



**WALK-AROUND**

Figure 4-1

**4.5 NORMAL PROCEDURES CHECK LIST**

**PREFLIGHT CHECK**

- Control wheel .....release belts
- Master switch .....ON
- Fuel quantity gauges .....check
- Master switch .....OFF
- Ignition .....OFF
- Exterior .....check for damage
- Control surfaces .....check for interference - free of ice, snow, frost
- Hinges .....check for interference
- Wings .....free of ice, snow, frost
- Stall warning .....check
- Navigation lights .....check
- Fuel tanks .....check supply visually - secure caps
- Fuel tank sumps .....drain
- Fuel vents .....open
- Main gear struts .....proper inflation (4.50 in.)
- Tires .....check
- Brake blocks .....check

- Pitot head .....remove cover-holes clear
- Windshield .....clean
- Propeller and spinner .....check
- Fuel and oil .....check for leaks
- Oil .....check level
- Dipstick .....properly seated
- Cowling .....secure
- Inspection covers .....secure
- Nose wheel tire .....check
- Nose gear strut .....proper inflation (3.25 in.)
- Air inlets .....clear
- Alternator belt .....check tension
- Tow bar and control locks .....stow
- Baggage .....stowed properly - secure
- Baggage door .....close and secure
- Fuel strainer .....drain
- Primary flight controls .....proper operation
- Cabin doors .....close and secure
- Required papers .....on board
- Seat belts and harness .....fastened - check inertia reel

**BEFORE STARTING ENGINE**

Brakes.....set  
Carburetor heat.....full COLD  
Fuel selector.....desired tank

**STARTING ENGINE WHEN COLD**

Throttle .....1/4" open  
Master switch .....ON  
Electric fuel pump .....ON  
Mixture .....full RICH  
Starter .....engage  
Throttle .....adjust  
Oil pressure.....check

If engine does not start within 10 sec. prime and repeat starting procedure.

**STARTING ENGINE WHEN HOT**

Throttle .....1/2" open  
Master switch .....ON  
Electric fuel pump .....ON  
Mixture .....full RICH  
Starter .....engage  
Throttle .....adjust  
Oil pressure.....check

**STARTING ENGINE WHEN FLOODED**

Throttle .....open full  
Master switch .....ON  
Electric fuel pump .....OFF  
Mixture .....idle cut-off  
Starter .....engage  
Mixture .....advance  
Throttle .....retard  
Oil pressure.....check

**STARTING WITH EXTERNAL POWER SOURCE**

Master switch .....OFF  
Terminals .....connect  
Plug .....insert in fuselage  
Master switch .....ON  
Proceed with normal start  
Master switch .....OFF  
Plug.....disconnect from fuselage  
Master switch.....ON - check ammeter  
Oil pressure.....check

**WARM-UP**

Throttle.....800 to 1200 RPM

**TAXIING**

Chocks.....Removed  
Taxi area.....clear  
Throttle .....apply slowly  
Brakes .....check  
Steering.....check

**GROUND CHECK**

Throttle.....2000 RPM  
Magnetos .....max. drop 175 RPM  
                        -max. diff. 50 RPM  
Vacuum.....5.0" Hg.  $\pm$  .1  
Oil temp .....check  
Oil pressure.....check  
Air conditioner.....check  
Annunciator panel.....press-to-test  
Carburetor heat.....check  
Engine is warm for takeoff when throttle can be opened without engine faltering.  
Electric fuel pump .....OFF  
Fuel pressure.....check

**BEFORE TAKEOFF**

Master switch .....ON  
 Flight instruments .....check  
 Fuel selector .....proper tank  
 Electric fuel pump .....ON  
 Engine gauges .....check  
 Carburetor heat.....OFF  
 Seat backs.....erect  
 Mixture.....set  
 Belts/harness .....fastened  
 Empty seats.....seat belts snugly fastened  
 Flaps .....set  
 Trim tab .....set  
 Controls .....free  
 Doors .....latched  
 Air conditioner.....OFF

**TAKEOFF**

**NORMAL**

Flaps .....set  
 Tab.....set  
 Accelerate to 60 to 75 MPH IAS (52 to 65 KTS IAS)  
 Control wheel.....back pressure to rotate to climb attitude

**SHORT FIELD, OBSTACLE CLEARANCE**

Flaps .....25° (second notch)  
 Accelerate to 47-56 MPH IAS (41 to 49 KTS IAS) depending on aircraft weight  
 Control wheel.....back pressure to rotate to climb attitude  
 After breaking ground, accelerate to 52-62 MPH IAS (45 to 54 KTS IAS) depending on aircraft weight  
 Accelerate to best flaps up angle of climb speed - 74 MPH IAS (64 KTS IAS), slowly retract the flaps and climb past the obstacle.  
 Accelerate to best flaps up rate of climb speed - 87 MPH IAS (76 KTS IAS)

**SOFT FIELD**

Flaps .....25° (second notch)  
 Accelerate to 47-56 MPH IAS (41 to 49 KTS IAS) depending on aircraft weight  
 Control wheel.....back pressure to rotate to climb attitude  
 After breaking ground, accelerate to 52-62 MPH IAS (45 to 54 KTS IAS) depending on aircraft weight  
 Accelerate to best flaps up rate of climb speed 87 MPH IAS (76 KTS IAS)  
 Flaps .....retract slowly

**CLIMB**

Best rate (flaps up) .....87 MPH IAS (76 KTS IAS)  
 Best angle (flaps up) .....74 MPH IAS (64 MPH IAS)  
 En route .....100 MPH IAS (87 KTS IAS)  
 Electric fuel pump .....OFF at desired altitude

**CRUISING**

Reference performance charts and Avco-Lycoming Operator's Manual.  
 Normal max power .....75%  
 Power.....set per power table  
 Mixture .....adjust

**APPROACH AND LANDING**

Fuel selector .....proper tank  
 Seat backs.....erect  
 Belts/harness .....fasten  
 Electric fuel pump .....ON  
 Mixture.....set  
 Flaps.....set - 115 MPH IAS (100 KTS IAS) max  
 Air conditioner .....OFF  
 Trim to 86 MPH IAS (75 KTS IAS)  
 Final approach speed (flaps 40°) .....76 MPH IAS (66 KTS IAS)

**STOPPING ENGINE**

Flaps .....retract  
Electric fuel pump .....OFF  
Air conditioner .....OFF  
Radio's .....OFF  
Throttle.....full aft  
Mixture .....idle cut-off  
Magnetos.....OFF  
Master switch .....OFF

**PARKING**

Parking brake .....set  
Control wheel.....secured with belts  
Flaps .....full up  
Wheel chocks .....in place  
Tie downs .....secure