



PA-28-161



CHEROKEE / WARRIOR



PREFLIGHT

COCKPIT

1	Avionics	OFF
2	Master Switch	ON
3	Fuel Quantity Gauges	CHECK
4	Master Switch	OFF
5	Ignition	OFF

RIGHT WING

1	Flap	CHECK
2	Aileron	CHECK
3	Wing Tip & Leading Edge	CHECK
4	Fuel Tank	CHECK, DRAIN & SECURE
5	Shock Strut	CHECK
6	Tire	INFLATION / TREAD
7	Brakes	CHECK
8	Fresh Air Inlet	CLEAR

NOSE

1	Oil Level	CHECK 6 – 8 qts.
2	Propeller & Spinner	CHECK
3	Alternator Belt	CHECK
4	Landing Light	CHECK / CLEAN
5	Air Inlet	CLEAR
6	Shock Strut	CHECK
7	Tire	INFLATION / TREAD
8	Windshield	CLEAN
9	Fuel Strainer	DRAIN

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PREFLIGHT

LEFT WING

1	Fresh Air Inlet	CLEAR
2	Brakes	CHECK
3	Tire	INFLATION / TREAD
4	Shock Strut	CHECK
5	Fuel Tank	CHECK, DRAIN & SECURE
6	Wing Tip & Leading Edge	CHECK
7	Aileron	CHECK
8	Flap	CHECK

EMPENNAGE

1	Antennas	CHECK
2	Elevator & Tab	CHECK
3	Rudder	CHECK
4	Baggage Door	CLOSED & SECURED

PREFLIGHT

BEFORE START

1	Brakes	SET
2	Carburetor Heat	OFF
3	Fuel Selector	DESIRED TANK
4	Radios	OFF

STARTING ENGINE

WHEN COLD

1	Throttle	1/4" OPEN
2	Master switch	ON
3	Electric fuel pump	ON
4	Mixture	FULL RICH
5	Starter	ENGAGE
6	Throttle	ADJUST
7	Oil pressure	CHECK

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

WHEN HOT

1	Throttle	1/2" OPEN
2	Master switch	ON
3	Electric fuel pump	ON
4	Mixture	FULL RICH
5	Starter	ENGAGE
6	Throttle	ADJUST
7	Oil pressure	CHECK

*Continue...
When flooded*

PREFLIGHT

WHEN FLOODED

1	Throttle	OPEN FULL
2	Master switch	ON
3	Electric fuel pump	OFF
4	Mixture	IDLE CUT-OFF
5	Starter	ENGAGE
6	Mixture	ADVANCE
7	Throttle	RETARD
8	Oil pressure	CHECK

WITH EXTERNAL POWER UNIT

1	Master switch	OFF
2	All electric equipment	OFF
3	Terminals	CONNECT
4	External power plug	INSERT
Proceed with normal start		
5	Throttle	LOWEST POSSIBLE RPM
6	External power plug	DISCONNECT
7	Master switch	ON – CHECK AMMETER
8	Oil pressure	CHECK

WARM UP

1	Throttle	800 to 1200 rpm
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PREFLIGHT

TAXIING

1	Chocks	REMOVED
2	Taxi area	CLEAR
3	Throttle	APPLY SLOWLY
4	Brakes	CHECK
5	Steering	CHECK

RUN UP

1	Throttle	2000 RPM
2	Magnetos	MAX. DROP 175 RPM MAX. DIFF 50 RPM
3	Vacuum	5.0" ±1
4	Oil temp	CHECK
5	Oil pressure	CHECK
6	Annunciator panel	TEST
7	Carburetor heat	CHECK

Engine is warm for takeoff when throttle can be opened without engine faltering.

8	Electric fuel pump	OFF
9	Fuel pressure	CHECK
10	Throttle	RETARD

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TAKEOFF · CRUISE

BEFORE TAKEOFF

1	Master switch	ON
2	Flight instruments	CHECK
3	Fuel selector	PROPER TANK
4	Electric fuel pump	ON
5	Engine gauges	CHECK
6	Carburetor heat	OFF
7	Seat backs	ERECT
8	Mixture	SET
9	Primer	LOCKED
10	Belts/harness	FASTENED/ADJUSTED
11	Empty seats	SEAT BELTS SNUGLY FASTENED
12	Flaps	SET
13	Trim tab	SET
14	Controls	FREE
15	Doors	LATCHED

TAKEOFF

NORMAL

1	Flaps	SET
2	Trim tab	SET
Accelerate to 60 KIAS		
3	Control wheel	BACK PRESSURE TO ROTATE

*Continue...
Short Field*

TAKEOFF · CRUISE

SHORT FIELD, OBSTACLE CLEARANCE

- 1 Flaps 25° (SECOND NOTCH)

Accelerate to 55 KIAS.

