

BEFORE STARTING ENGINE

Preflight Inspection	Carried Out
Doors	CLOSED
Main Switch	OFF
Parking Brake	SET
Seats, Seatbelts, Shoulder Harness	SECURE
Flight Controls	CHECK
Pitch Trim	CHECK DEFLECTION
Fuel Selector	OPEN
Circuit Breakers	IN
Magneto Switch	OFF
Radio Master	OFF

ENGINE STARTING

Carburator Heat	OFF
Propeller	FULL FORWARD
Mixture	FULL RICH
Main Switch	ON
Fuel Pump	ON
Injection	A FEW TIMES
Pump Warning Light	ON
Fuel Pressure	GREEN
Throttle	1/4 OPEN
Area	CLEAR
Magneto/Start Switch	START

After Starting Engine

Magneto Swith	BOTH
Oil Pressure	GREEN

Failed Starting

Mixture	IDLE-CUT OFF
Throttle	FULL POWER
Magneto/Start Switch	START

AFTER STARTING ENGINE

Alternator Switch	OFF
Generation Warning Light	ON
Voltmeter	YELLOW
Alternator Switch	ON
Generation Warning Light	OFF
Voltmeter	GREEN
Turn and Bank Coordinator	ON
Suction Gage	CHECK
Anti-Collision Light	ON
Alarm Panel Test	POSITIVE
Radio Master	ON
All Radios and Nav aids	ON
Transponder	ON
Fuel Selector	FULLEST TANK
Flaps	RETRACTED

TAXIING

Parking Brake	RELEASE
Brakes	CHECK
Flight Instruments	CHECK
Engine	UP TO 1200 RPM

ENGINE RUN-UP

Parking Brake	SET
Engine Controls Friction	ADJUST
Oil Temperature	GREEN
Oil Pressure	GREEN
Fuel Pressure	GREEN
Mixture	FULL RICH
Carburator Heat	OFF
Fuel Selector	FULLEST TANK
Propeller	FULL FORWARD
Throttle	2000RPM
Propeller Cycle (500RPM DROP)	TWICE
Throttle	2000RPM
Magneto Switch	LEFT>BOTH then RIGHT>BOTH
Maximum RPM Drop Each	175RPM
Maximum difference	50RPM
Carburator Heat	ON
Manifold Pressure	DECREASE
Carburator Temperature	INCREASE
Full Throttle	2700RPM
Throtlle	IDLE
Throtlle	1000RPM

BEFORE TAKE-OFF

Seats, Seatbelts, Shoulder Harness	SET
Doors	ADJUST
Controls	FREE
Pitch-Trim	TAKE-OFF
Flaps	TAKE-OFF
Magneto Switch	BOTH
Propeller	FULL FORWARD
Carburator Heat	OFF
Mixture	FULL RICH
Fuel Selector	FULLEST TANK
Fuel Pump	ON
Oil Temperature	GREEN
Oil Pressure	GREEN
Fuel Pressure	GREEN
Voltmeter	GREEN
Altimeter	SET
Directional Gyro	SET
Horizontal Attitude Gyro	SET
Parking Brake	RELEASE

Cabin Blower	OFF
Landing Lights	
Navigation Lights	
Transponder	ON

TAKE-OFF

Runway Line-up	SET GYRO
<i>Standard Airspeeds</i>	
Rotation	65 KIAS
Initial Climb	67 KIAS
<i>When Safely Airborne</i>	
Brakes	APPLY
Climb Speed	73 KIAS
Flaps	RETRACT
Fuel Pump	OFF
Landing Lights	
Navigation Lights	

CLIMB

Mixture	FULL RICH
Throttle	FULL POWER
Propeller	FULL FORWARD
Optimum Climb Speed	78 KIAS

AFTER LANDING

Fuel Pump	OFF
Flaps	RETRACT
Landing Lights	OFF
Trim	TAKE-OFF
Pitot Heat	OFF
Carburator Heat	OFF

SHUT-DOWN

Parking Brake	SET
Turn and Bank Coordinator	OFF
Anti-Collision Light	OFF
Navigation Lights	OFF
All Radios and Nav aids	OFF
Radio Master	OFF
Throttle	REDUCED
Magnetos Cut-Off Test	OFF then BOTH
Throttle	1000RPM
Mixture	IDLE CUT-OFF

