ARROW

PA-28R-201

PILOT'S CHECKLIST

2025

ARROW PA-28R-201

SPEEDS FOR OPERATION

Speeds are for maximum weight. To achieve the performance specified for takeoff distance, the speed appropriate to weight must be used.

TAKEOFF

Normal Rotation.....65-75 KIAS
Normal Climb Out.....90 KIAS (GEAR UP)

CLIMB

Best Rate of Climb (Vy).....90 KIAS (GEAR UP)
Best Rate of Climb(Vy)...78 KIAS (GEAR DOWN)
Best Angle of Climb (Vx).....78 KIAS (GEAR UP)
Best Angle of Climb(Vx)...72 KIAS (GEAR DOWN)
En Route Climb.....104 KIAS GEAR SPEEDS
Maximum Landing Gear Operating Speed.....129 KIAS
Maximum Landing Gear Retraction Speed.....107 KIAS

MANEUVERING SPEED

(Max. Rec. Turbulent Air Penetration Speed)
2750 LBS.....118 KIAS
1865 LBS.....96 KIAS

MAXIMUM DEMONSTRATED CROSSWIND

Takeoff or Landing.....17 KTS

PREFLIGHT INSPECTION

PREPARATION

Weather.....SUITABLE
Weight/C.G.....WITHIN LIMITS
Navigation.....PLANNED
Charts and Navigation Equipment.....ON BOARD
Performance and Range.....COMPUTED AND SAFE
Baggage.....WEIGHED, STOWED & TIED

COCKPIT

Aircraft Documents.....ON BOARD & VISIBLE
Control Wheel.....RELEASE BELTS
Landing Gear Emergency Release.....UP
Gear Handle.....DOWN
Parking Brake.....SET
Radio Master Switch.....OFF
Electrical Switches (Fans, Pitot Heat, AP/FD, AC, etc.).....OFF
Ignition Switch.....OFF
Magnetos.....OFF
Mixture.....IDLE CUT-OFF
Master Switch.....ON
Fuel Quantity Gauges.....CHECK
Annunciator Panel.....CHECK
Interior and Exterior Lights.....CHECK
Stall Warning.....CHECK
Pitot Heat.....CHECK
Master Switch.....OFF
Flight Controls.....FREE & CORRECT
Flaps.....EXTEND
Trim.....CHECK, SET NEUTRAL
Pitot & Static Drain.....DRAIN, CLOSE
Windows.....CHECK, CLEAN
Baggage, Empty Seats.....SECURE
Baggage Door.....CLOSE, SECURE

RIGHT WING

Wing Surface.....FREE OF ICE, SNOW, FROST
Flaps and Ailerons .....CHECK MOVEMENT, SECURITY
Static Wicks.....CHECK
Wing Tip and Lights.....CHECK
Fuel Tank.....CHECK SUPPLY & SECURE CAP
Fuel Tank Vent.....CLEAR
Fuel Tank Sump.....DRAIN
Wing Tie Down and/or Chocks.....REMOVE
Main Gear Strut.....CHECK (approx. 2 in.)
Tire.....CHECK
Brake Block and Discs.....CHECK
Switches and Gear Well.....CHECK
Fresh Air Inlet.....CLEAR

NOSE SECTION

Fuel and Oil.....CHECK FOR LEAKS
General Condition.....CHECK
Cowling.....SECURE
Oil.....CHECK QUANTITY (6 to 8 qts)
Dipstick.....PROPERLY SEATED
Oil Filler Inspection Door.....SECURE
Air Inlets.....CLEAR, REMOVE COVER
Engine Baffle Seals.....CHECK
Alternator Belt.....CHECK TENSION
Windshield.....CLEAN
Propeller and Spinner.....CHECK
Landing Light.....CHECK
Chock.....REMOVE
Nose Gear Strut.....CHECK (approx. 2.75 in)
Nose Wheel Tire.....CHECK
Switches and Gear Well.....CHECK
Fuel Strainer.....DRAIN

