

United Flight Systems



N21489 – Archer II - PA-28-181

NORMAL OPERATIONS

BEFORE START ENGINE

HOBBS.....RECORD
 PREFLIGHT INSPECTION..... COMPLETE
 A.R.R.O.W. CHECK
 AIRPORT DIAGRAM.....AVAILABLE
 PASSENGER BRIEF S.A.F.E.T.Y.

Seat & Seat Belts, Air, Fire, Exit/Emergencies,
 Traffic & Talking, Your Questions?

SEATS & SEAT BELTS LOCKED / FASTENED
 MASTER (bat & alt) OFF
 AVIONICS MASTER OFF
 FUEL SELECTOR..... LEFT or RIGHT
 FRESH AIR FAN..... OFF
 CIRCUIT BREAKERS..... CHECK
 CARB HEAT..... OFF
 THROTTLECLOSED
 MASTER (bat & alt) ON
 BEACON ON
 NAV LIGHTS..... AS REQ

ENGINE START

BRAKES.....SET / HOLD
 MIXTURE RICH / FULL FWD
 COLD ENGINE..... (max 3 pumps) PRIME AS REQ
 THROTTLE CLOSED / 1/2 IN
 FUEL PUMPON / CHECK PRESSURE
 BRAKES..... HOLD
 PROP AREA..... CLEAR
 STARTER..... (8-10 seconds max) ENGAGE

****WHEN ENGINE STARTS****

THROTTLE1000 RPM
 OIL PRESSURE CHECK
 FUEL PUMP OFF
 FUEL FLOW..... CHECK
 MIXTURE LEAN

AFTER START

AVIONICS MASTER ON
 FRESH AIR FAN / HEATER / DEFROST AS REQ
 HEADSETS ON / CHECK
 ALTERNATOR OUTPUTCHECK
 GPS / CDI.....CHECK
 GPS DATABASE CURRENCY CHECK / ENT
 COMS SET / ATIS
 ALTIMETERSSET
 CLEARANCE (If IFR).....OBTAIN
 GPS.....ENTER WPT/FPL/APR AS REQ
 NAVS SET / COURSE
 FLIGHT INSTRUMENTSCHECK / SET
 TRANSPONDER SET CODE / ALT MODE
 FLAPSCHECK / UP

TAXI

Do Not Ride Brakes

AIRPORT DIAGRAM.....AVAILABLE
 TAXI CLEARANCE..... OBTAIN / BRIEF
 TAXI AREA (left & right) CLEAR
 BRAKES..... RELEASE / CHECK
 FLIGHT INSTRUMENTSCHECK

Check in turns.

STERILE COCKPIT.....NO NONESSENTIAL TALKING

****Pre-Takeoff Emergency Brief****

Engine Failure on runway
 THROTTLE..... IDLE
 BRAKES APPLY
 STOP STRAIGHT AHEAD
 Engine Failure After Rotation
 THROTTLE..... IDLE
 PITCH FOR BEST GLIDE 76
 CONTINUE STRAIGHT AHEAD
 At or above 1000ft AGL – Turn around point
 TURN TO AIRPORT

RUN UP

BRAKES SET / HOLD
 FUEL PUMP ON
 FUEL GAUGES / QTY.....CHECK
 FUEL SELECTOR.....SWITCH TANKS

CONFIRM BOTH TANKS ARE WORKING

MIXTURE FULL FWD
 THROTTLE2000 RPM
 MAGNETOS..... (175 max drop, mas diff. 50) CHECK
 OIL TEMPERATURE & PRESSURE.....CHECK
 VACUUM..... 5.0 Hg +/- 0.1
 ANNUNCIATOR PANEL.....TEST
 AMPSCHECK
 FUEL PUMP OFF
 FUEL PRESSURE.....CHECK
 CARB HEAT..... ON
 THROTTLE IDLE
 CARB HEAT..... OFF
 THROTTLE1000 RPM
 MIXTURE LEAN
 FLIGHT CONTROLS FREE / CORRECT
 TRIMSET
 BRAKESRELEASE

