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PA28-181 CHEROKEE ARCHER II CHECKLIST

Normal Procedures

PREFLIGHT CHECK

Control Wheel	RELEASE BELTS
Avionics	OFF
Master Switch	ON
Fuel Quantity Gauges	CHECK
Master Switch	OFF
Ignition	OFF
Exterior	CHECK FOR DAMAGE
Control Surfaces	CHECK FOR INTERFERENCE- FREE OF ICE, SNOW, FROST
Hinges	CHECK FOR INTERFERENCE
Wings	FREE OF ICE, SNOW, FROST
Stall Warning	CHECK
Tie Down & Chocks	REMOVE
Navigation & other Lights	CHECK
Fuel Tanks	CHECK SUPPLY VISUALLY & SECURE CAPS
Fuel Tank Sumps	DRAIN
Fuel Vents	OPEN
Main Gear Struts	PROPER INFLATION (4.5in.)
Tires	CHECK
Brake Blocks	CHECK
Pitot Head	REMOVE COVER & HOLES CLEAR
Windshield	CLEAN (INSIDE & OUT)
Propeller & Spinner	CHECK
Fuel & Oil	CHECK FOR LEAKS
Oil	CHECK LEVEL
Dipstick	PROPERLY SEATED
Cowling	SECURE
Inspection Covers	SECURE
Nose Wheel Tire	CHECK
Nose Gear Strut	PROPER INFLATION (3.25in.)
Air Inlets	CLEAR
Alternator Belt	CHECK TENSION
Tow Bar & Control Locks	STOW

BaggageSTOW PROPERLY & SECURE
Baggage Door CLOSE & SECURE
Fuel Strainer DRAIN
Primary Flight Controls PROPER OPERATION
Cabin Door CLOSED & SECURE
Required Papers ON BOARD
Seat Belts & Harness FASTEN/ADJUST & CHECK INERTIA REEL

BEFORE START

Pre flight and passenger brief COMPLETE
Flight Authorisation COMPLETE
Maintenance Release CHECKED & SIGNED
Seats ADJUSTED & SECURED
BRAKE SET
Carburettor Heat FULL OFF
Fuel Selector DESIRED TANK (LEFT OR LEAST)
Radios/AvionicsOFF

STARTING ENGINE WHEN COLD

Throttle ¼ "OPEN
Master Switch ON
Electric Fuel Pump ON
Mixture FULL RICH
Starter ENGAGE
ThrottleADJUST
Oil PressureCHECK

If engine does not start within 10 sec. prime and repeat starting procedure

STARTING ENGINE WHEN HOT

Throttle ½"OPEN
Master Switch ON
Electric Fuel Pump ON
Mixture FULL RICH
Starter ENGAGE
ThrottleADJUST
Oil PressureCHECK

FLOODED ENGINE START

- ThrottleOPEN FULL
- Master Switch..... ON
- Electric Fuel Pump OFF
- Mixture..... ICO
- Starter ENGAGE
- Mixture..... ADVANCE
- Throttle RETARD
- Oil Pressure..... CHECK

STARTING WITH EXTERNAL POWER SOURCE

- Master Switch..... OFF
- All electrical Equipment OFF
- Terminals CONNECT
- External Power Plug..... INSERT IN FUSELAGE

»Proceed with normal start«

- Throttle LOWEST POSSIBLE RPM
- External Power Plug..... DISCONNECT FROM FUSELAGE
- Master Switch..... ON / CHECK AMMETER
- Oil Pressure..... CHECK

AFTER START

- Throttle800 to 1200 RPM
- Oil Pressure.....GREEN
- Fuel Pump OFF
- Mixture..... LEANED A/R
- Alternator.....CHARGING
- Avionics and Intercom.....ON / SET / CHECKED

TAXI CHECKS

- BrakesCHECKED
- Flight InstrumentsCHECKED

GROUND CHECKS (RUN UPS)

