CHEROKEE/WARRIOR CHECKLIST

V SPEEDS (MPH)

Vso	55	VA	Max weight	128
Vs1	65		Min weight	122
VR	60	VNO	140	
VX	75	VNE	171	
VY	85	VFE	115	
VG	85			

Cherokee Max Crosswind 17
Warrior Max Crosswind 20

PASSENGER BRIEF

Seatbelts
Air Vents
Fire Extinguisher
Traffic/Talking
Y... Questions
Exits, Emergency, Electronics

CREW BRIEF

- This will be a (normal/short/soft field) takeoff.
- Calculated T/O distance is _____ft.
- We will depart RWY ____, which is ___ ft.
- We will rotate at Vr __, Climb at Vx/Vy __.

1. *Any malfunction prior to Rotation:*
   - Announce "**ABORT**" 3X, power idle, brakes.
2. *Engine failure after Rotation* below 900 ft MSL.
   -We will land straight ahead with flaps to decrease touchdown speed and shallow turns to avoid obstacles.
3. *Engine failure, with alt above 900 ft MSL.*
   -Consider return to the field using best pilot judgment.

   (You/I) will fly the emergency.
   We will depart to the (direct) climb to_____ft.
   (You/I) have flight controls.

FUEL

100LL Blue
Total Usable - Reserves 48 gal. (Cap 50 gal.)
Cherokee – To tabs (Standard) 36 gal.
Warrior – To tabs (Standard) 34 gal.

Best Power Fuel Burn Rate
Cherokee – 140 hp
75% - 8.4 gal/hr @ 2150 lbs (490 nm range - 4 hrs.)
50% - 5.6 gal/hr @ 2150 lbs (650 nm range - 6.4 hrs.)
Warrior – 150 hp
75% - 9.2 gal/hr @ 2325 lbs (560 nm range – 3.5 hrs.)
55% - 6.7 gal/hr @ 2325 lbs (660 nm range - 5 hrs.)

RICH OF PEAK (ROP) – BEST POWER

1). Reference Power vs. Alt Chart for RPM setting, then……

Leaning Fuel with EGT
a). Lean mixture until EGT peaks
b). Set marker bug on peak
c). Enrich mixture 50 deg

Leaning Fuel with RPM
a). Lean mixture until engine runs rough
b). Enrich mix. until engine runs smoothly

OIL

Capacity	min 6 qts. max 8 qts.
Type	Aeroshell W15W-50

AIRCRAFT

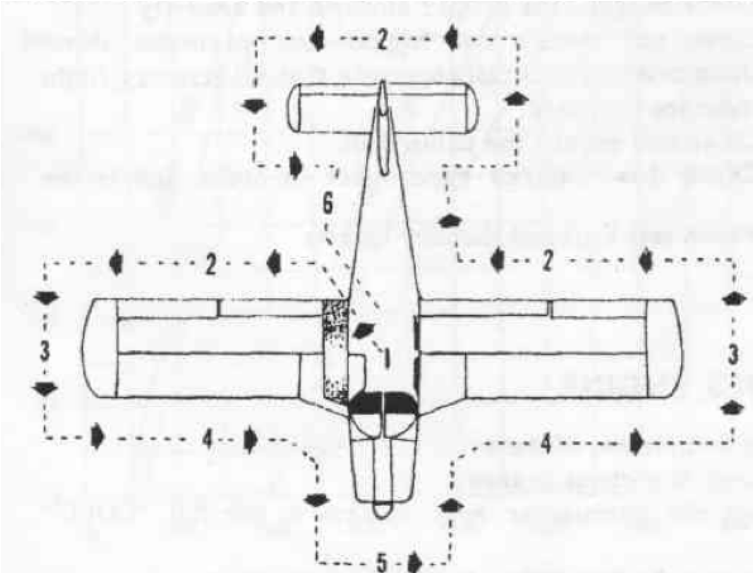
Tire Pressure Nose & Mains	24 in. lbs.
Main Struts	4.5 in.
Nose	3.25 in.
Brake Fluid	MIL-H-5606
Flap Positions	10°, 25°, 40°
Engine	
Cherokee	Lycoming 140 hp @ 2700 rpm
Warrior	Lycoming 150 hp @ 2700 rpm
Alternator	12V
Battery	25 Amper/hr

PERFORMANCE

Cherokee	
Service Ceiling	14.5K @ 2150 lbs.
Absolute Ceiling	16.8K @2150 lbs.
Warrior	
Service Ceiling	12.7K @ 2325 lbs.
Absolute Ceiling	14.9K @ 2325 lbs.