BEFORE TAKEOFF

****TAKE OFF / EMERGENCY PLAN******BRIEF**
 FUEL SELECTOR..... (FULLEST TANK) PROPER TANK
 FLIGHT INSTRUMENTSCHECK
 ENGINE GAUGESCHECK
 PRIMER LOCKED
 MASTER SWITCH.....CONFIRM ON
 FUEL PUMP ON / CHECK PRESSURE

START 30 MINUTE TIMER

CARB HEAT..... OFF
 FLAPSVERIFY SET
 SEATBACKS SECURE
 SEATS & SEAT BELTS LOCKED / FASTENED

Final items when #1 for takeoff

L Flow – Left to Right

DOOR CLOSE / LOCKED
 LANDING LIGHT ON
 STROBE AS REQ
 TRANSPONDER VERIFY ALT / SET
 MIXTURESET

TAKE OFF

THROTTLE..... FULL
 ROTATE 52-65 KTS
 YOKE..... APPLY BACK PRESSURE / ESTABLISH CLIMB
 CLIMB..... 70 - 80 KTS
 V_X - 64 KTS / V_Y - 76 KTS

AFTER TAKEOFF

Above 1000 AGL

CRUISE CLIMB 87 KTS
 THROTTLE..... FULL
 FLAPS UP CHECK
 MIXTURE LEAN ABOVE 3000' MSL

CRUISE

THROTTLE..... SET
 2300-2400 RPM LOCAL / 75% BHP FOR XC
 ENGINE / SYSTEM INSTRUMENTS CHECK
 FUEL SELECTOR PROPER TANK
 FUEL PUMP OFF / CHECK PRESSURE
 LANDING LIGHT OFF
 MIXTURE LEAN

V Speeds	KDWH Frequencies
V _R60	Ground..... 121.8
V _Y76	Tower..... 118.4
V _X64	Unicom 122.95
V _{FE}102	West Practice.. 123.5
V _A 89-113	ATIS..... 128.375
V _{NO}125	Hou App NW ... 119.7
V _{NE}154	Hou App SW.... 123.8
V _G76	Max Demo Xwind 17

DESCENT

For XC use

ATIS / AWOSCHECK
 APPROACH BRIEFINGCOMPLETE
 ALTIMETER.....SET
 CARB HEAT AS REQ
 THROTTLE AS REQ
 MIXTURE SLIGHTLY ENRICH

APPROACH (15NM FROM AIRPORT)

ATIS / AWOSCHECK
 APPROACH BRIEFINGCOMPLETE
 ALTIMETER.....CHECK
 FUEL PUMP ON
 FUEL SELECTORPROPER TANK
 MIXTURE SLIGHTLY ENRICH
 PARKING BRAKE OFF
 LANDING LIGHT..... ON

When direct to IAF or Vectored

FLIGHT & NAV Instruments..... SET / IDENT
 CDI KEY VLOC / GPS
 AIRSPEED 90 KTS

BEFORE LANDING CHECKLIST

G.U.M.P.S.

FUEL SELECTORPROPER TANK
 MIXTURESET FOR ALT / FULL RICH
 FUEL PUMP ON
 CARB HEAT ON
 POWER..... AS REQ
 SEAT BELTS / SWITCHES.....CHECK
 FLAPS (V_{FE} 102) AS REQ

GO AROUND / MISSED APPROACH

"Cram, Climb, Clean, Click, Call"

THROTTLE FULL FWD
 CARB HEAT OFF
 FLAPS 25 IMMEDIATELY
 PITCH 64 KTS / PITCH FOR CLIMB
 FLAPS 10 POS RATE, OBST CLEARED, 70 KTS
 FLAPS UP AFTER REACHING SAFE ALT 76 KTS
 Fly assigned or published heading & altitude

AFTER LANDING

When aircraft is stopped

GROUND OR ASSIGNED FREQ.....CHECK
 FLAPS UP
 CARB HEAT OFF
 FUEL PUMP OFF
 MIXTURE LEAN
 TAXI CLEARANCE..... OBTAIN / BRIEF

SHUTDOWN

CALL FOR FUEL @ KDWH 122.95
 TRANSPONDER 1200 / VFR
 AVIONICS MASTER OFF
 THROTTLE 1000 RPM
 MIXTURECUTOFF

When Propeller stops

MAGNETOS OFF
 MASTER SWITCH..... OFF
 ELECTRICAL SWITCHES..... OFF
 HOBBS / TACH..... RECORD

Secure aircraft, tiedown and walk around.

