

**BEFORE STARTING ENGINE**

**REFUEL WITH AVGAS ONLY  
USE W100PLUS ENGINE OIL ONLY**  
 EXTERNAL INSPECTION.....COMPLETED  
 OIL QTY (> 6 qts) ..... CHECKED  
 FUEL QTY (visually)..... CHECKED  
 TOW BAR.....REMOVED  
 ALL COVERS.....REMOVED  
 BAGGAGE DOOR..... LOCKED  
 ELECTRICAL SWITCHES.....OFF  
 SET BELTS & SEAT..... CHECKED  
 GEAR HANDLE.....DOWN  
 MASTER SWITCH.....ON  
 CIRCUIT BREAKERS..... IN  
 BRAKES.....SET  
 PROP..... FULL RPM  
 FUEL SELECTOR.....SET  
 FUEL IN ENGINE MONITOR.....SET/CHECKED  
 ALT AIR..... CLOSED

**ENGINE START UP**

AVIONIC MASTER.....OFF  
 ANTI COLLISON LIGHT.....ON

**COLD ENGINE**

THROTTLE..... 1,5 CM OPEN  
 MIXTURE ..... RICH  
 FUEL PUMP.....ON for 3-5 sec. then OFF  
 MIXTURE ..... IDLE CUT-OFF  
 PROP AREA..... CLEAR  
 STARTER.....ENGAGE

WHEN ENGINE IGNITES

MIXTURE ..... ½ RICH

**STARTING HOT ENGINE**

THROTTLE..... 1,5 CM OPEN  
 MIXTURE ..... IDLE CUTOFF  
 FUEL PUMP..... OFF  
 STARTER.....ENGAGE

WHEN ENGINE IGNITES

MIXTURE ..... ½ RICH

**STARTING OVERFLOODED ENGINE**

FUEL PUMP..... OFF  
 THROTTLE..... FULL  
 MIXTURE ..... IDLE CUTOFF  
 STARTER.....ENGAGE

WHEN ENGINE IGNITES

THROTTLE..... RETARD  
 MIXTURE ..... ½ RICH

OIL PRESSURE.....CHECKED

**AFTER ENGINE START**

THROTTLE ..... 1200 RPM  
 AVIONIC MASTER.....ON  
 TRANSPONDER.....CHECK GND

**TAXI/BEFORE TAKEOFF**

BRAKES AND STEERING.....CHECKED  
 FLIGHT INSTRUMENTS.....CHECKED  
 ENGINE INSTRUMENTS.....CHECKED  
 AVIONICS, A/P, ALT..... CHECKED AND SET  
 TRIM TABS..... SET  
 FLAPS.....AS REQUIRED  
ENGINE RUN UP  
 FUEL SELECTOR..... FULLEST TANK  
 MIXTURE ..... RICH  
 THROTTLE ..... 2300 RPM  
 PROP CONTROL.....CHECKED  
 MAGNETOS.....CHECKED  
 VOLTS; ALT AMPS.....CHECKED  
 WARNING LIGHTS ..... OFF  
 FUEL PRESSURE.....CHECKED  
 THROTTLE ..... IDLE

**TAKEOFF BRIEFING**

- EMERGENCY BRIEFING
- RUNWAY & LENGTH
- NORMAL OR SHORTFIELD TAKEOFF?
- FLAP SETTING (std. 0°, shortfield 25°/2nd notch)
- SPEEDS (V<sub>r</sub> 65kt, V<sub>x</sub> 78kt, V<sub>y</sub> 87kt)
- ROUTE AND HEIGHT
- FREQUENCY

**LINE UP/TAKEOFF**

PITOT HEAT .....AS REQUIRED  
 LANDING LIGHT.....ON  
 FUEL PUMP.....ON  
 MIXTURE ..... RICH  
 HEADING & HDG BUG..... CHECKED RWY HDG  
 DOOR..... LOCKED

**CLIMB**

LANDING GEAR ..... UP  
 FLAPS ..... UP  
 FUEL PUMP ..... OFF  
 CLIMB SPEED ..... 87KT  
 POWER ..... 26 MP / 2550 RPM / MIX RICH  
 CHT (<400°F) ..... MONITOR  
 EGT (<1450°F) ..... MONITOR  
 Increase speed, check mixture rich to reduce temp.  
 LIGHTS ..... AS RQD  
 ALTIMETER (@ Transition Alt) ..... SET 1013