TRANSPONDER CODES

VFR	1200
Hijacking	7500
Lost Comm	7600
Emergency	7700



AIRCRAFT ACCEPTANCE

1. MAINTENANCE STATUS .....CHECK
2. HOBBS/TACH TIMES ..... CHECK

(1) PREFLIGHT INSPECTION CABIN

1. A.R.O.W DOCUMENTS..... CHECK
2. CONTROL WHEEL..... FREE & CORRECT
3. CIRCUIT BREAKERS ..... CHECK
4. IGNITION SWITCH..... OFF
5. RADIO/AVIONICS ..... OFF
6. CARBURETOR HEAT ..... COLD
7. BATTERY/MASTER SWITCH ..... ON
8. FUEL QTY/SELECT DESIRED TANK..CHECK
9. LIGHTS/PITOT HEAT..... ON/CHECK/OFF
10. STALL WARNING..... CHECK
11. BATTERY/MASTER SWITCH ..... OFF
12. FLAPS..... EXTENDED
13. PARKING BRAKE..... AS REQ
14. FIRE EXT/SAFETY EQUIP ..... CHECK
15. EMPTY SEATS..... SEAT BELTS FASTENED
16. BAGGAGE.....SECURE

EXTERNAL INSPECTION

(2, 3, 4) RIGHT WING

1. WING (TRAILING EDGE/TOP) ..... CHECK
2. FLAP ..... CHECK
3. AILERON ..... CHECK
4. NAV/ANTI COLLISION LIGHTS ..... CHECK
5. WING (LEADING EDGE) ..... CHECK
6. FUEL TANK SUMP..... DRAIN
7. FUEL TANK .....VIS CHECK-SECURE CAP
8. FUEL VENT..... CHECK
9. TIE DOWN/CHOCKS ..... REMOVE
10. MAIN STRUT.....PROP INFLAT (4.5")
11. TIRE/BRAKE ..... CHECK
12. DOOR HINGES ..... CHECK

(5) ENGINE COMPARTMENT

1. WINDSHIELD ..... CHECK
2. RIGHT COWLING.....CHECK COND/OPEN
3. ENGINE (HOSES, CLAMPS) ..... CHECK
4. OIL ..... CHECK LEVEL (MIN 6 QTS)
5. DIP STICK ..... PROPERLY SEATED
6. RIGHT COWLING ..... PROPERLY SEATED
7. PROPELLER/SPINNER.....CHECK
8. NOSE WHEEL TIRE.....CHECK
9. NOSE GEAR STRUT...PROP INFLAT (3.25")
10. TOW BAR/CHOCKS...REMOVED/STOWED
11. AIR INLETS.....CLEAR
12. ALTERNATOR BELT .....CHECK TENSION
13. LEFT COWLING .....CHECK COND/OPEN
14. ENGINE (HOSES, CLAMPS) ..... CHECK
15. BRAKE FLUID ..... CHECK
16. LEFT COWLING ..... PROPERLY SEATED
17. FUEL FILTER ..... DRAIN

(4, 3) LEFT WING

1. WING (LEADING EDGE/TOP) ..... CHECK
2. TIRE/BRAKE ..... CHECK
3. MAIN STRUT.....PROPER INFLAT (4.5")
4. FUEL TANK SUMP..... DRAIN
5. FUEL TANK VENT ..... CHECK
6. TIE DOWN/CHOCKS ..... REMOVE
7. FUEL TANK .....CHECK VIS SECURE CAP
8. STALL WARNING.....CHECK
9. PITOT COVER.....REMOVED/HOLES CLEAR
10. NAV ANTICOLLISION LIGHTS .....CHECK
11. AILERON .....CHECK
12. FLAP .....CHECK

(2) FUSELAGE (LEFT SIDE)

