



PIPER ARCHER II

PA-28-181

v25.1 // POH VB760 & VB790

PREFLIGHT INSPECTION

INTERIOR INSPECTION

1. Hobbs/Tach TimesRECORDED
2. Documents (AROW)CHECKED
3. Circuit BreakersCHECKED IN
4. Carb HeatOFF
5. All Electrical SwitchesOFF
6. Throttle/Mixture ...IDLE/CUTOFF
7. IgnitionOFF/KEY ON DASH
8. Master SwitchON
 - a. Fuel QuantityCHECKED
 - b. Lights/Pitot HtCHECKED
 - c. Stall Warning.....CHECKED
9. Master Switch.....OFF
10. Fuel SelectorLOWEST TANK
11. Fire Ext/Safety EquipAS REQ
12. Empty SeatsITEMS STOWED
13. WindscreenCHECKED
14. FlapsEXTENDED/DOWN

EXTERIOR INSPECTION

1. Right Wing
 - a. Flaps/AileronCHECKED
 - b. Fuel QuantityVERIFIED
 - c. Fuel SumpDRAINED
 - d. Fuel VentCHECKED
 - e. Gear/BrakesCHECKED
 - f. Mount Strut (4.5") CHECKED
 - g. Tire Pres (24 PSI) ...CHECKED
 - h. Chocks/Tie Downs .REMOVE
2. Nose / Engine
 - a. Oil (6-8 QT)CHECKED
 - b. Engine CowlingSECURED
 - c. Prop / SpinnerCHECKED
 - d. Alt Belt/Flywheel ..CHECKED
 - e. Nose Strut (3.25") .CHECKED

- f. Tire Pres (24 PSI) ...CHECKED
- g. ChocksREMOVE
- h. Air InletsCLEAR
- i. Brake FluidCHECKED
- j. Engine CowlingSECURED
- k. Fuel SumpDRAINED
3. Left WingPERFORM R WING
 - a. Pitot MastCHECKED
4. L Fuselage/Antennas ...CHECKED
5. EmpennageCHECKED
6. Aft Tie DownREMOVE
7. R Fuselage/Antennas ...CHECKED
8. UnderbellyCHECKED
9. Baggage CompLOCKED

BEFORE STARTING ENGINE

1. Pax Brief (S.A.F.E.T.Y.)COMPLETE
2. FlapsRETRACTED/UP
3. Seats/BeltsLOCKED/SECURED
4. Anti Collision / Beacon LtON
5. BrakesHOLD

STARTING ENGINE

1. Aircraft KeyINSERTED
2. COLD START: Prime2 STROKES
3. MixtureFULL RICH
4. Master SwitchON
5. Fuel PumpON/CHK PRESSURE
6. ThrottleOPEN 1/4"
7. Propeller AreaCLEAR
8. Ignition SwitchSTART
9. Throttle1000 RPM
10. Oil PressureCHECK
11. MixtureADJUST
12. Fuel PumpOFF

BEFORE TAXI

1. Radios/AvionicsON/SET
2. TransponderSET/ALT MODE
3. Flight InstrumentsCHECKED
4. Nav/Taxi LightsON
5. Brakes & Pkg BrakeRELEASED

TAXI

1. BrakesCHECKED
2. Flight InstrumentsCHECKED

RUN-UP

1. Flight Controls ...FREE / CORRECT
2. Fuel SelectorSWITCH TANK
3. PrimerIN AND LOCKED
4. MixtureFULL RICH
5. Throttle2000 RPM
 - a. Mags (175↓/50 Δ) ...CHECKED
 - b. Carb HeatON / CHECKED
 - c. AmmeterCHECKED
 - d. Vacuum (4.9-5.1")AS REQ
 - e. Eng Instruments ..GREEN ARC
 - f. AnnunciatorsCHECKED
6. ThrottleCHK IDLE / 1000 RPM
7. Carb HeatOFF / CHECKED
8. Throttle Friction LockSET
9. MixtureADJUST
10. Radios/Avionics/NavSET
11. Departure BriefCOMPLETED

BEFORE TAKEOFF (Holding Short)