Park Brake.....ON
Fuel Selector.....RIGHT or FULLEST TANK
Engine Instruments.....CHECKED GREEN
Throttle.....2000 RPM
Oil Temp & Pressure.....CHECKED GREEN
Magnetos.....MAX DROP 175 RPM
MAX DIFF. 50 RPM
Carburettor Heat.....CHECK
Vacuum.....5.0" HG (+/- .1)
Annunciator Panel.....PRESS-TO-TEST
Fuel Pressure.....CHECK
Throttle Idle.....CHECKED >600 RPM
Throttle.....1000 RPM
Air Conditioning (if fitted).....CHECK

BEFORE TAKE OFF

Master Switch.....ON
Magnetos.....BOTH
Flight Instruments.....CHECK
Fuel Selector.....PROPER TANK (FULLEST)
Electric Fuel Pump.....ON
Engine Gauges.....CHECK
Carburettor Heat.....OFF (COLD)
Seat Backs.....ERECT
Mixture.....SET A/R
Primer.....LOCKED
Throttle Friction.....SET
Belts/Harnesses.....FASTENED/ADJUSTED
Empty Seats.....SEAT BELTS SNUGLY FASTENED
Flaps.....SET A/R
Trim Tab.....SET
Controls.....FULL, FREE & CORRECT
Doors.....LATCHED
Departure Brief.....COMPLETE
Take Off Saftey Brief.....COMPLETE

LINE UP

Instruments (Compass & DI).....ALIGNMENT CHECKED
Strobes & Lights ON A/R
Transponder ON / MODE C

AFTER TAKE OFF

FlapsRETRACTED
Fuel PumpOFF & PRESSURE CHECKED
Engine InstrumentsCHECKED
Landing Light..... OFF

APPROACH AND LANDING

BrakesCHECKED & OFF
Fuel SelectorPROPER TANK (FULLEST TANK)
Seat Backs ERECT
Belts / Harness FASTENED
Electric Fuel Pump ON
Mixture.....SET
Flaps SET - 102KTS MAX
Air Conditioning (if fitted)..... OFF

FINAL APPROACH

Wing Flaps..... SET 40°
Carburettor Heat..... COLD

AFTER LANDING

FlapsRETRACTED
Electric Fuel Pump OFF
Strobes & Landing light..... OFF
Transponder STBY
Trims NEUTRAL

STOPPING ENGINE

FlapsRETRACT
Electric Fuel Pump.....OFF
Radios /AvionicsOFF
Throttle.....800-1000 RPM
Magnetos..... CHECKED
Throttle..... FULL AFT
Mixture ICO
Magnetos.....OFF
Master SwitchOFF

SECURING AEROPLANE

Parking brake SET
Control Wheel..... SECURE
Flaps FULL UP
Wheel Chocks IN PLACE
Tie Downs & Covers.....SECURE

Emergency Procedures

ENGINE FIRE DURING START

StarterCRANK ENGINE
Mixture IDLE CUT-OFF
Throttle OPEN
Electric Fuel Pump OFF
Fuel Selector..... OFF
Abandon if fire continues

ENGINE POWER LOSS DURING TAKE OFF

If sufficient runway remains for a normal landing:

Land straight ahead

If insufficient runway remains:

Maintain Safe Airspeed
Make only shallow turn to avoid obstructions
Flaps as situation requires

If sufficient altitude has been gained to attempt a restart:

Maintain safe airspeed
Fuel Selector.....SWITCH TO TANK CONTAINING FUEL
Fuel PumpON
MixtureRICH
Carburetor HeatON
Engine GaugesCHECK FOR INDICATION OF
CAUSE OF POWER LOSS
Primer LOCKED
If power is not regained, proceed with power off landing.

ENGINE POWER LOSS IN FLIGHT

Fuel Selector..... SWITCH TO TANK CONTAINING FUEL
Electric Fuel Pump ON
Mixture RICH
Carburetor Heat..... ON
Engine Gauges CHECKED FOR INDICATION OF PWR LOSS
Primer CHECKED LOCKED

If no fuel pressure indicated, check tank selector position to be sure it is on a tank containing fuel.