- 2 Control wheel BACK PRESSURE TO ROTATE

Maintain 55 KIAS until obstacle clearance.

Accelerate to 75 KIAS after obstacle is cleared.

- 3 Flaps RETRACT SLOWLY

SHORT FIELD, NO OBSTACLE

- 1 Flaps UP

Accelerate to 50 KIAS.

- 2 Control wheel BACK PRESSURE TO ROTATE

After breaking ground accelerate to best rate of climb speed 75 KIAS.

*Continue...
Soft Field*

TAKEOFF · CRUISE

SOFT FIELD, OBSTACLE CLEARANCE

- 1 Flaps 25° (SECOND NOTCH)

Accelerate and lift off nose gear as soon as possible.

Lift off at lowest possible airspeed.

Accelerate just above ground to 55 KIAS to climb past obstacle height.

Continue climbing while accelerating to best rate of climb speed 75 KIAS.

- 2 Flaps SLOWLY RETRACT

SOFT FIELD, NO OBSTACLE

- 1 Flaps 25° (SECOND NOTCH)

Accelerate and lift off nose gear as soon as possible.

Accelerate just above ground to 55 KIAS to climb past obstacle height.

- 2 Flaps SLOWLY RETRACT

TAKEOFF · CRUISE

CLIMB

- | | |
|--------------------------|---------|
| 1. Best rate (flaps up) | 75 KIAS |
| 2. Best angle (flaps up) | 65 KIAS |
| 3. En route | 80 KIAS |
| 4. Electric fuel pump | OFF |

CRUISING

Reference performance charts and Avco-Lycoming Operator's Manual.

- | | |
|---------------------|---------------------|
| 1. Normal max power | 75% |
| 2. Power | SET POWER PER TABLE |
| 3. Mixture | ADJUST |

DESCENT

NORMAL

- | | |
|--------------------|----------------|
| 1. Throttle | 2500 RPM |
| 2. Airspeed | 126 KIAS |
| 3. Mixture | RICH |
| 4. Carburetor Heat | ON IF REQUIRED |

POWER OFF

- | | |
|--------------------|---------------------------------------|
| 1. Carburetor heat | ON IF REQUIRED |
| 2. Throttle | CLOSED |
| 3. Airspeed | AS REQUIRED |
| 4. Mixture | AS REQUIRED |
| 5. Power | VERIFY WITH THROTTLE
EVERY 30 SECS |

LANDING

APPROACH AND LANDING

1	Fuel selector	PROPER TANK
2	Seat backs	ERECT
3	Belts/harness	FASTEN/ADJUST
4	Electric fuel pump	ON
5	Mixture	SET
6	Flaps	SET (103 KIAS MAX)
	Trim to 70 KIAS.	
7	Final approach speed (flaps 40°)	65 KIAS

STOPPING ENGINE

1	Flaps	RETRACT
2	Electric fuel pump	OFF
3	Radios	OFF
4	Throttle	FULL AFT
5	Mixture	IDLE CUT-OFF
6	Magnetos	OFF
7	Master switch	OFF

PARKING

1	Parking brake	SET
2	Control wheel	SECURED WITH BELTS
3	Flaps	FULL UP
4	Wheel chocks	IN PLACE
5	Tie downs	SECURE

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ENGINE

ENGINE FAILURE DURING TAKEOFF

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

1	Fuel selector	TANK CONTAINING FUEL
2	Electric fuel pump	ON
3	Mixture	RICH
4	Carburetor heat	ON
5	Primer	LOCKED

If power is not regained, proceed with POWER OFF landing.

ENGINE

ENGINE FAILURE IN FLIGHT

1	Fuel selector	SWITCH TO TANK CONTAINING FUEL
2	Electric fuel pump	ON
3	Mixture	RICH
4	Carburetor heat	ON
5	Engine gauges	CHECK FOR INDICATION OF CAUSE OF POWER LOSS
6	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

7	Carburetor heat	OFF
8	Electric fuel pump	OFF

*If power is not restored prepare for POWER OFF landing.
Trim for 75 KIAS.*

ENGINE

ENGINE ROUGHNESS

1 Carburetor heat ON

If roughness continues after one min.

2 Carburetor heat OFF

3 Mixture ADJUST FOR MAX SMOOTHNESS

4 Electric fuel pump ON

5 Fuel selector SWITCH TANK

6 Engine gauges CHECK

7 Magnetos switch "L" - "R" - "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.

ENGINE

POWER OFF LANDING

Locate suitable field

Establish spiral pattern

1000 ft. above field at downwind position for normal landing approach.

When field can easily be reached slow to 65 KIAS for shortest landing.

Touchdowns should normally be made at lowest possible airspeed with full flaps.

