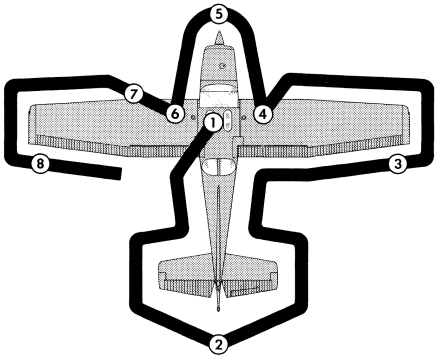
PREFLIGHT INSPECTION



1. PREFLIGHT INSPECTION - CABIN	
DOCUMENTS	CHECKED
CONTROL LOCK	REMOVED
IGNITION SWITCH	OFF
AVIONICS SWITCH	OFF
MASTER SWITCH	ON
FLAPS	DOWN
FUEL QUANTITY	CHECK
MASTER SWTICH	OFF
PREFLIGHT INSPECTION SECTION 4, ref POH	PERFORM

2. PREFLIGHT INSPECTION - EMPENNAGE	
RUDDER GUST LOCK	REMOVE
TAIL TIE-DOWN	DISCONNECT
CONTROL SURFACES	CHECK freedom of movement and security.

3. PREFLIGHT INSPECTION – RIGHT WING TRAILING EDGE	
AILERON	CHECK freedom of movement and security.

4. PREFLIGHT INSPECTION – RIGHT WING	
WING TIE-DOWN	DISCONNECT
MAIN WHEEL TIRE	CHECK for proper inflation.
Before first flight of the day and after each refueling, use sampler cup and drain small quantity of fuel from fuel tank sump quick-drain valve to check for water, sediment, and proper fuel grade.	
FUEL QUANTITY	CHECK VISUALLY
FUEL FILLER CAP	SECURE

5. PREFLIGHT INSPECTION – NOSE	
ENGINE OIL LEVEL	CHECK, do not operate with less than four quarts. Fill to six quarts for extended flight.
Before first flight of the day and after each refueling, pull out strainer drain knob for about four seconds to clear fuel strainer of possible water and sediment. Check strainer drain closed. If water is observed, the fuel system may contain additional water, and further draining of the system at the strainer, fuel tank sumps, and fuel selector valve drain plug will be necessary.	
PROPELLER AND SPINNER	CHECK for nicks and security.
LANDING LIGHT	CHECK for condition and cleanliness
CARBURETOR AIR FILTER	CHECK for restrictions by dust or other foreign matter.
NOSE WHEEL STRUT AND TIRE	CHECK for proper inflation.
NOSE TIE-DOWN	DISCONNECT
STATIC SOURCE OPENING	CHECK for stoppage
COWL PLUGS	REMOVE

6. PREFLIGHT INSPECTION – LEFT WING	
MAIN WHEEL TIRE	CHECK for proper inflation
Before first flight of the day and after each refueling, use sampler cup and drain small quantity of fuel from fuel tank sump quick-drain valve to check for water, sediment, and proper fuel grade.	
FUEL QUANTITY	CHECK VISUALLY
FUEL FILLER CAP	SECURE

7. PREFLIGHT INSPECTION – LEFT WING	
PITOT TUBE COVER	REMOVE and check opening for stoppage
FUEL TANK VENT OPENING	CHECK for stoppage
STALL WARNING OPENING	CHECK for stoppage. To check the system, place a clean handkerchief over the vent opening and apply suction; a sound from the warning horn will confirm system operation
WING TIE-DOWN	DISCONNECT

8. PREFLIGHT INSPECTION – LEFT WING	
AILERON	CHECK for freedom of movement and security

STARTING ENGINE (APRON)	
PREFLIGHT INSPECTION	COMPLETE
SEATS, BELTS, HARNESSES	ADJUST, LOCK
FUEL SELECTOR VALVE	BOTH
BRAKES	TEST and SET
ALL ELECTRICAL EQUIPMENT	OFF
CIRCUIT BREAKERS	ALL IN
MIXTURE	RICH
CARBURETOR HEAT	COLD
MASTER SWITCH	ON
BEACON LIGHT	ON
PRIME (2 to 6 strokes; none if warm)	AS REQUIRED
THROTTLE	OPEN 1/8”
PROPELLER AREA	CLEAR
IGNITION SWITCH	START
OIL PRESSURE	CHECK
AVIONICS	ON
RADIOS	ON
TRANSPONDER	ON
WING FLAPS	UP
MIXTURE	LEAN

BEFORE TAXI	
ATIS	COPIED
CLEARANCE	COPIED
QNH, SQUAK, FLIGHT PLAN	SET

BEFORE TAKEOFF (HOLD POINT)	
PARKING BRAKE	SET
DOORS, WINDOWS	LOCKED
FLIGHT CONTROLS	FREE, CORRECT
FLIGHT INSTRUMENTS	SET
FUEL SELECTOR VALVE	BOTH
MIXTURE	RICH
TRIM	TAKE-OFF
THROTTLE 1700 RPM	SET
MAGNETOS (drop less than 125 RPM or 50 RPM differential)	CHECK
CARBURETOR HEAT	CHECK
ENGINE INSTRUMENTS	CHECK
AMMETER	CHECK
IDLE	CHECK
THROTTLE 1000 RPM	SET
RADIOS	SET
TRANSPONDER	ALT
LIGHTS (NAV, BCN, LDG)	ON