LEFT WING

Wing.....FREE OF ICE, SNOW, FROST
Fresh Air Inlet.....CLEAR
Main Gear Strut.....CHECK (approx. 2 in.)
Tire.....CHECK
Brake Block and Discs.....CHECK
Switches and Gear Well.....CHECK
Fuel Tank.....CHECK SUPPLY & SECURE CAP
Fuel Tank Sump.....DRAIN
Fuel Vent.....CLEAR
Wing Tie Down and/or Chocks.....REMOVE
Pitot Mast.....REMOVE COVER, HOLES CLEAR
Stall Warning Vane.....CHECK
Wing Tip and Lights.....CHECK
Aileron and Flaps .....CHECK MOVEMENT, SECURITY
Static Wicks.....CHECK

FUSELAGE

Antenna.....CHECK
Left Static Vent.....CLEAR
Fresh Air Inlet.....CLEAR
Empennage.....FREE OF ICE, FROST
Stabilator.....CHECK FOR INTERFERENCE
Tail Tie Down.....DISCONNECT
Right Static Vent.....CLEAR
Final Walk Around.....COMPLETE
Baggage Door.....SECURE

BEFORE STARTING ENGINE

Preflight Inspection.....COMPLETE
Seat Belts and Harnesses.....FASTEN, CHECK
Brakes.....SET
Circuit Breakers.....IN
Alternate Air.....OFF
Propeller.....FULL FORWARD
Radio Master Switch.....OFF
Fuel Selector .....DESIRED TANK
Passenger Briefing (SAFETY).....COMPLETE

ENGINE START WITH EXTERNAL POWER

REFER TO POH

NORMAL START – COLD ENGINE

Throttle.....1/2" OPEN
ALTR Switch.....ON
BATT MASTER Switch.....ON
Electric Fuel Pump.....ON
Strobes (Fin Strobes if equipped).....ON
Mixture.....RICH, THEN IDLE CUTOFF
Propeller Area.....CLEAR
Starter.....ENGAGE
Mixture.....ADVANCE
Throttle.....ADJUST TO 1000
Oil Pressure.....CHECK
Ammeter.....CHECK

NORMAL START – HOT ENGINE

Throttle.....1/2" OPEN
ALTR Switch.....ON
BATT MASTER Switch.....ON
Electric Fuel Pump.....ON
Strobes (Fin Strobes if equipped).....ON
Mixture.....IDLE CUT-OFF
Propeller Area.....CLEAR
Starter.....ENGAGE
Mixture.....ADVANCE
Throttle.....ADJUST TO 1000 RPM
Oil Pressure.....CHECK
Ammeter.....CHECK

STARTING ENGINE WHEN FLOODED

Throttle.....OPEN FULL
ALTR Switch.....ON
BATT MASTER Switch.....ON
Electric Fuel Pump.....OFF
Strobes (Fin Strobes if equipped).....ON
Mixture.....IDLE CUT-OFF
Propeller Area.....CLEAR
Starter.....ENGAGE
Mixture.....ADVANCE
Throttle.....ADJUST TO 1000 RPM
Oil Pressure.....CHECK
Ammeter.....CHECK

ENGINE FIRE DURING START

Starter.....CRANK ENGINE
Mixture.....IDLE CUT-OFF
Throttle.....OPEN
Electric Fuel Pump.....OFF
Fuel Selector.....OFF

ABANDON IF FIRE CONTINUES.

AFTER STARTING ENGINE

Throttle.....800 to 1200 RPM
Avionics Master Switch.....ON
Strobes.....(FIN if equipped).....OFF
NAV LIGHTS.....ON (night)
Electric Fuel Pump.....OFF
Mixture.....FULL RICH BELOW 5000ft
Flaps.....UP
Radios.....SET AND TEST
Flight Instruments .....CHECK/SET

a. Set fuel level on MFD
b. Check engine gauges on engine page on MFD
c. Annunciator press to test
d. Verify database is up to date
e. Set altitude and heading

Transponder.....GROUND
Fuel Selector .....SWITCH TANKS; Fuel Pump OFF
Dispatch..... .RAMP OUT

TAXI

Taxi Area.....CLEAR
Parking Brake.....RELEASE
Propeller.....FULL FORWARD
Throttle.....APPLY SLOWLY
Brakes.....CHECK
Steering.....CHECK
Flight Instruments.....CHECK
Ailerons.....SET TO WIND CONDITIONS