1. Door / WindowSECURED
2. TransponderSET/ALT MODE
3. Carb HeatOFF
4. Landing Lt / Pitot Ht .ON/AS REQ
5. Fuel PumpON
6. MixtureFULL RICH
7. PrimerIN / LOCKED
8. Flaps ...0 NORM // 25 SHORT/SHORT
9. Trim (Rudder/Elev)SET TWICE
10. InstrumentsCHECKED

TAKEOFF

1. ThrottleFULL (3 SECONDS)
2. Engine InstrumentsCHECKED
- $V_R / V_X / V_Y$ 60 / 74 / 87 MPH
- $V_R / V_X / V_Y$ 52 / 64 / 76 KNOTS

CLIMB (>500' AGL)

1. FlapsUP
2. Fuel PumpOFF / CHK PRES
3. InstrumentsCHECKED

CRUISE

1. Pwr/Mixture ...SET (per AFM/POH)
2. Engine InstrumentsCHECKED
3. Landing LightAS REQ

PRE-MANEUVER

1. Clearing TurnsCOMPLETED
2. MixtureFULL RICH
3. Fuel PumpON
4. Fuel SelectorPROPER TANK
5. Landing LightON

DESCENT

1. Fuel SelectorPROPER TANK
2. Power/MixtureAS REQ
3. Destination Info / WX ..RECEIVED
4. Approach Briefing ...COMPLETED
5. InstrumentsCHECKED

BEFORE LANDING

1. Fuel PumpON
2. PrimerIN / LOCKED
3. MixtureFULL RICH
4. Landing LightON
5. Seats/BeltsLOCKED/SECURED

AFTER LANDING (Clear of Runway)

1. FlapsRETRACTED/UP
2. Fuel PumpOFF
3. Landing LightAS REQ
4. Pitot HeatOFF
5. Carb HeatOFF
6. MixtureADJUST

ENGINE SHUTDOWN

1. Radios/AvionicsOFF
2. Throttle1200 (10sec) / 1000
3. MixtureIDLE CUTOFF
4. IgnitionOFF / KEY ON DASH
5. Master SwitchOFF

SECURING

1. Hobbs/Tach TimesRECORDED
2. CabinCLEAN
3. Cover/Cowl PlugsINSTALLED
4. Chocks/Tie DownsINSTALLED
5. Postflight InspCOMPLETED
6. DiscrepanciesRECORDED

This checklist constitutes partial information
and is not a substitute for the AFM/POH

ENGINE FAILURES

ENGINE FAILURE - TAKEOFF ROLL

1. ThrottleIDLE
2. BrakesAPPLY
3. MixtureIDLE CUTOFF

ENGINE FAILURE AFTER TAKEOFF

1. Airspeed (V_G) ...87 MPH / 76 KTS
2. Pwr-Off / Forced Ldg ...EXECUTE

IF TIME & ALTITUDE ALLOW

3. Fuel SelectorPROPER TANK
4. Fuel PumpON
5. MixtureFULL RICH
6. Carb HeatON
7. IgnitionBOTH/START
8. Pwr-Off / Forced Ldg ...EXECUTE

ENGINE FAILURE DURING FLIGHT

1. Airspeed (V_G) ...87 MPH / 76 KTS
2. Landing Area .SELECTED/DIRECT
3. Fuel SelectorPROPER TANK
4. Fuel Pump.....ON
5. MixtureFULL RICH
6. Carb HeatON
7. Eng InstrumentsCHECKED
8. IgnitionBOTH/START
9. Pwr-Off / Forced Ldg.....EXECUTE

POWER-OFF / FORCED LANDING

1. Airspeed (V_G) ...87 MPH / 76 KTS
2. Landing Area .SELECTED/DIRECT

WHEN COMMITTED TO LANDING

3. MixtureIDLE CUTOFF
4. Master SwitchOFF
5. Mags (Ignition)OFF
6. Fuel Selector ValveOFF
7. SeatbeltsTIGHT
8. FlapsAS REQ'D

ABNORMAL OIL PRES / TEMP

1. PowerMINIMUM REQUIRED
2. Eng InstrumentsMONITOR
3. Pwr-Off / Forced LdgPREPARE

LOSS OF FUEL PRESSURE

1. Fuel PumpON
2. Fuel SelectorFULLEST TANK

FIRES

ENGINE FIRE DURING START

1. StarterCONTINUE TO CRANK
2. MixtureIDLE CUTOFF
3. ThrottleOPEN
4. Fuel PumpOFF
5. Fuel SelectorOFF
6. EGRESS AIRCRAFT

ENGINE FIRE DURING FLIGHT

1. Fuel Selector ValveOFF
2. ThrottleIDLE
3. MixtureIDLE CUTOFF
4. Fuel PumpOFF
5. Heater/DefrosterOFF
6. Pwr-Off / Forced LdgPREPARE