Note and record squawks

Revised 02-09-2020

This checklist is for reference. It is not intended to replace the POH / AFM.

United Flight Systems



PIPER ARCHER II - PREFLIGHT

CABIN

Walk up to aircraftINSPECT FOR DAMAGE
Oil Level..... CHECK
Pitot Tube Cover REMOVE
HOBBS RECORD
POHIN-AIRCRAFT
UFS clip board and keysIN-AIRCRAFT
Check ListIN-AIRCRAFT
Air Worthiness Certificate.....IN-AIRCRAFT
Registration.....IN-AIRCRAFT
GPS Reference GuideIN-AIRCRAFT
Weight and Balance CHECKED
Parking Brake SET
Control Wheel..... RELEASE BELTS
Magneto Switch OFF
Avionics Switch OFF
Circuit Breakers.....IN

POWER

Master Switch (Batt) ON
Fuel Qty (R & L) CHECK
Avionics..... ON
Avionics Fan (If Installed) VERIFY ON
GPS data base VERIFY CURRENT
Avionics Switch OFF
Annunciator Panel..... TEST
Beacon ON
Navigation Lights..... ON
Taxi/Landing Lights ON
Pitot Heat ON

VERIFY LIGHTS, PITOT HEAT, STALL WARNING

POWER - CONTINUED

Navigation Lights OFF
Taxi/Landing Lights OFF
Pitot Heat..... OFF
Master Switch OFF
Elevator Trim Control..... TAKEOFF
Fuel Selector Valve.....LEFT or RIGHT
Alternate Static Air ValveCHECK FORWARD
Fire ExtinguisherCHECK
Flaps (Extend One Notch at a Time) VERIFY

RIGHT WING

FlapCHECK
AileronCHECK
Wing Tip.....CHECK
Leading EdgeCHECK
Fuel Quantity CHECK VISUALLY
Fuel Filler Cap SECURE
Right Tire.....CHECK
Right Brake..... SECURE/WEAR INDICATOR
Right Brake Line NO LEAKS
Right Main Gear Strut SECURE
Right Wing Fuel Sump..... DRAIN
Right Wing Tiedown..... REMOVE and STOW
Right Wing Cabin Air IntakeCHECK

NOSE

CowlingCHECK / SECURE
Engine Oil Dipstick/Filler Cap.....CHECK
Engine Cooling Air Inlets CLEAR
Prop and SpinnerCHECK
Alternator Belt CHECK TENSION
Nosewheel Strut and TireCHECK
Air Intake.....CHECK
Nose Sump (pilot side)..... DRAIN
Windscreen.....CHECK (CLEAN)

LEFT WING

Left Wing Cabin Air IntakeCHECK
Fuel QuantityCHECK VISUALLY
Fuel Filler Cap SECURE
Left Tire.....CHECK
Left Brake..... SECURE/WEAR INDICATOR
Left Brake LineNO LEAKS
Left Main Gear Strut SECURE
Left Wing Fuel Sump.....CHECK
Left Wing Tiedown..... REMOVE and STOW
Leading Edge.....CHECK
Wing Tip.....CHECK
Static Wicks (if installed)..... SECURE
AileronCHECK
FlapCHECK

LEFT FUSELAGE

Body STRAIGHT
COM/GPS/VOR AntennasCHECK
Data PlateCHECK

RUDDER

Stabilator / Trim.....CHECK
Tail Tiedown REMOVE
RudderCHECK
Static Wicks (If Installed) SECURE

RIGHT FUSELAGE

Body STRAIGHT
Baggage Door SECURE

N21489 – PIPER ARCHER II

EMERGENCY PROCEDURES

ENGINE FIRE DURING START ON GROUND

STARTER.....CRANK ENGINE
MIXTURE..... IDLE CUTOFF
THROTTLE OPEN
ELECTRIC FUEL PUMP OFF
FUEL SELECTOR..... OFF

(ABANDON IF FIRE CONTINUES)