RUN UP

Brakes/Parking Brake.....HOLD AND SET
Mixture.....FULL RICH
Propeller.....FULL INCREASE
Throttle.....2000 RPM
Magnetos.....CHECK
(max drop 175 rpm, max difference 50 rpm)
If out of limits: At 2000 RPM lean and hold 20–30 sec. Monitor CHT/oil temp; do NOT overheat exceed limits. Enrich Mixture & recheck Magnetos limits…if still exceeding → SQUAWK
Ammeter.....CHECK
Oil Temperature.....CHECK
Oil Pressure.....CHECK
Fuel Pressure/Flow.....CHECK
Annunciator Panel.....PRESS TO TEST
Propeller.....EXERCISE, THEN FULL FORWARD
Propeller.....GOVERNOR CHECK
Alternate Air.....CHECK
Throttle.....IDLE CHECK (500-600 RPM)
Throttle..... 1000 RPM
Auto-Pilot .....CHECK
a. Heading left, right, center
b. Altitude climb, descent, level, and overpower
c. Check auto trim can be turned off
d. AP disconnect
Controls.....FREE
Trim .....NEUTRAL
Annunciator Panel Lights.....OUT
Crew Takeoff Briefing.....COMPLETE

BEFORE TAKEOFF

Flight Instruments (standby).....CHECK/SET
Radios and Avionics.....SET
Transponder.....SET
Engine Gauges.....CHECK
Fuel Quantity.....SUFFICIENT
Fuel Selector .....FULLEST TANK
BATT MASTR / ALTR Switch.....ON
FUEL PUMP.....ON
Landing Light.....ON
Strobe Light (Wing tip).....ON
Alternate Air.....OFF
Friction Handle.....SET
Mixture.....SET
Propeller.....FULL INCREASE
Flaps.....SET
Trim.....SET
Emergency Gear Extension lever.....UP
Warning Lights.....CHECK
Seat .....ADJUST/SECURE
Belts/Harnesses.....FASTENED
Crew Takeoff Briefing.....AS REQUIRED
Doors and Windows.....CLOSED & LATCHED
Parking Brake.....RELEASE

HIGH DENSITY ALTITUDE ENGINE LEANING TAKEOFF

Brakes.....APPLY & HOLD
Throttle.....FULL POWER
Mixture.....LEAN FOR BEST POWER
Leave the mixture in this position for takeoff. Do not overheat the engine when operating with mixture leaned. If overheating occurs, enrich the mixture enough that temperature returns to normal.

ENGINE FAILURE DURING TAKE OFF

If sufficient runway remains for a normal landing, leave gear down and land straight ahead.
If area is rough, or it is necessary to clear obstructions:
Gear Selector Switch.....UP
If sufficient altitude has been gained to attempt a restart:
Maintain safe air speed .....79 KIAS
Fuel Selector.....SWITCH to FULLEST TANK
Electric Fuel pump.....CHECK ON
Mixture.....CHECK RICH
Alternate Air.....OPEN
IF POWER IS NOT REGAINED, PROCEED WITH POWER OFF LANDING. Trim for 79 KIAS

NORMAL TAKEOFF

Flaps.....UP
Throttle.....FULL
Rotate .....65-75 KIAS
After a positive rate of climb is achieved and no runway is remaining to land on safely .....GEAR UP
Climb Speed.....90 KIAS

SHORT FIELD TAKEOFF 25° FLAPS

Flaps.....25°
Brakes.....HOLD
Throttle.....FULL INCREASE
Engine Gauges.....CHECK
Brakes.....RELEASE
Rotate.....60 KIAS
After breaking ground, accelerate to 72KIAS Gear down Vx and climb past the obstacle.
After positive rate of Climb.....GEAR UP
Accelerate to Gear up Vx.....78 KIAS
Flaps.....SLOWLY RETRACT
Accelerate to Gear up Vy.....90 KIAS

SOFT FIELD TAKEOFF 25° FLAPS

Flaps.....25°
Control Wheel.....TAIL LOW ATTITUDE
After breaking ground, accelerate in ground effect to the best gear down angle of climb speed 72 KIAS. Clear any obstacles.
After positive rate of Climb.....GEAR UP
Accelerate to Gear up Vx.....78 KIAS
Flaps.....SLOWLY RETRACT
Accelerate to Gear up Vy.....90 KIAS

ENGINE FAILURE AFTER TAKEOFF

If at low altitude*:*
Maintain safe air speed .....79 KIAS

PREPARE FOR POWER OFF LANDING.