When committed to landing:

- | | | |
|---|-----------------------|--------------|
| 1 | Ignition | OFF |
| 2 | Master switch | OFF |
| 3 | Fuel selector | OFF |
| 4 | Mixture | IDLE CUT OFF |
| 5 | Seatbelts and harness | TIGHT |

FIRES

ENGINE FIRE DURING START

- | | | |
|---|--------------------|--------------|
| 1 | Starter | CRANK |
| 2 | Mixture | IDLE CUT-OFF |
| 3 | Throttle | OPEN |
| 4 | Electric fuel pump | OFF |
| 5 | Fuel selector | OFF |

Abandon if fires continues.

FIRE IN FLIGHT

- | | | |
|---|----------------|-------|
| 1 | Source of fire | CHECK |
|---|----------------|-------|

ELECTRICAL FIRE (SMOKE IN CABIN)

- | | | |
|---|---------------|------|
| 1 | Master switch | OFF |
| 2 | Vents | OPEN |
| 3 | Cabin heat | OFF |

Land as soon as practicable.

ENGINE FIRE

- | | | |
|---|--------------------|--------------|
| 1 | Fuel selector | OFF |
| 2 | Throttle | CLOSED |
| 3 | Mixture | IDLE CUT-OFF |
| 4 | Electric fuel pump | CHECK OFF |
| 5 | Heater | OFF |

Proceed with POWER OFF LANDING procedure.

ELECTRICAL

ELECTRICAL FAILURES

ALT ANNUNCIATOR LIGHT ILLUMINATED

- | | | |
|---|---------|-------------------------------|
| 1 | Ammeter | CHECK TO VERIFY INOP.
ALT. |
|---|---------|-------------------------------|

IF AMMETER SHOWS 0

- | | | |
|---|------------|-----|
| 2 | ALT Switch | OFF |
|---|------------|-----|

Reduce electrical loads to minimum.

- | | | |
|---|---------------------|-------------------------|
| 3 | ALT Circuit Breaker | CHECK AND RESET AS REQ. |
| 4 | ALT Switch | ON |

IF POWER NOT RESTORED

- | | | |
|---|------------|-----|
| 5 | ALT Switch | OFF |
|---|------------|-----|

If alternator output cannot be restored, reduce electrical loads and land as soon as practical. The battery is the only remaining source of electrical power.

ELECTRICAL

ELECTRICAL OVERLOAD

FOR AIRPLANES WITH INTERLOCKED BAT AND ALT SWITCH OPERATION

- | | | |
|---|-----------------|--------|
| 1 | Electrical load | REDUCE |
|---|-----------------|--------|

If alternator loads are reduced

- | | | |
|---|------------|-----|
| 2 | ALT Switch | OFF |
|---|------------|-----|

Land as soon as practical. Battery is the only remaining source of power. Anticipate complete electrical failure.

FOR AIRPLANES WITH SEPARATE BAT AND ALT SWITCH OPERATION

- | | | |
|---|-------------|-----|
| 1 | ALT Switch | ON |
| 2 | BATT Switch | OFF |

If alternator loads are reduced

- | | | |
|---|-----------------|-------------------|
| 3 | Electrical load | REDUCE TO MINIMUM |
|---|-----------------|-------------------|

Land as soon as practical.

NOTE

Due to increased system voltage and radio frequency noise, operation with ALT switch ON and BATT switch OFF should be made only when required by an electrical system failure.

IF ALTERNATOR LOADS ARE NOT REDUCED

- | | | |
|---|-------------|---------|
| 4 | ALT Switch | OFF |
| 5 | BATT Switch | As req. |

Land as soon as possible. Anticipate complete electrical failure.

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OIL AND FUEL

HIGH OIL TEMPERATURE

Land at nearest airport and investigate the problem.
Prepare for power off landing.

LOSS OF OIL PRESSURE

Land at nearest airport and investigate the problem.
Prepare for power off landing.

LOSS OF FUEL PRESSURE

- | | | |
|---|--------------------|--------------------|
| 1 | Electric fuel pump | ON |
| 2 | Fuel selector | CHECK ON FULL TANK |

OTHERS

OPEN DOOR

If both upper and lower latches are open, the door will trail slightly open and airspeeds will be reduced Slightly.

To close the door in flight.

Slow airplane to 89 KIAS.

1	Cabin vents	CLOSE
2	Storm window	OPEN
3	If upper latch is open	LATCH
4	If side latch is open	PULL ON ARM REST WHILE MOVING LATCH HANDLE TO LATCHED POSITION
5	If both latches are open	LATCH SIDE THEN TOP

SPIN RECOVERY

1	Throttle	IDLE
2	Ailerons	NEUTRAL
3	Rudder	FULL OPPOSITE TO DIRECTION OF ROTATION
4	Control wheel	FULL FORWARD
5	Rudder	NEUTRAL (WHEN ROTATION STOPS)

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