BEFORE STARTING THE ENGINE

1.	Preflight Inspection	COMPLETE
2.	Seat Belts & Shoulder Harness	ADJUST and LOCK
3.	Fuel Valve	ON
4.	All Electrical Switches	OFF
5.	Breakes	TEST and SET
6.	Controls	FREE MOVEMENT
7.	Elevator Trim	NEUTRAL
8.	Throttle	FREE, LEERLAUF
9.	Throttle Friction Lock	ADJUST
10.	Master Switch	IN

STARTING THE ENGINE

1.	Mixture	RICH
2.	Carburator Heat	COLD
3.	Propeller Control	FULL INCREASE (IN)
4.	Throttle	OPEN 1/4``
5.	Primer (none when engine warm)	1-6 STROKES as required
6.	Primer	CLOSE and LOCK
7.	Master Switch	ON
8.	Propeller Area	CLEAR
9.	Ignition Switch	START (and release)
10.	Oil Pressure	CHECK
11.	Alternator Field Switch	ON

BEFORE TAKEOFF

1.	Cabin Doors	LATCHED
2.	Flight Controls	FREE and CORRECT
3.	Elevator Trim	½ Nose Up (From Neutral)
4.	Fuel Valve	On
5.	Mixture	FULL REACH (IN)
6.	Brakes	SET
7.	Throttle	1900 RPM
8.	Magnetos (max drop 155, diff 50) (lean if above 5000ft)	CHECK
9.	Carburetor Heat (Check for RPM drop)	CHECK
10.	Engine Instruments, Ammeter & Suction Gage (4.5 to 5.5 in)	CHECK
11.	Throttle	1700 RPM
12.	Propeller control- move through range and return to	HIGH RPM
13.	Flight Instruments: Alt, Gyro & Radios	SET
14.	Carburetor Heat	COLD
15.	Lights	AS REQUIRED

TAKEOFF

NORMAL TAKEOFF

1.	Wing Flaps	0°
2.	Propeller Control	FULL INCREASE (IN)
3.	Throttle	FULL OPEN
4.	Elevator	¼ UP FROM NETR. (HOLD TAIL LOW)
5.	Lift off @	50 to 52 MPH
6.	Climb Speed	68 MPH
7.	Wind Drift Correction	APPLY

MAXIMUM PERFORMANCE TAKEOFF (50 ft. obstacle)

1.	Wing Flaps	30°
2.	Trim adjust	¾ NOSE UP From Neutral
3.	Propeller Control	FULL INCREASE (IN)
4.	Throttle	FULL OPEN
5.	Brakes	RELEASE
6.	Elevator	1/2 UP FROM NETR. (HOLD TAIL ON GRD.)
7.	Lift off @	44 to 48 MPH
8.	Climb Speed	58 MPH

CRUISE

1. Propeller Control 2250 to 2700 RPM
2. Throttle for designed Manifold Pressure
3. Mixture – lean (best economy: 2350 RPM at 20 inches, lean short bfr peak)

BEFORE LANDING

1. Mixture RICH
2. Carburetor Heat ON
3. Throttle (or as needed for approach) CLOSE
4. Airspeed max. 73 MPH
5. Flaps 30°
6. Airspeed 58 MPH
7. Propeller Control FULL INCREASE
8. Trim AS DESIRED

BALKED LANDING

1. Throttle FULL OPEN
2. Propeller FULL INCREASE (IN)
3. Carburetor Heat COLD
4. Flaps RETRACT to 0°
5. Climb Speed (Vx) 58 MPH (sea level)

NORMAL LANDING

1. Airspeed (to 50 ft obstacle) 58 MPH
2. FLAPS 30°
3. Trim ADJUST
4. Power IDLE (or as required)
5. Touchdown TAIL WHEEL FIRST
6. Landing Roll ELEVATOR UP (Full back)
7. Flaps (after Touchdown) 0°
8. Brake MINIMUM REQUIRED

SHORT FIELD LANDING

1. Airspeed 50 to 55 MPH
2. FLAPS 30°
3. Trim ADJUST (Nose Up)
4. Power As Required
5. Touchdown TAIL WHEEL FIRST
6. Landing Roll ELEVATOR FULL BACK
7. Flaps (after Touchdown) 0°
8. Brake APPLY HEAVILY

CROSS WIND LANDING

1. Airspeed 55 to 60 MPH
2. FLAPS AS DESIRED (Recommended 30°)
3. Power As Required
4. Ailerons-Rudder: On Short Final Use Ailerons to Keep Upwind Wing Low, Rudder to Hold Runway Alignment
5. Touchdown TAIL WHEEL FIRST (Do Not Touch Down In A Slip)
6. Landing Roll: Use Aileron to keep Upwind Wing Down, Rudder and Brakes (If Needed) for Directional Control
7. Flaps (after Touchdown) 0°

AFTER LANDING

1. Wing Flaps UP
2. Carburetor Heat COLD

SECURING AIRPLANE

1. Brakes SET
2. Radios, Electrical OFF
3. Mixture IDLE CUT OFF
4.
5. Ignition Switch OFF
6. Master Switch OFF
7. Secure Aircraft TIE DOWN

REMARKS

BEST GLIDE (SEA LEVEL) SPEED 73 MPH,

BEST COOLING CLIMB 77 MPH (sea level) to 70 MPH (10000 ft)
CLIMB

ALTITUDE	Vx	Vy
sea level	**58 MPH**	**73 MPH**
10000 ft.	**60.5 MPH**	**67.5 MPH**