1. GENERAL CONDITION .....CHECK
2. ANTENNAS.....CHECK
3. UNDERBELLY.....CHECK

(2) EMPENNAGE

1. STABILATOR.....FREE AND CORRECT
2. RUDDER .....CHECK
3. TAIL TIE DOWN..... REMOVE
4. ANTENNAS.....CHECK

(6) FUSELAGE (RIGHT SIDE)

1. GENERAL CONDITION .....CHECK
2. UNDERBELLY.....CHECK

BEFORE STARTING ENGINE

1. FLAPS ..... RETRACTED
2. SEATS .....ADJUSTED SEAT
3. BELTS/HARNESSES ..... FASTENED
4. FLT CONTROLS.....FREE & CORRECT
5. ANTI-COLLISION BEACON ..... ON
6. PASSENGER BRIEF*/**SAFETY**.....BRIEFED
7. BRAKES ..... HOLD

STARTING ENGINE
(NORMAL AND/OR COLD)

DO NOT USE PRIMER IF ENGINE IS HOT

1. KEY .....IN IGNITION
2. PRIME .....TWO STROKES (AS REQ)
3. MIXTURE..... FULL RICH
4. BATTERY/MASTER SWITCH ..... ON
5. ELEC FUEL PUMP .....ON/CHK PRESS/OFF
6. THROTTLE (PUMP 2X) .....1⁄4 IN. OPEN
7. PROPELLER AREA....."CLEAR PROP"
8. IGNITION SWITCH..... BOTH/START
   (IF NO START WITHIN 5 SEC. PRIME & REPEAT PROCEDURE)
9. THROTTLE .....1,000 RPM
10. OIL PRESSURE..... INDICATION IN 30 SEC
11. MIXTURE..... LEAN (ABOUT 1")

TAXI

1. AVIONICS.....ON/SET
   (PROGRAM GPS)
2. RADIOS .....ON/SET
   (ATIS, CLR DEL, GND, CTAF)
3. TRANSPONDER ..... ALT
4. FLIGHT INSTRUMENTS.....CHECK SET
5. NAV/ANTI COLL LIGHTS..... AS REQ
6. RADIO .....STATE INTENT
   (CLR DEL, GND, CTAF)
7. TAXI AREA.....CLEAR
8. THROTTLE ..... APPLY SLOWLY
9. BRAKES ..... RELEASE/BRAKE CHECK

ENGINE RUN-UP

1. DOOR ..... CLOSED & LATCHED
2. ELECTRIC FUEL PUMP.....ON
3. FUEL QTY....SWITCH TANK/FULEST TANK
4. ELECTRIC FUEL PUMP.....OFF
5. PRIMER ..... IN & LOCKED
6. MIXTURE.....FULL RICH
7. OIL TEMP .....GREEN ARC
8. THROTTLE .....2,000 RPM
9. VACUUM..... 5.0" GREEN
10. AMMETER.....POSITIVE (CHARGING)
11. OIL PRESSURE .....GREEN ARC
12. FUEL PRESSURE .....GREEN ARC
13. CARB HEAT.....ON/OFF, RPM DROP
14. MAGNETOS.....LEFT/BOTH/RIGHT/BOTH
    (MAX DROP 175 RPM/MAX DIFF 50)
15. THROTTLE IDLE ..... 600-800 RPM
16. THROTTLE .....1000 RPM
17. FLIGHT INSTRUMENTS..... CHECK/SET
18. CIRCUIT BREAKERS/FUSES..... CHECK
19. CREW BRIEF*.....ANNOUNCE
20. RADIOS/AVIONICS/NAV.....SET
    (GND)TWR, DEPT, CTAF)

NORMAL TAKE-OFF

1. ELECTRIC FUEL PUMP ..... ON
2. MIXTURE.....FULL RICH
3. CARBUETOR HEAT ..... OFF
4. TRANSPONDER ..... ALT
5. LANDING LIGHT..... ON
6. FLAPS ..... SET
7. TRIM TAB(S)..... SET
8. DOORS/WINDOWS .....LATCHED
9. APPROACH COURSE.....FINAL CLEAR
10. RADIO.....STATE: POSITION/INTENT

LAST FINAL CHECK

LIGHTS.....LANDING LIGHT ON

CAMERA.....TRANSPONDER ALT

ACTION.....SET UP FOR TAKEOFF

SHORT FIELD TAKE OFF

1. FLAPS.....2 NOTCHES
2. BRAKE.....HOLD
3. THROTTLE.....FULL
4. ENG INSTRUMENTS.....IN THE GREEN
5. BRAKES.....RELEASE
6. CLIMB OBSTICAL .....Vx 74/Vy 85

