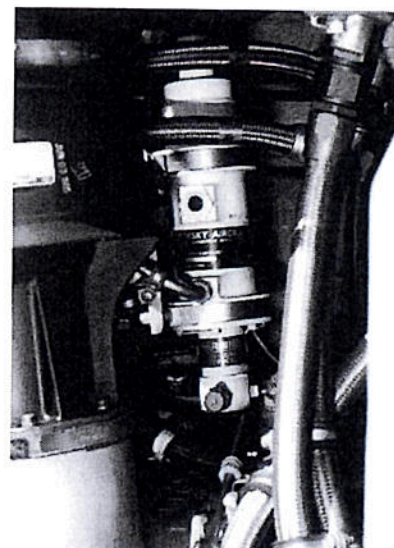
The rotor brake shall not be applied more than once in any ten-minute period.



MASTER CYLINDER



PRESSURE GAGE



ACCUMULATOR/RESERVOIR

Figure 10-14. Manual Rotor Brake Components

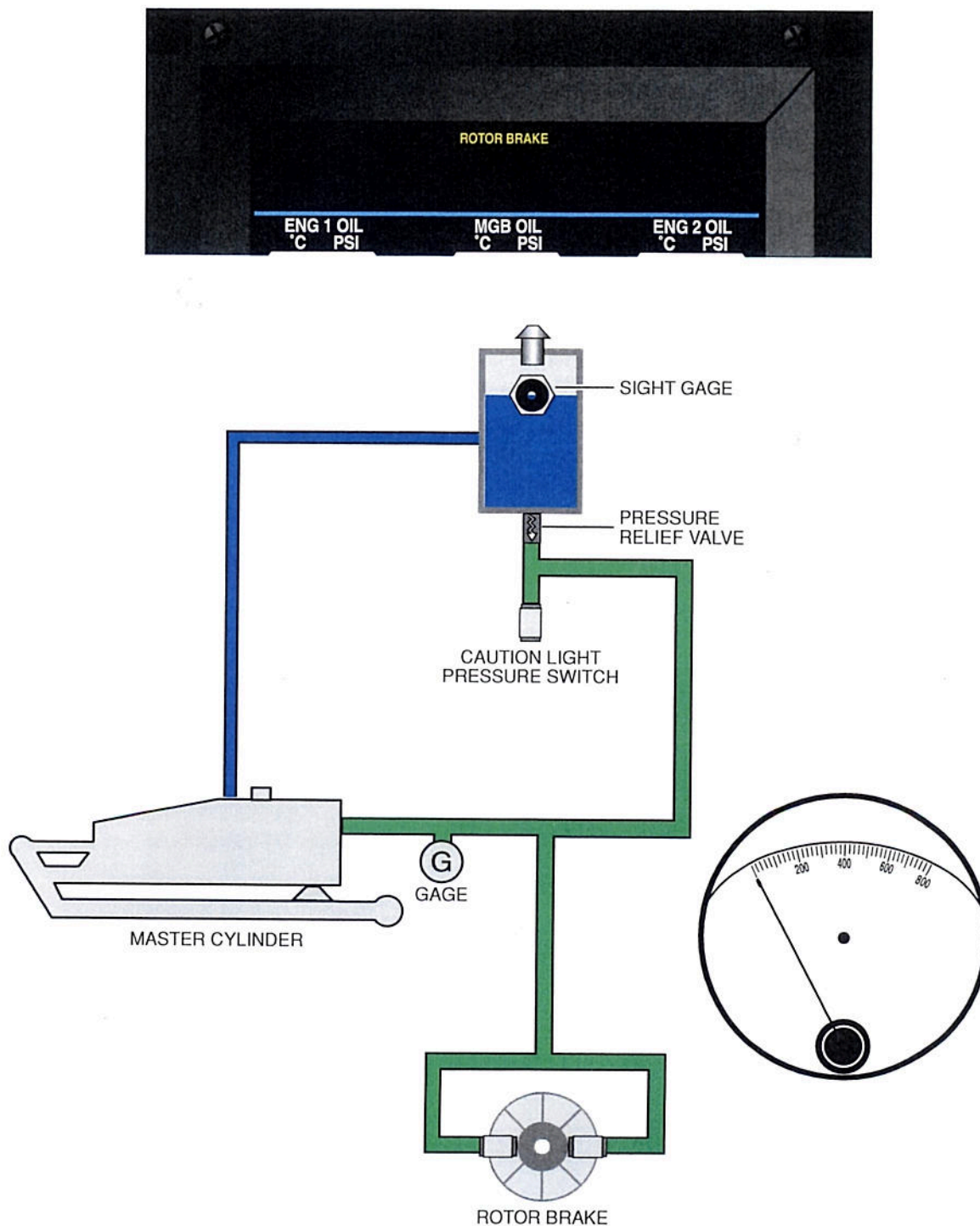
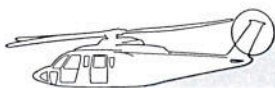


Figure 10-15. Manual Rotor Brake