

CHECKLIST

N1523J



1967 **Piper** Cherokee 140

PA-28-140



**Nebraska
Flight
Center**

Eppley Airfield
3737 Orville Plaza
Omaha, NE 68110
Tel. (402) 342-4314

www.nebflight.com

1967

GENERAL INFORMATION

Model Piper PA-28-140 Cherokee 140
Serial No. 28-23921

Power Plant Lycoming O-320-D2A-111E
Type Four Cylinder/ Carbureted
Horsepower 160 HP @ 2,700 RPM
Propeller Sensenich, 2 Blade, Fixed Pitch
Electrical System 14 Volts DC

Fuel Capacity 50 Gal
Usable Fuel 48 Gal
Indicator Tab, each Tank 16 Gal
Fuel Type 100LL

Oil Capacity 6 to 8 Qts
Oil Type Phillips 66 ^x/_c 20W50

Main Gear Tire Pressure 24 psi
Main Gear Oleo Strut Extension 4½ in
Nose Gear Tire Pressure 24 psi
Nose Gear Oleo Strut Extension 3½ in

Basic Empty Weight (11-18-2014) 1,312 lbs
Arm 85.2 in
Moment 111,721 lbs/in

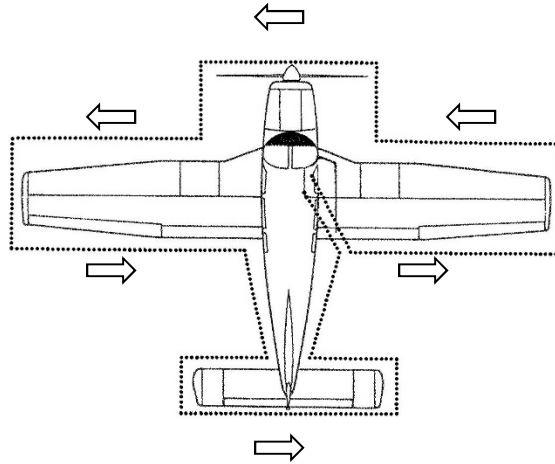
Maximum Gross Weight - **Normal** 2,150 lbs
Useful Load 838 lbs
Full Fuel 300 lbs
Maximum Useful Load, Full Fuel 538 lbs
Maximum in Baggage Compartment 200 lbs

Maximum Gross Weight - **Utility** 1,950 lbs
Useful Load 638 lbs
Full Fuel 300 lbs
Maximum Useful Load, Full Fuel 338 lbs
Maximum in Baggage Compartment 0 lbs

Cruise Airspeed, 2,200 RPM 105 kias
Fuel Consumption 8 to 10 gph

V_{S0} (flaps down) 47 kias
V_{S1} (clean) 55 kias
V_R 48 kias
V_X 64 kias
V_Y 74 kias
BEST GLIDE 72 kias
V_{FE} 100 kias
V_{NO} 122 kias
V_{NE} 148 kias
V_A at 2150 lbs (maneuvering) 112 kias
V_A at 1530 lbs 88 kias

(*) Maneuvering Speed Decreases As Aircraft Weight Decreases



PREFLIGHT INSPECTION

CABIN

- 1 Required Documents Aboard
- 2 Control Wheel Release Belt
- 3 Magneto Switch Off (remove key)
- 4 Avionics Off
- 5 Electrical Switches Off
- 6 Master Switch On
- 7 Fuel Gauges Check
- 8 Lights On
- 9 Pitot Heat On
- 10 Exit Aircraft - Position, Anti-Collision & Landing Lights Check
- 11 Pitot Tube Heat Check
- 12 Stall Warning Check
- 13 Lights Off
- 14 Pitot Heat Off
- 15 Master Switch Off
- 16 Circuit Breakers Check
- 17 Tach & Hobbs Time Record
- 18 Flaps Extend

RIGHT WING

- 1 Flap Check
- 2 Aileron Check
- 3 Wingtip Check
- 4 Tie-Down Release
- 5 Fuel Tank Check Quantity
- 6 Fuel Tank Vent Check
- 7 Fuel Tank Sump Drain
- 8 Main Wheel Tire Check
- 9 Brake Check Pads / Caliper
- 10 Main Strut Check Leakage / Ext (4½")
- 11 Wheel pants (if installed) Check