If Power is Restored:

Carburetor Heat..... OFF
Electric Fuel Pump OFF

If power is not restored prepare for power off landing & trim for 73 KIAS

Power Off Landing: (Once committed to landing)

Ignition OFF
Master Switch..... OFF
Fuel Selector..... OFF
Mixture ICO
Seatbelts and Harnesses TIGHT

FIRE IN FLIGHT

Source of fire CHECK

ELECTRICAL FIRE (smoke in cabin):

Master Switch OFF

Air Vents OPEN

Cabin Heat OFF

Land as soon as practicable

ENGINE FIRE:

Fuel Selector OFF

Throttle CLOSED

Mixture ICO

Electric fuel pump CHECK OFF

Heater and Defroster OFF

Proceed with power off landing procedure

LOSS OF OIL PRESSURE / HIGH OIL TEMP

Land as soon as possible and investigate cause.

Prepare for power off landing.

LOSS OF FUEL PRESSURE

Electric Fuel Pump ON

Fuel Selector CHECK ON FULLEST TANK

ELECTRICAL FAILURE

ALT Annunciator Light Illuminated:

Ammeter CHECK TO VERIFY INOP. ALT

If Ammeter Shows Zero:

ALT Switch OFF

Reduce electrical loads to a minimum:

ALT Circuit Breaker CHECK & RESET AS REQUIRED

ALT Switch ON

If power not restored:

ALT Switch OFF

If alternator output cannot be restored, reduce electrical load and land as soon as practicable.

ELECTRICAL OVERLOAD

(ALT OVER 20 AMPS ABOVE KNOWN ELECTRICAL LOAD)

ALT Switch ON

BATT Switch OFF

If alternator loads are reduced:

Electrical loads REDUCE TO MINIMUM

Land as soon as practical.

If alternator loads are not reduced:

ALT Switch OFF

BATT Switch AS REQUIRED

SPIN RECOVERY

- ThrottleIDLE
- Ailerons.....NEUTRAL
- Rudder..... FULL OPPOSITE TO DIRECTION OF ROTATION
- Control Wheel FULL FORWARD
- Rudder..... NEUTRAL (when rotation stops)
- Wing Flaps..... Up (if extended)
- Control Wheel AS REQUIRED TO SMOOTHLY
REGAIN LEVEL FLIGHT

OPEN DOOR

To close door in flight:

- Slow aeroplane to 89 KIAS
- Cabin vents CLOSED
- Storm Window..... OPEN
- If upper latch is open LATCH
- If side latch is open PULL ON ARMREST WHILE MOVING
LATCH HANDLE TO LATCHED POSITION
- If both latches are open LATCH SIDE, then LATCH TOP

ENGINE ROUGHNESS

- Carburetor Heat.....ON

If roughness continues for 1 minute:

- Carburetor Heat.....OFF
- Mixture..... ADJUST FOR MAX SMOOTHNESS
- Electric Fuel PumpON
- Fuel Selector SWITCH TANKS
- Engine GaugesCHECK
- Magneto Switch“L” then “R” then “BOTH”

*If operation is satisfactory on either one, continue on that magneto at reduced power and full “RICH” mixture to first airport.
Prepare for power off landing.*

CARBURETOR ICING

- Carburetor Heat.....ON
- Mixture..... ADJUST FOR MAX SMOOTHNESS

AIRCRAFT SUMMARY

For full details refer to the aircraft Flight Manual and/or the Pilot's Operating Handbook for the specific aircraft.

Engine Lycoming O-360-A4A
180HP @ 2700 RPM

Oil Capacity 8 Quarts maximum

Grade of Fuel 100/130 (green) or 100LL (blue)

Total Capacity.....189 litres

Useable Fuel 182 litres

Best Angle of climb (V_X) 64 KIAS

Best Rate of climb (V_Y).....76 KIAS

Maximum Demonstrated Crosswind.....17KIAS

Best Glide Speed.....76 KIAS

Maximum Flap Extension Speed (V_{FE})..... 102 KIAS

Never Exceed Speed (V_{NE})..... 154 KIAS