**CRUISE**

POWER (55 – 65 – MAX 75 %) .... CHECKED & SET  
 MIXTURE ..... LEAN AS RQD  
 EGT (min. 50°F below peak temp.) ..... MONITOR  
 ALT AMP ..... MONITOR

**DESCENT**

FUEL QTY, SELECTOR ..... CHECKED & SET  
 A/P & ALT SEL ..... CHECKED & SET  
 POWER ..... 18-22 MP / 2400 RPM / 38 LPH  
 MP/AIRSPEED/TEMP ..... MONITOR  
 ALTIMETERS (QNH @ TRANS. LEVEL) ..... SET

**APPROACH**

APPROACH BRIEFING ..... COMPLETED  
 MIXTURE ..... RICH  
 LANDING LIGHTS ..... ON  
 FUEL PUMP ..... ON  
 LANDING GEAR (below 130kt) .. DOWN – 3 GREEN  
 FLAPS (below 109 kt) ..... AS RQD  
 APPROACH SPEED ..... 75KT  
 PROP ..... FULL RPM  
 AUTOPILOT ..... CHECK DISCONNECT

**AFTER LANDING**

FLAPS ..... UP  
 FUEL PUMP ..... OFF  
 PITOT HEAT ..... OFF  
 MIXTURE ..... LEAN ½  
 LANDING LIGHTS ..... OFF

**PARKING**

PARKING BRAKE ..... ON  
 LIGHTS ..... OFF  
 AVIONICS MASTER ..... OFF  
 MIXTURE ..... IDLE CUT-OFF  
 MAGNETOS ..... OFF  
 MASTER SWITCH ..... OFF

CHEROKEE "ARROW"

SECTION IV

**Power Setting Table - Lycoming Model IO-360-B1E Series, 180 HP Engine**

Press. Alt Feet	99 HP - 55% Rated RPM AND MAN. PRESS.		117 HP - 65% Rated RPM AND MAN. PRESS.		135 HP - 75% Rated RPM AND MAN. PRESS.		Press. Alt Feet						
	2100	2200	2300	2400	2200	2300		2400					
SL	59	21.2	20.7	20.2	19.7	24.0	23.4	22.8	22.2	26.0	25.4	24.7	SL
1,000	55	21.0	20.5	20.0	19.5	23.8	23.2	22.5	22.0	25.8	25.1	24.5	1,000
2,000	52	20.7	20.3	19.7	19.3	23.5	22.9	22.3	21.8	25.5	24.8	24.2	2,000
3,000	48	20.5	20.0	19.5	19.1	23.2	22.7	22.0	21.5	25.3	24.6	24.0	3,000
4,000	45	20.3	19.8	19.3	18.9	23.0	22.5	21.8	21.3	25.1	24.3	23.8	4,000
5,000	41	20.0	19.6	19.1	18.6	22.7	22.2	21.6	21.1	FT	24.1	23.5	5,000
6,000	38	19.8	19.4	18.9	18.4	22.5	22.0	21.3	20.9	FT	23.3	22.7	6,000
7,000	34	19.6	19.2	18.7	18.2	22.0	21.8	21.1	20.7	FT	22.1	21.7	7,000
8,000	31	19.3	18.9	18.4	18.0	FT	21.5	20.9	20.5	FT	20.6	20.3	8,000
9,000	27	19.1	18.7	18.2	17.8	FT	20.6	20.3	20.0	FT	20.1	19.8	9,000
10,000	23	18.9	18.5	18.0	17.6	FT	20.1	19.8	19.5	FT	19.6	19.3	10,000
11,000	19	18.6	18.3	17.8	17.4	FT	19.6	19.3	19.0	FT	19.1	18.8	11,000
12,000	16	18.4	18.1	17.6	17.2	FT	19.1	18.8	18.5	FT	18.6	18.3	12,000
13,000	12	FT	17.8	17.4	17.0	FT	18.6	18.3	18.0	FT	18.1	17.8	13,000
14,000	9	FT	FT	17.1	16.8	FT	18.1	17.8	17.5	FT	17.6	17.3	14,000
15,000	5	FT	FT	FT	FT	FT	17.6	17.3	17.0	FT	17.1	16.8	15,000

To maintain constant power, correct manifold pressure approximately 0.17" Hg for each 10° F variation in carburetor air temperature from standard altitude temperature. Add manifold pressure for air temperatures above standard; subtract for temperatures below standard.