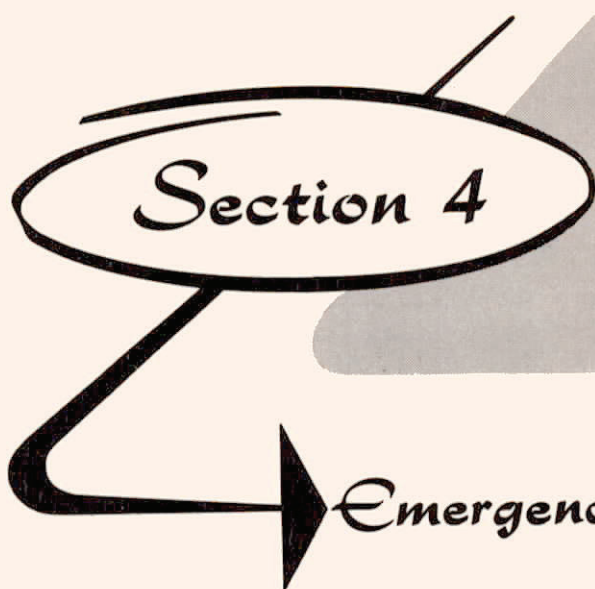




Emergency Operation Procedures

SINGLE ENGINE FLIGHT

The Twin-Bonanza handles and performs well on one engine, with ample power for sustained flight and safe maneuvering. It has no unpleasant characteristics, and can be trimmed for hands-off flight as long as sufficient airspeed is maintained.

Single-engine flight is an emergency operation, which you should practice until you become familiar with both the procedures and the feel of the airplane. Particularly on take-off, an engine failure will call for swift, unhesitating action on your part, to add power, secure the dead engine and trim the airplane. Practice these techniques until they become instinctive. They are set forth in check-list form, later in this section.

Generally speaking, the most important consideration in single-engine flight is airspeed. The minimum safe single-engine speed is the lowest speed at which you can maintain a safe margin of control with one engine stopped and the other operating at full power. The minimum single-engine hands-off trim speed is the minimum speed at which the airplane can be trimmed for level flight with one engine inoperative.

The minimum safe single-engine speed for the Twin-Bonanza is 90 mph and the minimum single-engine hands-off trim speed is approximately 110 mph.

As shown on the graph in this section, the best rate-of-climb speed on one engine is approximately 100 mph IAS for all altitudes. The single-engine best-rate-of-climb speed is extremely important for best performance in an emergency; if the speed is allowed to wander from the optimum, your rate-of-climb will decrease (or if you are above the critical single-engine altitude, your rate-of-sink will increase).

At the maximum gross weight of 6,000 pounds, your Twin-Bonanza will climb 300 fpm at sea level on one

engine; its single-engine ceiling at maximum gross weight is 8400 feet. You should note, however, that these figures are based on the NACA Standard Day, and to estimate what your airplane will do under given circumstances, you must convert these figures to your local situation. Also, they are based on flight tests run with an airplane properly rigged and with engines capable of developing their full rated power. If you fail to follow sound maintenance practices for both your airplane and your engines, you cannot expect its performance to be comparable. Moreover, you will increase the chances that you will need the information in this section.

SINGLE-ENGINE PROCEDURE

1. Add power to maintain altitude and airspeed. 3100 rpm is the maximum engine speed allowable for continuous operation.
2. *For dead engine*, move the mixture lever to Idle Cut-Off. Pull the propeller lever full aft to feather propeller.

NOTE

The feathering motor will continue to run, and the indicator light will burn, for several seconds after the propeller is fully feathered. Feathering oil pressure is by-passed automatically once feathering is completed.

3. Retract the landing gear and wing flaps. To realize maximum single-engine performance, the landing gear and wing flaps must be retracted.
4. When the dead engine stops rotating, shut off the ignition switch and generator switch.
5. Turn the fuel tank selector valve for the dead engine to "OFF".