Figure 9-1. *Single-engine airspeed indicator.*

In addition to the markings listed above, small multi-engine airplanes have a red radial line to indicate single-engine minimum controllable airspeed (V_{MC}). A blue radial line is used to indicate single-engine best rate of climb speed at maximum weight at sea level (V_{YSE}). *[Figure 9-2]*

Powerplant

The Powerplant Limitations portion describes operating limitations on an aircraft's reciprocating or turbine engine(s). These include limitations for takeoff power, maximum continuous power, and maximum normal operating power, which is the maximum power the engine can produce without any restrictions and is depicted by a green arc. Other items that can be included in this area are the minimum and maximum oil and fuel pressures, oil and fuel grades, and propeller operating limits. *[Figure 9-3]*

All reciprocating-engine powered aircraft must have a revolutions per minute (rpm) indicator for each engine. Aircraft equipped with a constant-speed propeller or rotor system use a manifold pressure gauge to monitor power output and a tachometer to monitor propeller or rotor speed. Both instruments depict the maximum operating limit with a red radial line and the normal operating range with a green arc. *[Figure 9-4]* Some instruments may have a yellow arc to indicate a caution area.

Figure 9-2. *Multi-engine airspeed indicator.*

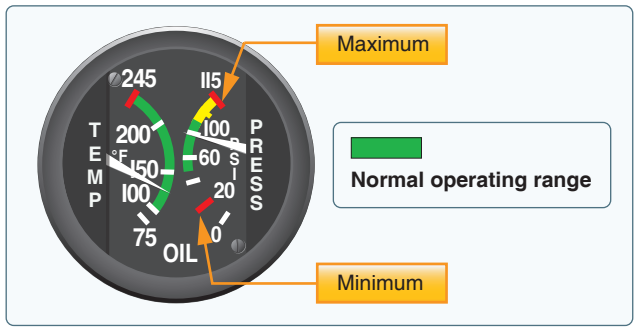

Figure 9-3. *Minimum, maximum, and normal operating range markings on oil gauge.*

Weight and Loading Distribution

Weight and Loading Distribution contains the maximum certificated weights, as well as the center of gravity (CG) range. The location of the reference datum used in balance computations is included in this section. Weight and balance computations are not provided in this area, but rather in the weight and balance section of the AFM/POH.

Figure 9-4. *Manifold pressure gauge (top) and tachometer (bottom).*