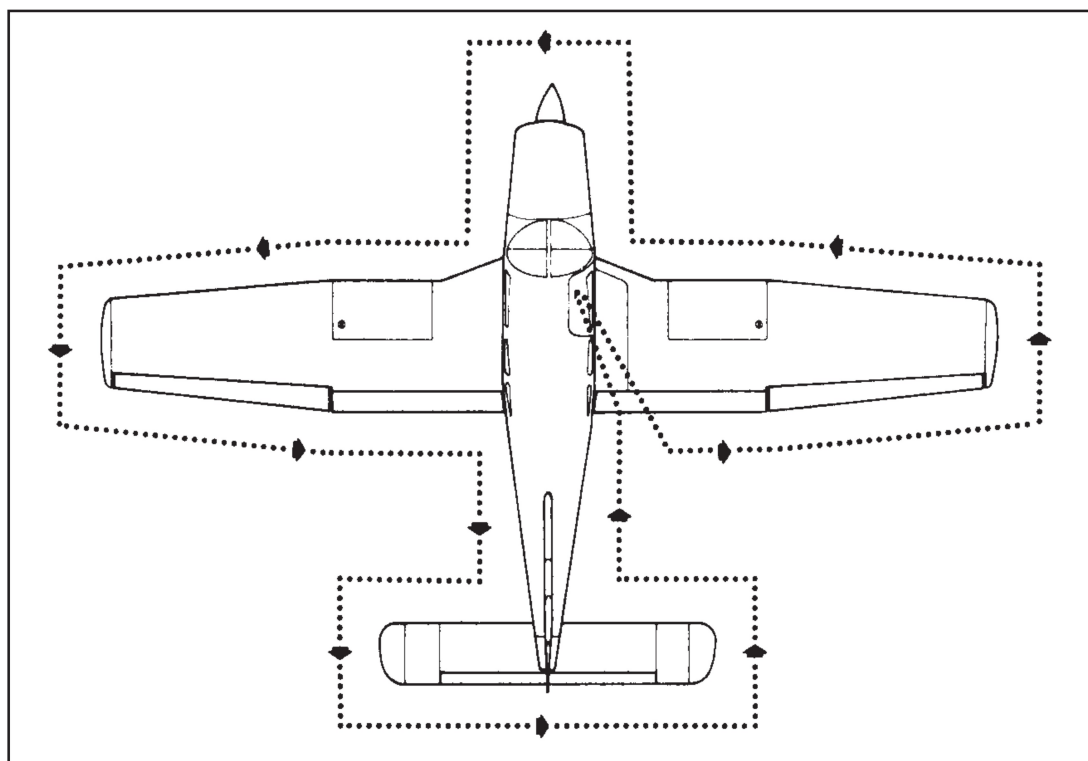




### WALK-AROUND

Figure 4-1

## 4.5 NORMAL PROCEDURES CHECK LIST

### PREFLIGHT CHECK

#### COCKPIT

|                                |                    |
|--------------------------------|--------------------|
| Control wheel .....            | release restraints |
| Parking brake .....            | set                |
| All switches .....             | OFF                |
| All avionics .....             | OFF                |
| Mixture .....                  | idle cut-off       |
| Master switch .....            | ON                 |
| Fuel gauges .....              | check quantity     |
| Annunciator panel .....        | check              |
| Master switch .....            | OFF                |
| Primary flight controls .....  | proper operation   |
| Flaps .....                    | proper operation   |
| Trim .....                     | neutral            |
| Pitot and static systems ..... | drain              |
| Windows .....                  | check clean        |

**SECTION 4**  
**NORMAL PROCEDURES**

**PIPER AIRCRAFT CORPORATION**  
**PA-28-236, DAKOTA**

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Required papers .....check on board  
Tow bar and baggage..... stow properly  
secure  
Baggage door..... close and secure

**RIGHT WING**

Surface condition.....clear of ice, frost, snow  
Flap and hinges.....check  
Aileron and hinges.....check  
Wing tip and lights .....check  
Fuel tank..... check supply  
visually - secure cap  
Fuel tank vent ..... clear  
Fuel tank sump .....drain and check for water,  
sediment and proper fuel  
Tie down and chock..... remove  
Main gear strut..... proper  
inflation (4.5 in.)  
Tire .....check  
Brake block and disc.....check  
Fresh air inlet..... clear

**NOSE SECTION**

General condition .....check  
Cowling .....secure  
Windshield..... clean  
Propeller and spinner .....check  
Air inlets..... clear  
Alternator belt..... check tension  
Chock ..... remove  
Nose gear strut..... proper  
inflation (3.25 in.)  
Nose wheel tire .....check  
Oil.....check quantity  
Dipstick .....properly seated  
Fuel strainer.....drain

**LEFT WING**

Surface condition.....clear of ice, frost, snow  
Fresh air inlet..... clear

Chock ..... remove  
Main gear strut..... proper  
inflation (4.5 in.)  
Tire .....check  
Brake block and disc.....check  
Fuel tank..... check supply  
visually - secure cap  
Fuel tank vent ..... dear  
Fuel tank sump .....drain and check for water,  
sediment and proper fuel  
Tie down..... remove  
Pi tot head..... remove cover -  
holes clear  
Wing tip and lights ..... check  
Aileron and hinges.....check  
Flap and hinges..... check

