



## NORMAL PROCEDURES CHECKLIST

NOT INTENDED FOR REAL FLIGHTS.



## **BEFORE STARTING ENGINE**

1. Preflight inspection – COMPLETE
2. Seats, belts, Shoulder Harnesses – ADJUST and LOCK
3. Fuel Selector Valve – BOTH
4. Avionics Power Switch, Autopilot (if installed), Electrical pump equipment – OFF

### **CAUTION**

The avionics power switch must be OFF during engine start to prevent possible damage to avionics.

5. Brakes – TEST and SET
6. Cowl flaps – OPEN (move lever out of locking hole to reposition)
7. Landing gear lever – DOWN
8. Circuit Breakers – CHECK IN

## **STARTING ENGINE**

1. Mixture – RICH
2. Propeller – HIGH RPM
3. Carburetor heat – COLD
4. Throttle – PUMP once, or as much as six times if engine is very hot; leave open ¼ inch.
5. Master switch – ON
6. Propeller area – CLEAR
7. Ignition Switch – START (release when engine starts)
8. Oil Pressure – CHECK
9. Flashing Beacon and Navigation Lights – ON as required
10. Avionics Power Switch – ON
11. Radios – ON

## **BEFORE TAKEOFF**

1. Cabin doors and windows – CLOSED and LOCKED
2. Parking brake – SET
3. Flight Controls – FREE and CORRECT
4. Flight Instruments – SET
5. Fuel Selector Valve – BOTH
6. Mixture – RICH
7. Auxiliary Fuel pump – ON (check for rise in fuel pressure), then OFF

**NOTE**

In flight, gravity feed will normally supply satisfactory fuel flow if the engine-driven fuel pump should fail. However, if a fuel pump failure causes the fuel pressure to drop below 0.5 PSI, use the auxiliary fuel pump to assure proper engine operation.

8. Elevator and rudder trim – TAKEOFF
9. Throttle – 1700 RPM
  - a. Magnetos – CHECK (RPM drop should not exceed 175 RPM on either magneto or 50 RPM differential between magnetos)
  - b. Propeller – CYCLE from high to low RPM; return to high RPM (full in)
  - c. Carburetor heat – CHECK (for RPM drop)
  - d. Engine Instrument and ammeter – CHECK
  - e. Suction gage – CHECK
10. Throttle – 800 - 1000 RPM
11. Radios – SET
12. Autopilot (if installed) – OFF
13. Flashing Beacon, Navigation Lights and/or Strobe lights – ON as required
14. Throttle friction lock – ADJUST
15. Parking Brake – RELEASE

**TAKEOFF****NORMAL TAKEOFF**

1. Wing flaps – 0°-20°
2. Carburetor heat – COLD
3. Power – FULL THROTTLE and 2400 RPM
4. Elevator Control – LIFT THROTTLE at 50 KIAS

**NOTE**

When the nose wheel is lifted, the gear motor may run 1-2 seconds to restore hydraulic pressure.

5. Climb speed – 70 KIAS (Flaps 20°)  
80 KIAS (Flaps UP)
6. Brakes – APPLY momentarily when airborne
7. Climb speed – 55 KIAS until all obstacles are cleared
9. Landing gear – RETRACT after obstacles are cleared
10. Wing flaps – RETRACT slowly after reaching 75 KIAS



## **ENROUTE CLIMB**

### **NORMAL CLIMB**

1. Airspeed – 90-100 KIAS
2. Power – 23 INCHES Hg and 2400 RPM
3. Fuel selector Valve – BOTH
4. Mixture – FULL RICH (mixture may be leaned above 3000 feet)
5. Cowl flaps – OPEN as required

### **MAXIMUM PERFORMANCE**

1. Airspeed – 88 KIAS at sea level 75 KIAS at 10,000 feet
2. Power – FULL THROTTLE and 2400 RPM
3. Fuel selector Valve – BOTH
4. Mixture – FULL RICH (mixture may be leaned above 3000 feet)
5. Cowl Flaps – FULL OPEN

### **CRUISE**

1. Power – 15-23 INCHES HG, 2100-2400 RPM (no more than 75% power)
2. Elevator and rudder trim – ADJUST
3. Mixture – LEAN
4. Cowl flaps – CLOSED

### **DESCENT**

1. Fuel Selector Valve – BOTH
2. Power – AS DESIRED
3. Carburetor heat – AS REQUIRED to prevent carburetor icing
4. Mixture – ENRICHEN as required
5. Cowl flaps – CLOSED
6. Wing Flap – AS DESIRED (0°-10° below 140 KIAS, 10°-40° below 95 KIAS)

### **NOTE**

The landing gear may be used below 140 KIAS to increase the rate of descent.



## **BEFORE LANDING**

1. Seats, Belts, Shoulder Harnesses – ADJUST and LOCK
2. Fuel selector valve – BOTH
3. Landing gear – DOWN (below 140 KIAS)
4. Landing gear – CHECK (observe main gear down and green indicator light illuminated)
5. Mixture – RICH
6. Carburetor Heat – ON (apply full heat before closing throttle)
7. Propeller – HIGH RPM
8. Autopilot (if installed) – OFF

## **LANDING**

### **NORMAL LANDING**

1. Airspeed – 70-80 KIAS (Flaps up)
2. Wing flaps – AS DESIRED (0°-10° below 140 KIAS, 10°-40° below 95 KIAS)
3. Airspeed – 65-75 KIAS (Flaps Down)
4. Trim – ADJUST
5. Touchdown – MAIN WHEELS FIRST
6. Landing roll – LOWER NOSE WHEEL GENTLY
7. Braking – Minimum required.

### **SHORT FIELD LANDING**

1. Airspeed – 70-80 KIAS (Flaps UP)
2. Wing flaps – 40°(below 95 KIAS)
3. Airspeed – MAINTAIN 63 KIAS
4. Trim – ADJUST
5. Power – REDUCE to idle as obstacle is cleared
6. Touchdown – MAIN WHEELS FIRST
7. Brakes – APPLY HEAVILY
8. Wing flaps – RETRACT for maximum brake effectiveness

## **BALKED LANDING**

1. Power – FULL THROTTLE and 2400 RPM
2. Carburetor heat – COLD
3. Wing flaps – RETRACT to 20°
4. Climb speed – 75 KIAS
5. Wing flaps – RETRACT slowly after reaching 75 KIAS
6. Cowl flaps – OPEN

## **AFTER LANDING**

1. Wing flaps – UP
2. Carburetor heat – COLD
3. Cowl flaps – OPEN

## **SECURING AIRPLANE**

1. Parking brake – SET
2. Throttle – IDLE
3. Avionics power switch, Electrical equipment – OFF
4. Mixture – IDLE CUTOFF (pulled full out)
5. Ignition switch – OFF
6. Master switch – OFF
7. Control lock – INSTALL
8. Fuel selector Valve -- RIGHT