NOSE

- 1 Windshield Condition / Clean
- 2 Right Cowling Open
- 3 Oil Quantity .. **Do Not Over-Tighten Dipstick** 6 Qt +
- 4 Engine Mounts, Accessories, Leaks Check
- 5 Right Cowling Close / Secure
- 6 Nose Tire Check
- 7 Nose Strut Check Leakage / Ext (3¼")
- 8 Wheel pants (if installed) Check
- 9 Propeller Nicks / Security
- 10 Spinner Check
- 11 Cowling Air Inlets Check
- 12 Alternator Belt Check Condition / Tension
- 13 Oil Cooler Check
- 14 Carb Air Inlet Check
- 15 Left Cowling Open
- 16 Engine Mounts, Accessories, Leaks Check
- 17 Left Cowling Close / Secure
- 18 Fuel Strainer Drain

LEFT WING

- 1 Main Wheel Tire Check
- 2 Brake Check Pads / Caliper
- 3 Main Strut Check Leakage / Ext (4½")
- 4 Wheel pants (if installed) Check
- 5 Fuel Tank Check Quantity
- 6 Fuel Tank Vent Check
- 7 Fuel Tank Sump Drain
- 8 Pitot Mast Check Pitot & Static Ports
- 9 Tie-Down Release
- 10 Wingtip Check
- 11 Aileron Check
- 12 Flap Check

FUSELAGE LEFT SIDE

- 1 Windows / Antennas Check
- 2 Underside Check

EMPENNAGE

- 1 Air Inlet Check
- 2 Stabilator Check
- 3 Anti-Servo Tab Check
- 4 Rudder Check
- 5 Tie-Down Release

FUSELAGE RIGHT SIDE

- 1 Windows / Antennas Check
- 2 Underside Check
- 3 Main Door Check

BEFORE STARTING ENGINE

- 1 Preflight Inspection Completed
- 2 Seatbelts / Shoulder Harness Fasten / Adjust
- 3 Passenger Briefing Complete
- 4 Avionics Off
- 5 Carb Heat Off
- 6 Fuel Selector Tank with Least Fuel
- 7 Flight Controls Free and Correct
- 8 Brakes Test / Apply / Hold

STARTING ENGINE

- 1 Throttle Full Open
- 2 Mixture Full Rich
- 3 Master Switch On
- 4 Anti-Collision Light On
- 5 Electric Fuel Pump On
- 6 Primer Prime / Lock
- 7 Throttle Open 1/4"
- 8 Propeller Area Clear
- 9 Magneto Switch **Start only on LEFT**
- 10 Starter Engage
- 11 Magneto Switch Both
- 12 Throttle Adjust
- 13 Oil Pressure **Moving Up** within 30 Seconds
- 14 Warm-Up 1000-1100 RPM
- 15 Mixture **Lean for Taxi**
- 16 Ammeter Check
- 17 Electric Fuel Pump Off
- 18 Circuit Breakers Check
- 19 Fuel Pressure Check
- 20 Radios On / Set
- 21 Transponder Standby

BEFORE TAXI

- 1 Flaps Up
- 2 Nav Lights On
- 3 Listen to AWOS or ATIS Copy
- 4 Contact CLNC DEL / Radio Check Copy

TAXI

- 1 Brakes Check
- 2 Throttle As Required
- 3 Direction Control Check
- 4 Magnetic Compass Check
- 5 Turn Coordinator Check

BEFORE TAKEOFF / RUNUP

- 1 Cabin Door / Window Closed and Locked
- 2 Brakes Apply / Hold
- 3 Flight Controls Free & Correct
- 4 Fuel Selector Fullest Tank
- 5 Electric Fuel Pump On
- 6 Throttle 2000 RPM
- 7 Mixture Set / Best Rich
- 8 Engine Instruments Check
- 9 Magnetos Check
 - *Right / Both*
 - *Left / Both*
 - *Max Drop 175 RPM*
 - *Max Difference 50 RPM*
- 10 Carb Heat On / Check Drop / **Off**
- 11 Vacuum Verify 5.0" +/- .1"
- 12 Alternator Check Output
- 13 Electric Fuel Pump Off / Check Pressure / **On**
- 14 Throttle Retard
- 15 Mixture Full Rich
- 16 Flight Instruments Set
- 17 Primer Locked
- 18 Elevator Trim Set
- 19 Seats Locked
- 20 Seat Backs Erect
- 21 Landing Light On
- 22 Transponder Alt
- 23 Parking Brake Release

TAKEOFF

NORMAL TAKEOFF

- 1 Flaps Set (0 Degrees)
- 2 Mixture Full Rich
- 3 Power Full Throttle
- 4 Lift Off Lift Nose 50 kias
- 5 Climb 79 kias

