

**BEFORE STARTING THE ENGINE**

SEATS AND SEAT BELTS	ADJUST AND LOCK
FUEL SELECTOR	BOTH ON (TABS 22 Gals)
FUEL SHUT-OFF VALVE KNOB	CHECK SAFETY WIRED TO ON" POSITION"
RADIOS AND FLASHING VEACON	OFF""
BRAKES	TEST AND SET

**STARTING THE ENGINE**

MIXTURE	RICH
CARBURETOR HEAT	COLD
MASTER SWITCH	ON""
PRIMER	2-6 STROKES (NONE WHEN ENGINE IS WARM). PRIMER LOCKED
THROTTLE	OPEN 1/8 INCH
PROPELLER AREA	CLEAR
IGNITION SWITCH	START""
RELEASE IGNITION SWITCH	TO BOTH" WHEN ENGINE STARTS"
OIL PRESSURE	CHECK
RADIOS	TURN ON AND SET
ALTIMETER AND CLOCK	SET

**BEFORE TAKE-OFF**

PARKING BRAKE	SET
CABIN DOORS	CLOSED AND LOCKED
FLIGHT CONTROLS	CHECK
TRIM TAB	TAKE-OFF" SETTING"
THROTTLE SETTING	1700 RPM
ENGINE INSTRUMENTS AND AMMETER	CHECK
CARBURETOR HEAT	CHECK OPERATION
MAGNETOS	NOT EXCEED 125 RPM ON EITHER MAGNETO OR 50 RPM DIFFERENTIAL
AUXILIARY FUEL PUMP	CHECK OPERATION
SUCTION GAGE	CHECK (4.6 TO 5.4 INCHES OF MERCURY)
FLIGHT INSTRUMENTS AND RADIOS	SET
WING FLAPS	FLAPS 10 <sup>0</sup>
NAVIGATIONS LIGHTS AND FLASHING B ON"	
OPTIONAL AUTOPILOT OR WING LEVELE OFF""	

**NORMAL TAKE-OFF**

WING FLAPS	FLAPS 10 <sup>0</sup>
CARBURETOR HEAT	COLD

POWER	FULL THROTTLE (APPLIED SMOOTHLY)
AIRPLANE ATTITUDE	LIFT NOSE WHEEL AT 50K
CLIMB SPEED	ROTATE 50K 65K V <sub>x</sub> 79K V <sub>y</sub>
RETRACT FLAPS	(IF EXTENDED)

**MAXIMUM PERFORMANCE TAKE-OFF**

WING FLAPS	FLAPS 10 <sup>0</sup>
CARBURETOR HEAT	COLD
BRAKES	APPLY
POWER	FULL THROTTLE
BRAKES	RELEASE
AIRPLANE ATTITUDE	SLIGHTLY TAIL LOW
CLIMB SPEED	57K V <sub>x</sub> 75K V <sub>y</sub>
WING FLAPS	RETRACT AFTER OBSTACLES ARE CLEARED

**NORMAL CLIMB**

AIRSPEED	85K
POWER	FULL THROTTLE
MIXTURE	FULL RICH (MISTURE MAY BE LEANED ABOVE 5000 FEET)

**MAXIMUM PERFORMANCE CLIMB**

AIRSPEED	88 MPH AT SEA LEVEL TO 85 MPH AT 10,000 FEET
POWER	FULL THROTTLE
MIXTURE	FULL RICH (MIXTURE MAY BE LEANED ABOVE 3000 FEET)

**CRUISING**

POWER	2200 TO 2700 RPM
TRIM TAB	ADJUST
MIXTURE	LEAN WHEN POWER SETTING IS 75% OR LESS

**LET-DOWN**

MIXTURE	RICH
POWER	AS DESIRED
CARBURETOR HEAT	AS REQUIRED TO PREVENT CARBURETOR ICING

**BEFORE LANDING**

FUEL SELECTOR	BOTH ON""
MIXTURE	RICH
CARBURETOR HEAT	APPLY FULL HEAT BEFORE CLOSING THROTTLE
AIRSPEED	80 TO 90 MPH (FLAPS UP)
WING FLAPS	115K/10 <sup>0</sup> 90K/10 <sup>0</sup> -30 <sup>0</sup>

AIR SPEED	60-70K (FLAPS DOWN)
TRIM TAB	ADJUST
<b>BALKED LANDING (GO-AROUND)</b>	
POWER	FULL THROTTLE
CARBURETOR HEAT	COLD
WING FLAPS	RETRACT TO 1/2 - at 75MPH 100%
<b>AFTER LANDING</b>	
WING FLAPS	UP
CARBURETOR HEAT	COLD
<b>SECURE AIRCRAFT</b>	
MIXTURE	IDLE CUT-OFF (PULLED FULL OUT)
ALL SWITCHES	OFF
BRAKES	SET
CONTROL LOCK	INSTALLED