After Engine Stops

Magneto Switch	OFF
Alternator Switch	OFF
Main Switch	OFF
Fuel Selector	OFF
Controls	LOCK

TAXIING

Parking Brake	RELEASE
Brakes	CHECK
Flight Instruments	CHECK
Engine	UP TO 1200 RPM

ENGINE RUN-UP

Parking Brake	SET
Engine Controls Friction	ADJUST
Oil Temperature	GREEN
Oil Pressure	GREEN
Fuel Pressure	GREEN
Mixture	FULL RICH
Carburator Heat	OFF
Fuel Selector	FULLEST TANK
Propeller	FULL FORWARD
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Carburator Heat	ON
Manifold Pressure	DECREASE
Carburator Temperature	INCREASE
Full Throttle	2700RPM
Throttle	IDLE
Throttle	1000RPM

BEFORE TAKE-OFF

Seats, Seatbelts, Shoulder Harness	SET
Doors	ADJUST
Controls	FREE
Pitch-Trim	TAKE-OFF
Flaps	TAKE-OFF
Magneto Switch	BOTH
Propeller	FULL FORWARD
Carburator Heat	OFF
Mixture	FULL RICH
Fuel Selector	FULLEST TANK
Fuel Pump	ON
Oil Temperature	GREEN
Oil Pressure	GREEN
Fuel Pressure	GREEN
Voltmeter	GREEN
Altimeter	SET
Directional Gyro	SET
Horizontal Attitude Gyro	SET

Parking Brake	RELEASE
Cabin Blower	OFF
Landing Lights	
Navigation Lights	
Transponder	ON

TAKE-OFF

Runway Line-up	SET GYRO
<i>Standard Airspeeds</i>	
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Brakes	APPLY
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Fuel Pump	OFF
Landing Lights	
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CLIMB

Mixture	FULL RICH
Throttle	FULL POWER
Propeller	FULL FORWARD
Optimum Climb Speed	78 KIAS

AFTER LANDING

Fuel Pump	OFF
Flaps	RETRACT
Landing Lights	OFF
Trim	TAKE-OFF
Pitot Heat	OFF
Carburator Heat	OFF

SHUT-DOWN

Parking Brake	SET
Turn and Bank Coordinator	OFF
Anti-Collision Light	OFF
Navigation Lights	OFF
All Radios and Nav aids	OFF
Radio Master	OFF
Throttle	REDUCED
Magnetos Cut-Off Test	OFF then BOTH
Throttle	1000RPM
Mixture	IDLE CUT-OFF
<i>After Engine Stops</i>	
Magneto Switch	OFF
Alternator Switch	OFF
Main Switch	OFF
Fuel Selector	OFF

Controls
Checks

LOCK
PUT

BEFORE STARTING ENGINE

Preflight Inspection	CARRIED OUT
Doors	CLOSED
Main Switch	OFF
Parking Brake	SET
Seats, Seatbelts, Shoulder Harness	SECURE
Flight Controls	CHECK
Pitch Trim	CHECK DEFLECTION
Fuel Selector	OPEN
Circuit Breakers	IN
Magneto Switch	OFF
Radio Master	OFF

ENGINE STARTING

Carburetor Heat	OFF
Propeller	FULL FORWARD
Mixture	FULL RICH
Main Switch	ON
Fuel Pump	ON
Injection	A FEW TIMES
Pump Warning Light	ON
Fuel Pressure	GREEN
Throttle	1/4 OPEN
Area	CLEAR
Magneto/Start Switch	START

After Starting Engine

Magneto Switch	BOTH
Oil Pressure	GREEN

Failed Starting

Mixture	IDLE-CUT OFF
Throttle	FULL POWER
Magneto/Start Switch	START

AFTER STARTING ENGINE

Alternator Switch	OFF
Generation Warning Light	ON
Voltmeter	YELLOW
Alternator Switch	ON
Generation Warning Light	OFF
Voltmeter	GREEN
Turn and Bank Coordinator	ON
Suction Gage	CHECK
Anti-Collision Light	ON
Alarm Panel Test	POSITIVE
Radio Master	ON
All Radios and Nav aids	ON
Transponder	STAND-BY
Fuel Selector	FULLEST TANK
Flaps	RETRACTED