SHORT FIELD

- 1 Flaps 25 Degrees (2nd Notch)
 - 2 Mixture Full Rich
 - 3 Power Full Throttle
- Brakes are NOT to be held during power application for training purposes, due to potential propeller damage.***
- 4 Lift Off Lift Nose 50 kias
 - 5 Climb Vx until obstacle cleared - 63 kias
 - 6 Transition to Vy 79 kias
 - 7 Flaps Retract

CLIMB

- 1 Electric Fuel Pump Off Above 1,000' AGL
- 2 Fuel Pressure Check
- 3 Engine Instruments Check
- 4 Airspeed 87 kias
- 5 Trim Adjust
- 6 Mixture Lean Above 5,000' MSL

CRUISE

- 1 Landing Light Off
- 2 Power Set for Cruise
 - *After cruise IAS has been reached:*
- 3 Trim Adjust
- 4 Mixture Lean / Best Power
- 5 Engine Instruments Check

DESCENT

- 1 Power Reduce, As Required
- 2 Carb Heat As Required
- 3 Mixture ENRICHEN
- 4 Landing Light *Prior to traffic pattern entry* On

LANDING

BEFORE LANDING

- 1 Seatbelts / Shoulder Harness Fasten / Adjust
- 2 Seat Backs Erect
- 3 Electric Fuel Pump On
- 4 Fuel Selector Fullest Tank
- 5 Carb Heat On, Check for Ice
- 6 Carb Heat As Required
- 7 Mixture Best Rich

REJECTED LANDING (GO AROUND)

- 1 Power Full Throttle
- 2 Flaps 25 Degrees (2nd Notch)
- 3 Positive Climb Verify
- 4 Flaps Retract After Acceleration

AFTER LANDING

(Aircraft Clear of the Runway, Stopped)

- 1 Flaps Retract
- 2 Carb Heat Off
- 3 Transponder **Off & Set to 1200**
- 4 Landing Light Off, or as needed

SECURING AIRPLANE

- 1 BrakesApply / Hold
- 2 Avionics Off
- 3 Lights and Electric Equipment Off
- 4 Carb Heat Off
- 5 Electric Fuel Pump Off
- 6 Throttle Retard
- 7 Mixture Idle / Cut-Off
- 8 Magneto Switch Off (remove key)
- 9 Beacon **Always ON**
- 10 Master Switch Off
- 11 Control Wheel Secure
- 12 Hobbs / Tach Record
- 13 Airplane Chock / Tie Down

IMPORTANT:

- Transponder: Set to 1200
- Do Not Push Airplane from Nose Cowl or Spinner
- Push or Pull Only from Propeller Root
- When Getting In or Out, Do Not Step Outside of Black Surface
- Be Careful Not To Damage The Vortex Generators on the Wing
- Do Not Step On Flaps

CLOSE YOUR FLIGHT PLAN !

EMERGENCY CHECKLIST

ENGINE FIRE DURING START

- 1 Starter Continue Cranking
- 2 Mixture Idle / Cut-Off
- 3 Throttle Open
- 4 Electric Fuel Pump Off
- 5 Fuel Selector Off
- 6 Magneto Switch Off
- 7 Master Switch Off
 - *Abandon, obtain fire extinguisher, if fire continues.*

ENGINE POWER LOSS DURING TAKEOFF

- 1 **If sufficient runway for landing straight ahead:** **LAND**

IF INSUFFICIENT RUNWAY REMAINS

- 1 Maintain Safe Airspeed 63 – 73 kias
 - *Make only shallow turns to avoid obstructions.*
- 2 Flaps As Required
- 3 Mixture Idle / Cut-Off
- 4 Throttle Off
- 5 Electric Fuel Pump Off
- 6 Fuel Selector Off
- 7 Magneto Switch Off
- 8 Master Switch Off
- 9 Cabin Door Unlatch
- 10 Touch Down Minimum Controllable Airspeed

IF SUFFICIENT ALTITUDE FOR RESTART

- 1 Maintain Safe Airspeed 63 – 73 kias
- 2 Electric Fuel Pump On
- 3 Fuel Selector Switch Tanks
- 4 Mixture Enrichen
- 5 Carb Heat On
- 6 Primer Locked
 - *If power is not restored, proceed with power-off landing.*

