# PILOT'S OPERATING HANDBOOK



# Skyhawk

CESSNA MODEL 172N



When landing in a strong crosswind, use the minimum flap setting required for the field length. If flap settings greater than 20° are used in sideslips with full rudder deflection, some elevator oscillation may be felt at normal approach speeds. However, this does not affect control of the airplane. Although the crab or combination method of drift correction may be used, the wing-low method gives the best control. After touchdown, hold a straight course with the steerable nose wheel and occasional braking if necessary.

The maximum allowable crosswind velocity is dependent upon pilot capability as well as aircraft limitations. With average pilot technique, direct crosswinds of in be handled with safety.

# BALKED LANDING

In a balked landing (go-around) climb, reduce the flap setting to 20° immediately after full power is applied. If obstacles must be cleared during the go-around climb, reduce the wing flap setting to 10° and maintain a safe airspeed until the obstacles are cleared. Above 3000 feet, lean the mixture to obtain maximum RPM. After clearing any obstacles, the flaps may be retracted as the airplane accelerates to the normal flaps-up climb speed.

# COLD WEATHER OPERATION

# STARTING

Prior to starting on cold mornings, it is advisable to pull the propeller through several times by hand to "break loose" or "limber" the oil, thus conserving battery energy.

### NOTE

When pulling the propeller through by hand, treat it as if the ignition switch is turned on. A loose or broken ground wire on either magneto could cause the engine to fire.

In extremely cold (-18°C and lower) weather, the use of an external preheater and an external power source are recommended whenever possible to obtain positive starting and to reduce wear and abuse to the engine and electrical system. Pre-heat will thaw the oil trapped in the oil cooler, which probably will be congealed prior to starting in extremely cold temperatures. When using an external power source, the position of the master switch is important. Refer to Section 7 under Ground Service Plug Receptacle for operating details.

Cold weather starting procedures are as follows:

1. With ignition switch OFF and throttle closed, prime the engine four to eight strokes as the propeller is being turned over by hand.

## NOTE

Use heavy strokes of primer for best atomization of fuel. After priming, push primer all the way in and turn to locked position to avoid possibility of engine drawing fuel through the primer.

- 2. Propeller Area -- CLEAR.
- Avionics Power Switch -- OFF.
- Master Switch -- ON.
- Mixture -- FULL RICH.
- Throttle -- OPEN 1/8 INCH.
- Ignition Switch -- START.
- Release ignition switch to BOTH when engine starts.
- Oil Pressure -- CHECK.

# Without Preheat:

- 1. Prime the engine six to ten strokes while the propeller is being turned by hand with the throttle closed. Leave the primer charged and ready for a stroke.
- 2. Propeller Area -- CLEAR.
- 3. Avionics Power Switch -- OFF.
- Master Switch -- ON.
- Mixture -- FULL RICH.
- Ignition Switch -- START.
- Pump throttle rapidly to full open twice. Return to 1/8 inch open
- Release ignition switch to BOTH when engine starts.
- Continue to prime engine until it is running smoothly, or alternately, pump throttle rapidly over first 1/4 of total travel.
- Oil Pressure -- CHECK.
- 11. Pull carburetor heat knob full on after engine has started. Leave on until engine is running smoothly.
- 12. Primer -- LOCK.

# NOTE

If the engine does not start during the first few attempts, or if engine firing diminishes in strength, it is probable that the spark plugs have been frosted over. Preheat must be used before another start is attempted.