TAXIING

Parking Brake	RELEASE
Brakes	CHECK
Flight Instruments	CHECK
Engine	UP TO 1200 RPM

ENGINE RUN-UP

Parking Brake	SET
Engine Controls Friction	ADJUST
Oil Temperature	GREEN
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Fuel Pressure	GREEN
Mixture	FULL RICH
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Fuel Selector	FULLEST TANK
Propeller	FULL FORWARD
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Magneto Switch	LEFT>BOTH then RIGHT>BOTH
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Maximum difference	50 RPM
Carburetor Heat	ON
Manifold Pressure	DECREASE
Carburetor Temperature	INCREASE
Full Throttle	2700RPM
Throttle	IDLE
Throttle	1000RPM

BEFORE TAKE-OFF

Seats, Seatbelts, Shoulder Harness	SET
Doors	ADJUST
Controls	FREE
Pitch-Trim	TAKE-OFF
Flaps	TAKE-OFF
Magneto Switch	BOTH
Propeller	FULL FORWARD
Carburetor Heat	OFF
Mixture	FULL RICH
Fuel Selector	FULLEST TANK
Fuel Pump	ON
Oil Temperature	GREEN
Oil Pressure	GREEN
Fuel Pressure	GREEN
Voltmeter	GREEN
Altimeter	SET
Directional Gyro	SET
Horizontal Attitude Gyro	SET
Parking Brake	RELEASE

Cabin Blower	OFF
Landing Lights	
Navigation Lights	
Transponder	ON

TAKE-OFF

Runway Line-up	SET GYRO
<i>Standard Airspeeds</i>	
Rotation	65 KIAS
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Brakes	APPLY
Climb Speed	73 KIAS
Flaps	RETRACT
Fuel Pump	OFF
Landing Lights	
Navigation Lights	

CLIMB

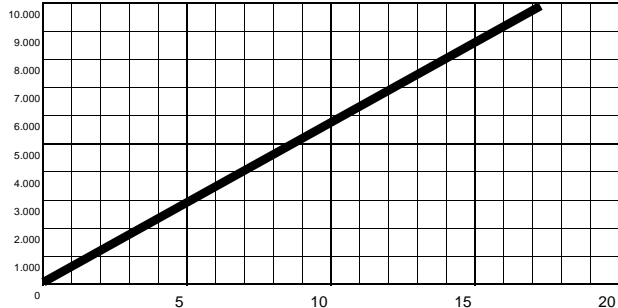
Mixture	FULL RICH
Throttle	FULL POWER
Propeller	FULL FORWARD
Optimum Climb Speed	78 KIAS

AFTER LANDING

Fuel Pump	OFF
Flaps	RETRACT
Landing Lights	OFF
Trim	TAKE-OFF
Pitot Heat	OFF
Carburetor Heat	OFF

SHUT-DOWN

Parking Brake	SET
Turn and Bank Coordinator	OFF
Anti-Collision Light	OFF
Navigation Lights	OFF
All Radios and Nav aids	OFF
Radio Master	OFF
Throttle	REDUCED
Magnetos Cut-Off Test	OFF then BOTH
Throttle	1000RPM
Mixture	IDLE CUT-OFF
<i>After Engine Stops</i>	
Magneto Switch	OFF
Alternator Switch	OFF
Main Switch	OFF
Fuel Selector	OFF
Controls	LOCK

MAXIMUM GLIDESpeed 85 KIAS - Propeller Windmilling
Flaps Up - Zero Wind**TOTAL FUEL : 55.4 U.S.Gallons (210 lt)****USABLE FUEL: 53.8 U.S.Gallons (204 lt)**

V_{NE}	Never Exceed Speed	165
V_{FE}	Max.Flap Extended Speed	95

STALLING SPEEDS

CONFIGURATION	BANK					
	0		30		45	
	KIAS	MPH IAS	KIAS	MPH IAS	KIAS	MPH IAS
FLAPS RETRACTED	60	70	65	75	72	83
FLAPS TAKE-OFF	57	66	62	71	58	78
FLAPS LANDING	53	61	57	66	63	73