SOFT FIELD TAKE OFF

1. FLAPS.....2 NOTCHES
2. CONTROL WHEEL.....FULL BACK PRESS
3. THROTTLE.....FULL
4. ENG INSTRUMENTS.....IN THE GREEN
5. BRAKES.....RELEASE
6. CLIMB OBSTICAL .....Vx 74/Vy 85

CLIMB (1,000 AGL CHECK) - NORMAL

1. THROTTLE..... FULL
2. FLAPS..... UP
3. CRUISE CLIMB .....Vy 85/100 MPH
4. ELECTRIC FUEL PUMP ..... OFF
5. LANDING LIGHT..... OFF

CRUISE

Ref perform. charters & Avco-Lycoming Oper. Manual

1. NORMAL MAX POWER..... 75%
2. POWER ..... SET PER POWER TABLE
3. MIXTURE .....(ABOVE 3000') LEAN
4. FLIGHT INSTRUMENTS ..... ADJUST

DESCENT

1. THROTTLE ..... AS REQ
2. CARB HEAT..... AS REQ
3. AIRSPEED..... AS REQ
4. MIXTURE .....ENRICH AS YOU DESCEND

BEFORE LANDING

1. ELECTRIC FUEL PUMP ..... ON
2. FUEL SELECTOR .....FULLEST TANK
3. MIXTURE ..... FULL RICH
4. LANDING LIGHT..... ON
5. RADIOS .....SET
6. HEADING INDICATOR.....SET
7. FLAPS.....SET
8. SEAT BELTS/HARNESSES ..... FASTENED

Gas fullest tank
Under Carriage down and locked
Mixture full rich
Prop full forward
Set up/Lights on

AFTER LANDING - CLEAR OF ACTIVE

1. TRANSP..... STBY (OFF IF END OF FLT)
2. CARB HEAT.....OFF
3. ELECTRIC FUEL PUMP ..... OFF
4. LANDING LIGHT..... OFF
5. MIXTURE .....LEAN (ABOVE 1")
6. FLAPS..... RETRACTED

ENGINE SHUTDOWN

1. ANTI-COLLISION BEACON .....ON
2. RADIOS/AVIONICS.....OFF
3. THROTLE.....1,200 (10 SEC)/1,000 RPM
4. MIXTURE .....IDLE CUT-OFF
5. IGNITION SWITCH .....OFF
6. ELECTRIC SWITCHES.....OFF
7. BATTERY/MASTER SWITCH .....OFF

SECURE AIRCRAFT

1. HOBBS/TACH TIME ..... RECORD
2. CABIN.....CLEAN
3. CHOCKS..... INSTALL
4. PITOT TUBE COVER ..... INSTALL
5. TIE DOWNS ..... AS REQ
6. DOOR/WINDOW ..... CLOSED & LOCKED
7. AIRCRAFT COVER ..... INSTALL
8. POST FLIGHT INSPEC.....COMPLETE
9. ACFT DISCREP.....ANNOTATE/NOTIFY

REMINDER:

-CELL PHONES

-MASTER SWITCH OFF

-LEAVE CHECKLIST WITH AIRCRAFT

EMERGENCY CHECKLIST

ENGINE FIRE DURING START

IF ENGINE HAS NOT STARTED

1. MIXTURE..... IDLE CUT-OFF
2. THROTTLE ..... OPEN
3. TURN ENG WITH STARTER ..... CONTINUE

IF ENGINE HAS ALREADY STARTED

4. CONTINUE OPERATING ..... 5-10 SEC
5. FUEL SELECTOR VALVES ..... OFF
6. MIXTURE..... IDLE CUT-OFF

*In both cases, use fire extinguisher is necessary

POWER LOSS ON TAKE-OFF

IF SUFFICIENT RUNWAY REMAINS

1. LAND STRAIGHT.....AHEAD

IF INSUFFICIENT RUNWAY REMAINS

2. AIRSPEED..... BEST GLIDE 85
3. SHALLOW TURNS...ONLY TO AVOID OBST
4. FLAPS ..... AS NEEDED

1,000 AGL OR HIGHER

5. AIRSPEED.....BEST GLIDE 85
6. FUEL SELECTOR..... SWITCH
7. ELECTRIC FUEL PUMP ..... ON
8. MIXTURE..... RICH
9. CARB HEAT ..... ON
10. BATTERY/MASTER SWITCH..... ON
11. IGNITION..... RESTART/RESTART