ENGINE POWER LOSS DURING TAKEOFF RUN

SUFFICIENT RUNWAY REMAINING

LAND STRAIGHT AHEAD

INSUFFICIENT RUNWAY REMAINING

- MAINTAIN SAFE AIRSPEED
- MAKE ONLY SHALLOW TURNS TO AVOID OBSTRUCTIONS
- FLAPS AS SITUATION REQUIRES

SUFFICIENT ALTITUDE GAINED

MAINTAIN SAFE AIRSPEED

FUEL SELECTOR..... FULLEST FUEL TANK
ELECTRIC FUEL PUMP CHECK ON MIXTURE.....CHECK RICH
CARB HEAT..... ON
PRIMER LOCKED

(If Power is Not Regained, Proceed with Power Off Landing)

LOSS OF OIL PRESSURE/HIGH OIL TEMP

Land as soon as possible and investigate the cause. Prepare for power off landing.

LOSS OF FUEL PRESSURE

Electric Fuel Pump ON
Fuel Selector CHECK ON FULL TANK

ENGINE POWER LOSS IN FLIGHT

FUEL SELECTOR..... FULLEST FUEL TANK
ELECTRIC FUEL PUMP ON
MIXTURE RICH
CARB HEAT ON
ENGINE GAUGESCHECK

(for indication of cause of power loss)

Primer CHECK LOCKED
(If NO fuel pressure is indicated, check tank selector position to be sure it is on a tank containing fuel)

WHEN POWER IS RESTORED

CARB HEAT OFF
ELECTRIC FUEL PUMP OFF
(if power is NOT restored, prepare for a power off landing)

TRIM FOR 76 KIAS

POWER OFF LANDING

Ignition Switch OFF
Master Switch OFF
Fuel Selector OFF
Mixture IDLE CUTOFF
Seatbelt and Harness TIGHT
Doors..... UNLATCH PRIOR TO TOUCHDOWN

ENGINE FIRE IN FLIGHT

Source of FireCHECK

ELECTRICAL FIRE

Master Switch OFF
Vents OPEN
Cabin HT and Cabin AIR OFF (push in)

LAND AS SOON AS POSSIBLE

ENGINE FIRE

Fuel Selector OFF
Throttle CLOSED
Mixture IDLE CUTOFF
Electric Fuel Pump CHECK OFF
Heater and Defroster OFF
PROCEED WITH POWER OFF LANDING PROCEDURE

ALTERNATOR FAILURE

VERIFY FAILURE

REDUCE ELECTRICAL LOAD AS MUCH AS POSSIBLE
Alternator Circuit Breakers CHECK
Alt Switch OFF (FOR 1 SEC)

IF NO OUTPUT

Alt Switch OFF

REDUCE ELECTRICAL LOAD and LAND AS SOON AS POSSIBLE

CARBURETOR ICING

CARB HEAT ON
MIXTURE ..ADJUST FOR MAX SMOOTHNESS

ENGINE ROUGHNESS

CARB HEAT ON
IF ROUGHNESS CONT. AFTER 1 MINUTE
CARB HEAT OFF
MIXTURE ..ADJUST FOR MAX SMOOTHNESS
ELECTRIC FUEL PUMP ON
FUEL SELECTOR.....SWITCH TANKS
ENGINE GAUGES..... CHECK
MAGNETO SWITCH...“L” then “R” then BOTH

If operation is satisfactory on either one, continue on that MAG at reduced power and full “RICH” mixture to first airport.

PREPARE FOR POWER OFF LANDING

SPIN RECOVERY

Throttle IDLE
Ailerons NEUTRAL
Rudder FULL OPPOSITE to direction of rotation
Control Wheel..... FULL FORWARD (to break stall)
Rudder NEUTRAL (when rotation stops)
Control Wheel..... AS REQ TO SMOOTHLY REGAIN LEVEL FLIGHT ATTITUDE