#### FUSELAGE

Antennas .....check  
Left static pad ..... clear  
Empennage ..... clear of ice, frost, snow  
Fresh air inlet..... clear  
Stabilator and trim tab .....check  
Tie down..... remove  
Right static pad..... clear  
Master switch..... ON  
Cockpit lighting .....check  
Nav and strobe lights .....check  
Stall warning: .....check  
Pitot heat.....check  
All switches .....OFF  
Passengers .....board  
Cabin door ..... close and secure  
Seat belts and harness ..... fasten/ adjust -  
check inertia reel

#### BEFORE STARTING ENGINE

Parking brake..... set  
Propeller ..... full INCREASE rpm  
Fuel selector .....desired tank  
Carburetor heat .....OFF  
Radios.....OFF

**STARTING ENGINE WHEN COLD**

Master switch..... ON  
Electric fuel pump ..... ON  
Mixture ..... full RICH  
Throttle ..... 1 / 4 open  
Starter .....engage  
Throttle ..... adjust  
Oil pressure.....check  
If engine does not start, add 1 to 3 strokes of priming pump and repeat above. After engine starts, lock primer.

**STARTING ENGINE WHEN HOT**

Throttle ..... I / 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  
All electrical equipment.....OFF  
Terminals..... connect  
External power plug.....insert in fuselage

Proceed with normal start

Throttle..... lowest possible RPM  
External power plug..... disconnect from fuselage  
Master switch..... ON - check ammeter  
Oil pressure.....check

### **WARM-UP**

Throttle..... 1000 to 1200 RPM

### **TAXIING**

Chocks..... removed  
Taxi area..... clear  
Parking brake .....release  
Throttle.....apply slowly  
Prop .....high RPM  
Brakes.....check  
Steering.....check

### **GROUND CHECK**

Parking brake..... set  
Propeller ..... full INCREASE  
Throttle.....2000 RPM  
Magnetos ..... max. drop 175 RPM - max. diff.  
50 RPM  
Vacuum .....5.0" Hg. + .1  
Oil temp.....check  
Oil pressure.....check  
Annunciator panel..... press-to-test  
Air conditioner.....check  
Carburetor heat .....check  
Propeller .....exercise ~ then full INCREASE  
Electric fuel pump .....OFF  
Fuel pressure.....check  
Throttle..... retard

**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  
Primer..... locked  
Mixture ..... set  
Prop ..... set  
Belts/ harness..... fastened / adjusted  
Empty seats.....seat belts snugly fastened  
Flaps ..... set  
Trim tabs ..... set  
Controls .....free  
Doors..... latched  
Air conditioner.....OFF  
Parking brake.....release

**TAKEOFF**

**NORMAL**

Flaps ..... set  
Tab..... set  
Accelerate to 60 to 65 KIAS.  
Control wheel .....back pressure to rotate to climb attitude

**SHORT FIELD, OBSTACLE CLEARANCE**

Flaps ..... 25° (second notch)  
Accelerate to 50 to 60 KIAS depending on aircraft weight.  
Control wheel .....back pressure to rotate to climb attitude  
After breaking ground, accelerate to 73 KIAS and climb past obstacle.  
Accelerate to best rate of climb speed - 85 KIAS and slowly retract the flaps.

**SHORT FIELD, NO OBSTACLE**

Flaps ..... 25° (second notch)  
Accelerate to 50 to 60 KIAS depending upon aircraft weight.  
Control wheel .....back pressure to rotate to climb attitude

Accelerate to best rate of climb speed - 85 KIAS and slowly retract the flaps while climbing out.

#### **SOFT FIELD, OBSTACLE CLEARANCE**

Flaps ..... 25° (second notch)

Accelerate; pull nose wheel off as soon as possible.

Control wheel ..... lift off at lowest possible airspeed

Just above the ground, accelerate to best angle of climb speed - 73 KIAS and climb past obstacle.

Continue climb while accelerating to best rate of climb speed - 85 KIAS.

Flaps ..... retract slowly

#### **SOFT FIELD, NO OBSTACLE**

Flaps ..... 25° (second notch)

Accelerate; pull nose wheel off as soon as possible.

Control wheel ..... lift off at lowest possible airspeed

Just above the ground, accelerate to best rate of climb speed - 85 KIAS and climb out.

Flaps ..... retract slowly

#### **CLIMB**

Best rate (3000 lb) (flaps up) ..... 85 KIAS

Best angle (3000 lb) (flaps up) ..... 73 KIAS

En route ..... 100 KIAS

Electric fuel pump ..... OFF at desired altitude

#### **CRUISING**

Reference performance charts, Avco-Lycoming Operator's Manual and power setting table.

Normal max power ..... 75%

Power ..... set per power table

Mixture ..... adjust

**DESCENT**

**NORMAL**

Throttle ..... as required for 1000 FPM  
descent  
Propeller ..... 2400 RPM  
Airspeed ..... 137 KIAS  
Mixture ..... rich  
Carburetor heat ..... on if required

**POWER OFF**

Carburetor heat ..... on if required  
Throttle ..... closed  
Airspeed ..... as required  
Mixture ..... as required  
Power ..... verify with throttle every  
30 seconds

**APPROACH AND LANDING**

Fuel selector ..... proper tank  
Seat backs ..... erect  
Belts / harness ..... fasten / adjust  
Electric fuel pump ..... ON  
Air conditioner ..... OFF  
Mixture ..... set  
Propeller ..... set  
Flaps ..... down - 102 KIAS max.  
Trim to 72 KIAS.

**STOPPING ENGINE**

Flaps ..... retract  
Electric fuel pump ..... OFF  
Air conditioner ..... OFF  
Radios ..... OFF  
Propeller ..... full INCREASE  
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