POWER LOSS IN-FLIGHT

1. AIRSPEED.....BEST GLIDE 85
2. BEST PLACE TO LAND ..... SELECT
3. CARB HEAT.....ON
4. MIXTURE .....RICH
5. ELECTRIC FUEL PUMP .....ON
6. PRIMER..... IN AND LOCKED
7. FUEL SELECTOR ..... SWITCH
8. ENGINE GUAGES ..... CHECK
9. FUEL PRESSURE ..... CHECK
10. IGNITION ..... START/BOTH, L, R

IF POWER IS RESTORED

11. CARB HEAT.....AS REQ

POWER OFF LANDING

1. AIRSPEED..... BEST GLIDE 85
2. BEST PLACE TO LAND ..... SELECT NEARST AIRPORT/FIELD
3. TRANSPONDER.....7700
4. RADIO..... MAYDAY/SOULS ONBOARD

LANDING ASURED

5. IGNITION ..... OFF
6. MASTER..... OFF
7. FUEL SELECTOR ..... OFF
8. MIXTURE .....IDLE CUT-OFF
9. SEATBELTS.....TIGHTEN
10. FLAPS..... REMOVED/STOWED
11. DOOR .....AJAR

FIRE INFLIGHT

1. SOURCE OF FIRE.....CHECK

ELECTRICAL FIRE (SMOKE IN CABIN)

1. MASTER..... OFF
2. VENTS..... OPEN
3. CABIN HEAT..... OFF
4. PITCH..... MANEUVERING SPEED
5. LAND ..... ASAP

ENGINE FIRE IN FLIGHT

1. MIXTURE..... IDLE CUT-OFF
2. THROTTLE .....CLOSED
3. FUEL SELECTOR..... OFF
4. HEATER/DEFROST..... OFF
5. AIRSPEED ..... MANEUVERING SPEED
6. LAND ..... IMMEDIATELY

LOSS OF OIL PRESSURE

1. THROTTLE .....NO SUDDEN CHANGES
2. LAND ..... ASAP

HIGH OIL TEMP

1. OIL PRESSURE GUAGE .....CHECKS
2. LOW RISE IN TEMP ..... LAND IMMEDIATELY

ABNORMAL CHECKLIST

LOSS OF FUEL PRESSURE

1. FUEL PUMP ..... ON
2. FUEL SELECTOR.....FULLEST TANK

ALTERNATOR FAILURE

1. AMMETER GUAGE ..... NOTE
2. LIGHTS ..... OFF IF POSSIBLE
3. ELECTRICAL LOAD ..... REDUCE
4. CIRCUIT BREAKERS ..... CHECK
5. ALT SWITCH..... OFF 30 SEC THEN ON
6. IF GUAGE CONT 0 OUTPUT.....ALT SWITCH-OFF

ENGINE ROUGHNESS

1. CARB HEAT.....ON & WAIT-RPM TO INCREASE
2. MIXTURE..... ADJUST FOR SMOOTHNESS
3. FUEL PUMP ..... ON
4. FUEL SELECTOR..... SWITCH
5. ENGINE GUAGES..... CHECK
6. MAGNETO ..... L,R, THEN BOTH

SPINS

1. POWER ..... IDLE
2. AILERON ..... NEUTRAL-AS REQUIRED
3. RUDDER ..... FULL OPPOSITE
4. ELEVATOR.....FULL FORWARD

OPEN DOOR

1. SPEED..... SLOW TO 100 MPH
2. CABIN VENTS ..... CLOSE
3. STORM WINDOW ..... OPEN

RADIO OUT

1. RADIOS..... SWITCH
2. VOLUME.....CHECK
3. RADIO MASTER.....CYCLE
4. CIRCUIT BREAKERS.....CHECK
5. TRANSPONDER.....SET 7600
6. BEACON/NAV/LANDING LIGHTS.....ON

Note:
*If you have a bluetooth headset call FSS/Tower and let them know you have a radio failure.
*VFR flight at uncontrolled airfield .....LAND
*VFR flight in controlled airfield .....Circle outside airspace look for tower light gun signals.