TAKEOFF (NORMAL)	
WING FLAPS	UP
CARBURETOR HEAT	COLD
THROTTLE	FULL OPEN
ROTATE SPEED	55 KIAS
CLIMB SPEED	70-80 KIAS
BEST RATE OF CLIMB	73 KIAS

TAKEOFF (SHORT FIELD)	
WING FLAPS	UP
CARBURETOR HEAT	COLD
BRAKES	APPLY
THROTTLE	FULL OPEN
BRAKES	RELEASE
ROTATE SPEED	55 KIAS
CLIMB SPEED	59 KIAS

ENROUTE CLIMB	
SPEED	70-85 KNOTS
THROTTLE	FULL OPEN
MIXTURE	RICH

CRUISE	
POWER	2200-2700 RPM
TRIM	ADJUST
MIXTURE	LEAN

DESCENT	
MIXTURE (full rich for idle power)	ADJUST
POWER	AS DESIRED
CARBURETOR HEAT	AS REQUIRED

BEFORE LANDING	
SEATS, BELTS, HARNESSES	ADJUST
FUEL SELECTOR VALVE	BOTH
MIXTURE	RICH
CARBURETOR HEAT	ON
LANDING LIGHT	ON

LANDING (NORMAL)	
APPROACH SPEED (FLAPS UP)	60-70 KIAS
WING FLAPS (BELOW 85 KIAS)	AS DESIRED
FINAL APPROACH SPEED (FULL FLAPS)	55-65 KIAS
TOUCHDOWN	MAIN FIRST, LOWER NOSE GENTLY
BRAKING	MINIMUM

LANDING (SHORT FIELD)	
APPROACH SPEED (FLAPS UP)	60-70 KIAS
WING FLAPS (BELOW 85 KIAS)	FULL DOWN, 40°
FINAL APPROACH SPEED (FULL FLAPS)	60 KIAS (UNTIL FLARE)
POWER	IDLE
TOUCHDOWN	MAIN FIRST
BRAKING	APPLY HEAVILY

BALKED LANDING	
THROTTLE	FULL
CARBURETOR HEAT	COLD
WING FLAPS (IMMEDIATELLY)	20°
CLIMB SPEED	55 KIAS
WING FLAPS (UNTIL OBSTACLES ARE CLEARED)	10°
WING FLAPS (SAFE ALTITUDE, SPEED 60 KIAS)	RETRACT
CLIMB SPEED	70-80 KIAS

AFTER LANDING	
WING FLAPS	UP
CARBURETOR HEAT	COLD
LIGHTS (STROBES, LANDING)	OFF
TRIM	TAKEOFF

SECURE AIRCRAFT	
PARKING BRAKE	ON
RADIOS, TRANSPONDER	OFF
AVIONICS SWITCH	OFF
MIXTURE	CUT OFF
MASTER SWITCH	OFF
BEAKON LIGHT	OFF
CONTROL LOCK	INSTALL
WINGS, TAIL	TIE-DOWN
PITOT COVER	INSTALL
COWL PLUGS	INSTALL

SPEEDS FOR NORMAL OPERATION	
MAXIMUM GLIDE	65 KIAS
TAKEOFF, FLAPS UP:	
ROTATE	55 KIAS
NORMAL CLIMB OUT	70-80 KIAS
SHORT FIELD TAKEOFF, FLAPS UP, SPEED AT 50 FEET	59 KIAS
ENROUTE CLIMB, FLAPS UP:	
NORMAL, SEA LEVEL	75-85 KIAS
NORMAL, 10,000 FT	70-80 KIAS
Vy BEST RATE OF CLIMB, SEA LEVEL	73 KIAS
Vy BEST RATE OF CLIMB, 10,000 FT	68 KIAS
Vx BEST ANGLE OF CLIMB, SEA LEVEL	59 KIAS
Vx BEST ANGLE OF CLIMB, 10,000 FT	61 KIAS
LANDING APPROACH:	
NORMAL APPROACH, FLAPS UP	60-70 KIAS
NORMAL APPROACH, FLAPS 40°	55-65 KIAS
SHORT FIELD APPROACH, FLAPS 40°	60 KIAS
BALKED LANDING:	
MAXIMUM POWER, FLAPS 20°	55 KIAS
MAXIMUM RECOMMENDED TURBULENT AIR PENETRATION SPEED:	
2300 LBS / 1043 KG	97 KIAS
1950 LBS / 885 KG	89 KIAS
1600 LBS / 725 KG	80 KIAS
MAXIMUM DEMONSTRATED CROSSWIND VELOCITY:	
TAKEOFF OR LANDING	15 KNOTS
PRECAUTIONARY LANDING WITH ENGINE POWER	**60 KIAS**
LANDING WITHOUT ENGINE POWER / ENGINE FAILURE AFTER TAKEOFF:	
WING FLAPS UP	65 KIAS
WING FLAPS DOWN	60 KIAS

STALL SPEEDS – 2300 LBS / 1043KG				
FLAPS	ANGLE OF BANK			
	0°	30°	45°	60°
MOST REARWARD CENTER OF GRAVITY				
UP	42	45	50	59
10°	38	40	45	54
40°	36	38	43	51
MOST FORWARD CENTER OF GRAVITY				
UP	47	51	56	66
10°	44	47	52	62
40°	41	44	49	58