ENGINE ROUGHNESS

- 1 Carb Heat On

IF ROUGHNESS CONTINUES AFTER ONE MINUTE

- 2 Carb Heat Off
- 3 Mixture Adjust Max Smoothness
- 4 Electric Fuel Pump On
- 5 Fuel Selector Switch Tanks
- 6 Engine Gauges Check
- 7 Magneto Switch L then R then Both
 - *If operation is satisfactory on either one magneto, continue on that magneto at reduced power and full rich mixture to first suitable airport.*

PREPARE FOR POWER OFF LANDING

CARBURETOR ICING

- 1 Carb Heat On
- 2 Mixture Adjust Max Smoothness

ENGINE POWER LOSS IN FLIGHT

- 1 Maintain Safe Airspeed Min 73 kias
- 2 Fuel Selector Switch Tanks
- 3 Electric Fuel Pump On
- 4 Mixture Enrichen
- 5 Carb Heat On
- 6 Engine Gauges Check
- 7 Primer Locked
- 8 Magneto Switch Check

IF POWER IS RESTORED

- 1 Carb Heat As Required
- 2 Electric Fuel Pump On

IF POWER IS NOT RESTORED PREPARE FOR POWER OFF LANDING

TRIM AND MAINTAIN 73 KIAS

POWER OFF LANDING

- 1 Suitable Field Locate
- 2 Landing Pattern Establish
- 3 Transponder 7700
- 4 Radios Declare Emergency 121.5
- 5 Short Final 63 kias
- 6 Flaps Full or As Needed
- 7 Touch Down Minimum Controllable Airspeed

WHEN COMMITTED TO LANDING

- 1 Throttle Off
- 2 Mixture Idle / Cut-Off
- 3 Fuel Selector Off
- 4 Electric Fuel Pump Off
- 5 Magneto Switch Off
- 6 Master Switch Off
- 7 Cabin Door Unlatch
- 8 Seatbelts / Shoulder Harness Tight

FIRE IN FLIGHT

- 1 Source of Fire Determine

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 Off
- 5 Cabin Heat Off
- 6 Defroster Off

PREPARE FOR POWER OFF LANDING

LOSS OF OIL PRESSURE

LAND AS SOON AS POSSIBLE

PREPARE FOR POWER OFF LANDING

LOSS OF FUEL PRESSURE

- 1 Electric Fuel Pump On
- 2 Fuel Selector Fullest Tank

HIGH OIL TEMPERATURE

- 1 Mixture Enrichen
- 2 Airspeed Increase if Slow

**PROCEED TO NEAREST AIRPORT
PREPARE FOR POWER OFF LANDING**

ELECTRICAL FAILURES

ALT ANNUNCIATOR LIGHT ILLUMINATED

- 1 Ammeter Check, Verify Alt Inop

IF AMMETER SHOWS ZERO

- 2 ALT Switch Off
- 3 Electrical Load Reduce
- 4 ALT Circuit Breaker Check, reset as required
- 5 ALT Switch On

IF ALTERNATOR POWER NOT RESTORED

- 6 ALT Switch Off
 - *If alternator output cannot be restored, reduce electrical load and land as soon as practicable. The battery is the only remaining source of electrical power.*

ELECTRICAL OVERLOAD

***Alternator over 20 amps above
known electrical load***

- 1 Electrical Load Reduce

IF ALTERNATOR LOADS ARE REDUCED

- 2 ALT Switch Off
 - *Land as soon as practical. Battery is the only remaining electrical source.
Anticipate complete electrical failure.*

SPIN RECOVERY

- 1 Throttle Idle
- 2 Ailerons Neutral
- 3 Rudder Full opposite direction of rotation
- 4 Control Wheel Full Forward
- 5 Rudder Neutral when rotation stops
- 6 Control Wheel As required to smoothly regain level flight attitude

OPEN DOOR

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

TO CLOSE THE DOOR IN FLIGHT

- 1 Airspeed 89 kias
- 2 Cabin Vents Closed
- 3 Storm Window Open
- 4 If upper latch open Close
- 5 If bottom latch open Pull on armrest and Close
- 6 If both latches open Close bottom latch first

LIGHT GUN SIGNALS

Steady Green

Ground Cleared For Takeoff
In Flight Cleared To Land

Flashing Green

Ground Cleared To Taxi
In Flight Return For Landing

Steady Red

Ground Stop
In Flight Give Way, Continue Circling

Flashing Red

Ground Taxi Clear Of Runway In Use
In Flight Airport Unsafe, Do Not Land

Flashing White

Ground Return To Starting Point
In Flight Not Used

Alternating Red & Green

General Warning Signal
Exercise Extreme Caution

A superior pilot
uses his
superior judgment
to avoid situations
that require
the use
of his
superior skills