LANDING WITH A FLAT MAIN TIRE

1. EMERGENCY ..... DECLARE
2. LAND ON GOOD TIRE.....WING LOW ON GOOD TIRE
3. AILERON.....APPLY FULL IN DREICTION OF GOOD TIRE

Pre-Maneuver Checklist
Must be completed prior to any maneuver

Clearing turns……L, R 90° deg
Altitude……..Safe Alt for Maneuver
Radio……Call out intentions
Set up……..**B**oost pump on (fuel)
Gas fullest tank
Undercarriage down and locked
Mixture Rich
Prop full fwd

Power-Off Stall – Approach

Altitude……...Min. 1,500 ft agl
Throttle……..…1,700 rpm
Altitude Maintain…....….Airspeed 80 mph
White arc…...…..slowly add 3 notches flaps
Stabilized Approach……Begin descent
Throttle……...Reduce to Idle
Pitch Attitude…….……as if landing
Recover
Back pressure……....Reduce
Throttle……Full fwd
Wings……..Level, coordinated
Flaps……..…....One notch out
Pitch……Vy 85
VSI……...Positive rate climb (above 0)
Flaps……..…Reduce one notch at a time
Altitude…. climb to original alt and level off

Power-On Stall - Departure

Altitude……..…Min. 1,500 ft agl
Throttle……..…1,700 rpm
Altitude Maintain…..…….Airspeed 80 mph
Throttle……....Full Fwd
Pitch Attitude…….……as if taking off
Recover
Back pressure……....Reduce
Throttle……Full Fwd
Wings……..Level, coordinated
Pitch……Vx 75 or Vy 85
Altitude…. climb to original alt and level off

Slow Flight

Altitude……..…….Min. 1,500 ft AGL
Throttle……..……..1,700 RPM
Flaps…….....Clean 0 flaps
Dirty 3 notches
Airspeed…….....Clean 75 mph
Dirty 65 mph
Throttle……As necessary to maint. alt.
Pitch……..…..Up to decrease airspeed
Down to increase airspeed

Steep Turns

Altitude……..……Min. 1,500 ft. AGL
Power……..…...2,300 rpm
Airspeed……100 (Va or lower)
Heading…...……..noted
Bank……..……45±10 deg
Pitch…slight back press, keep nose on horiz.
Power…….…….add 200-300 rpm
Trim……..as required
Rollout……..……on noted heading ±10 deg
Pitch…..nose forward to prevent ballooning

Ground Reference Maneuvers

Altitude……..……800 – 1000 ft agl
Entry……..…. Downwind
Exit…….……..Downwind
S-Turns
Rectangular Course
Turns around a point

Short-Field Takeoff – See checklist
Soft-Field Takeoff – See checklist

Short-Field Landing

Flaps……..…..…3 notches (45° deg)
Airspeed……...……..75 mph
Touchdown……..within 200 ft of point
Braking……....Max while pulling full aft on yoke, Flaps 0

Soft-Field Landing

Flaps……...……..….45° deg
Touchdown……Softly, mains first
Nose wheel……...…….Gently lower

Go-Around

Throttle……Full fwd
Flaps……...…..25°
Pitch…..……Vx 75, Vy 85
VSI……...Positive rate of climb (above 0)
Flaps……...…Reduce one notch at a time
Side step……if conflicting traffic

Lost Procedures

1. Climb - Better reception range, able to see landmarks.
2. Circle - Don't want to get more lost, look for ground reference.
*Find nearest airport on GPS.
*Tune 2 diff VOR's and triangulate your position.
*Readjust flight instruments.
3. Confess – to yourself that you are lost, and you need help
4. Communicate – call ATC or 121.5 and confess lost
5. Comply – Follow ATC instructions

Diversion

- Recognize a situation that requires a diversion
- Mark time and location,
- Turn on course, find exact heading
- Distance
- Groundspeed
- Time Enroute, ETA
- Fuel required, do I have enough?
- Weather
- FSS to announce diversion amend ETA
- Airspace ahead?
- Aircraft Performance?