ELECTRICAL FIRE / SMOKE IN CABIN

1. Master SwitchOFF
2. VentsOPEN
3. Cabin HeatOFF
4. All Electrical EquipOFF

IF FIRE APPEARS OUT & PWR REQ'D

5. Master.....ON
6. Circuit Breakers.....CHECKED
7. Critical EquipON (1 at a time)

ELECTRICAL

ALTERNATOR FAIL

1. AmmeterTEST / APPLY LOAD
2. Electrical LoadREDUCE
3. Alt Circuit BreakerCHECK
4. Alt SwitchRECYCLE 1 SEC

ANNUNCIATOR ON, OR ZERO AMPS

5. Alternator SwitchOFF
6. Non-Essential Elec EquipOFF
7. FlightTERMINATE

SPIN RECOVERY

1. Power (Throttle)IDLE
2. AileronsNEUTRAL

WHILE SIMULTANEOUSLY

3. Rudder .FULL OPPOSITE OF SPIN
4. ElevatorFWD OF NEUTRAL

WHEN ROTATION STOPS

5. RudderNEUTRAL
6. ElevatorAS REQ'D FOR LVL FLT

INADVERTENT ICING ENCOUNTER

1. Pitot HeatON
2. Cabin Heat / DefrostMAX
3. Icing ConditionsEXIT
4. Power/Carb Heat ..INCREASE/ON
5. MixtureADJUST
6. No-Flap LandingEXECUTE

LOST COMMS (NORDO)

1. FlightFIND/MAINTAIN VMC
2. Radio(s)CHECK VOLUME
3. Headset(s)CHECK
4. Circuit BreakersCHECK
5. Alternator Switch.....RECYCLE

ENGINE ROUGHNESS

1. Carb HeatON
2. MixtureADJUST
3. Fuel PumpON
4. Fuel SelectorSWITCH TANKS
5. Eng InstrumentsMONITOR
6. MagnetosCHECK L/R/BOTH

CLEANING FOULED SPARK PLUGS

1. Throttle2300 RPM
2. MixtureLEAN PK RPM (60 SEC)
3. MixtureFULL RICH
4. MagnetosCHECK L/R/BOTH

OPEN DOOR

1. AirspeedBELOW 100 MPH
2. Cabin VentsCLOSED
3. Storm WindowOPEN
4. If Latches OpenLATCH

PERFORMANCE DATA

V SPEEDS		MPH	KNOTS
Stall, Flaps DOWN	V _{SO}	61	53
Stall, Flaps UP	V _{S1}	68	59
Rotation	V _R	60	52
Best Angle	V _X	74	64
Best Rate	V _Y	87	76
Best Glide	V _G	87	76
Max Flap Extend	V _{FE}	115	100
Maneuvering	V _A	124	107
Maneuvering*	V _A	128	111
Max Structural Cruise	V _{NO}	140	122
Never Exceed	V _{NE}	171	149
Max Demo Crosswind		17 KNOTS	

Source: POH VB760 (S/N 28-76x) / VB790 (S/N 28-78x)
& TCDS 2A13_R63

*S/N 28-78x and up

PA28-181 SPECIFICATIONS

SPECIFICATION		
WEIGHTS	MAX T/O WEIGHT (NORM)	2550#
	MAX T/O WEIGHT (UTIL)	2130#
	MAX BAGGAGE	200#
	MAX USEFUL LOAD	1160#
FUEL AND OIL	USEABLE / TOTAL	48 / 50 GAL
	FUEL TYPE	100LL
	75% BEST PWR	10.5 GAL/HR
	65% BEST PWR	9.0 GAL/HR
AIRCRAFT	55% BEST PWR	7.8 GAL/HR
	OIL CAPACITY (QT)	8 (6 USEABLE)
	TIRE PSI (NOSE/MAIN)	24 / 24
	BATTERY	12 VDC / 25 Ah
AIRCRAFT	ALTERNATOR	14 VDC / 60 Ah

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