

Piper PA-28 181 Archer II

PREFLIGHT INSPECTION

CABIN

Pilot Operating Handbook and Documents	AVAILABLE
Magneto/Ignition Switch	OFF
Avionics	OFF
Electrical Switches	OFF
MASTER Switch	ON
Fuel Quantity Gauges	CHECK
Anit Collision Light	CHECK
MASTER Switch	OFF
Flaps	DOWN

RIGHT WING

Flap	Linkages intact/movement
Control Surfaces	Linkages intact/movement
Wing Tip and Lights	CHECK
Leading Edge and Wing Surface	CHECK
Tie Down	REMOVE
Fuel Tank	CHECK VISUALLY
Fuel Cap	SECURE
Fuel Vent	CLEAR
Fuel Drains (2)	CHECK SEDIMENT/COLOR
Main Gear Strut	(4.5 " strut exposed)
Main Tire	INFLATION (24 psi)
Fresh Air Inlet	CHECK CLEAR

RH ENGINE COWL

Oil	CHECK 6-8 QTS
Dipstick	PROPERLY SEATED
General Condition	No loose wires/damage
Engine Cowl Cover	SECURE - LATCH CORRECT

PA-28-181 Archer II

NOSE

Propeller and Spinner	CHECK
Air Inlets	CLEAR
Alternator Belt	CHECK TENSION
Landing Light	CHECK
Nose Chock	REMOVE
Nose Gear Strut	(3.25" strut exposed)
Nose Wheel	CHECK INFLATION (30 psi)
LH Engine Cowl Cover	OPEN, CHECK, SECURE
Fuel Drain/Strainer	CHECK SEDIMENT/COLOR

LEFT WING

Fuel Drains(2)	CHECK SEDIMENT/COLOR
Main Gear Strut	(4.5" strut exposed)
Main Tire	INFLATION (24 psi)
Fuel Tank	CHECK VISUALLY
Fuel Cap	SECURE
Fuel Vent	CLEAR
Tie Down	REMOVE
Pitot Tube	PITOT AND STATIC PORTS CLEAR
Stall Warning Sensor	CHECK OPERATION
Leading Edge and Wing Surface	CHECK
Wing Tip and Lights	CHECK
Control Surfaces	Linkages intact/movement
Flap	Linkages intact/movement

FUSELAGE/TAIL

Fuselage Left	CHECK
Stabilator	CHECK LINKAGES/MOVEMENT
Rudder	CHECK LINKAGES
Rotating Beacon	INTACT
VOR Antennas	INTACT
Tie Down	REMOVE
Fresh Air Inlet	CHECK CLEAR
Fuselage Right	CHECK
Baggage Door	CLOSE, SECURE

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START

Preflight Inspection	Complete
Passenger Briefing	SEAT BELT USE/COMPLETE
Brakes	TEST AND SET
Fuel Selector	DESIRED TANK
Avionics	OFF
Circuit Breakers	CHECK IN
Prime	2-4 COLD
Throttle	1/8" -1/4" OPEN
MASTER Switch	ON
Electric Fuel Pump	ON, WAIT FOR PRESSURE
Mixture	FULL AHEAD (RICH)
Propeller	LOOK / ANNOUNCE "CLEAR"
Starter	PRESS IN AND START TO ENGAGE
Throttle	800 - 1200 RPM
Oil Pressure	CHECK IN GREEN
Ammeter	SHOWING LOAD
Anti-Collision Light	ON
NAV Lights	2 PLACES AS REQUIRED (NIGHT ON)
Avionics	ON & TUNED
Transponder	STBY or ALT/1200
Brakes	RELEASE

BEFORE TAKEOFF

Parking Brake	SET
Seat Locked, Seat Belts	SECURE
Controls	CORRECT/FREE
Doors	LATCH TOP AND BOTTOM
Flight Instruments	ART HZN, DG, ALTIMETER, ANNUNCTR CHECK
Fuel Selector	PROPER TANK
Primer	LOCK
Electric Fuel Pump	ON
Trim Tab	SET 1/8" AFT OF T.O. MARK
Throttle	2000 RPM
MAGNETOS	175 DROP / 50 DIFF
Carburetor Heat	CHECK
Suction	5 +/- 0.1" HG
Oil Temp/Pressure	PRESS IN GREEN ARC
Electric Fuel Pump	CYCLE - CHECK PRESSURE DROP
Throttle	1200 RPM
Flaps	SET FOR TAKEOFF
Transponder	Move to 1200/ALT
WIND CHECK	PROPER CONTROL POSITION
START/STOP DISTANCE	NOTE
SAFE ALTITUDE	500+300 NOTE
Radio/Avionics	Set AI Bug and CDI , TRANSMIT INTENTIONS
Brakes	RELEASE, MARK TIME OFF

AFTER TAKEOFF

Electric Fuel Pump	OFF
Fuel Selector	PROPER TANK
Electric Fuel Pump	ON
Carb Heat	Cycle and Set
Mixture	SET
Flaps	SET - 102 KIAS (117 MPH) MAX.
Approach Speed	Trim to 70 KIAS (80 MPH)

BEFORE LANDING

PA28-181 Speeds		Indicated Airspeed	
		Knots	MPH
Vr	Rotation Speed	52	60
Vx	Best Angle of Climb (25 flps)	64	74
Vy	Best Rate of Climb	76	87
Vs	Stalling Speed (0 Bank)	56	64
Vso	Stalling Speed (Full Flaps)	50	58
Vg	Best Glide Speed	76	87
Vne	Velocity Never Exceed	154	177
Vno	Max Structural Cruising Speed	125	144
Vfe	Flap Extension Speed	102	117
Va	Max Design Manuevering	113	130
Pattern	No Flaps	70	81
Pattern	25 deg Flaps (2 Notches)	64	74
VClimb	Best Enroute Climb	87	100
Max Crosswind	Component	17	20

SOFT / SHORT FIELD / OBSTACLE CLEARANCE

Flaps 25 degrees (2nd NOTCH)
(SHORT FIELD)
 FULL POWER BEFORE BRAKE RELEASE
 ACCELERATE TO 52 KIAS (66 MPH) AND ROTATE
 Continue climbing while accelerating to Vy 76 KIAS (87 MPH).
 Flaps **RETRACT SLOWLY**
(SOFT FIELD)
 Lift nose gear - lift off at lowest possible airspeed
 Accelerate just above ground to 52 KIAS (66 MPH) to climb past obstacle
 Continue climbing while accelerating to Vy 76 KIAS (87 MPH).
 Flaps **RETRACT SLOWLY**

Best Power 75F ROP(3k/9k STP)
55% - 2240/2360 RPM - 7.8 GPH
65% - 2390/2530 RPM - 9.0 GPH
75% - 2540/NA RPM - 10.5 GPH

Takeoff Landing	Roll	50' Clear
	1065	1760
	595	1115

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