If altitude permits:
Fuel Selector.....SWITCH
to tank containing fuel
Elector Fuel pump..... ON
Mixture.....RICH
Alternate Air.....OPEN
Engine Gauges.....CHECK
for cause of power loss.
If no fuel flow/pressure is indicated, check tank selector position to be sure it is on a tank containing fuel.
If power is not restored: PREPARE FOR POWER OFF LANDING. Trim for 79 KIAS

ENROUTE CLIMB (at 1000 AGL)

Airspeed.....104 KIAS
Throttle.....25”
Propeller.....2500 RPM
Landing Light.....OFF
Flaps.....0°
Mixture.....LEAN AS REQUIRED

CRUISE

Power.....SET
Mixture..... LEAN AS REQUIRED
Trim.....SET
Electric Fuel Pump.....OFF
Engine Gauges.....CHECK

APPROACH

ATIS/AWOS.....CHECK
Altimeter.....SET
Nav Instruments..... SET
Stations.....IDENTIFY
HSI.....SET
Mode.....VLOC or GPS
Comm Radios.....SET
Approach Briefing.....COMPLETE
Before Landing Checklist.....COMPLETE
Backup Nav & Radios.....AS DESIRED

DESCENT

Mixture.....ENRICH GRADUALLY
Propeller.....AS REQUIRED
Throttle.....AS REQUIRED
Airspeed.....AS REQUIRED

BEFORE LANDING

Fuel Selector.....PROPER TANK
Seat Backs.....ERECT
Belts/Harnesses.....FASTEN/CHECK
Electric Fuel Pump.....ON
Mixture.....FULL RICH
Propeller.....FULL INCREASE
Gear.....DOWN – 129 KIAS MAX
Flaps.....SET – 103 KIAS MAX
Landing Light.....ON
Trim.....75 KIAS ON FINAL

LANDING

Power .....AS REQUIRED
Flaps.....BELOW 102 KIAS
Airspeed.....70 KIAS ON FINAL (65 for Short/ Soft Field)
Braking.....AS REQUIRED

BALKED LANDING, GO - AROUND

Mixture.....VERIFY FULL RICH
Propeller.....FULL FORWARD
Throttle.....FULL POWER
Flaps.....RETRACT TO 25°
Airspeed.....78 KIAS
After Positive Rate of Climb.....GEAR UP
Flaps.....SLOWLY RETRACT

AFTER LANDING

Flaps.....0°
Strobe lights.....FIN STROBES
Landing/Recog lights.....OFF (Except at Night)
Electric Fuel Pump.....OFF
Transponder.....GROUND
Mixture.....FULL RICH BELOW 5000ft.
Elevator Trim.....NEUTRAL
Ailerons.....SET TO WIND CONDITIONS

SECURING AIRCRAFT

Radio Master Switch.....OFF
Electrical Equipment (Fans, Pilot heat, AC, etc.) .....OFF
Strobes.....OFF
Navigation lights..... OFF
Propeller.....FULL INCREASE
Throttle.....1000 RPM
Mixture.....IDLE CUT-OFF
WAIT FOR PROP TO STOP COMPLETELY
Ignition Switch.....OFF AND REMOVE KEY
Alternator Switch.....OFF
BATT MASTER Switch.....OFF
Parking Brake.....OFF
Tiedowns or chocks.....SECURE
Trash.....REMOVE

(If in windy conditions, secure control wheel with seatbelts)

EMERGENCY PROCEDURES

ENGINE FIRE DURING START

Starter.....CRANK ENGINE
Mixture.....IDLE CUT-OFF
Throttle.....OPEN
Electric Fuel Pump.....OFF
Fuel Selector ..... OFF

ABANDON IF FIRE CONTINUES

ENGINE POWER LOSS DURING TAKEOFF

If sufficient runway remains for a normal landing, leave gear down and land straight ahead.

If area is rough, or it is necessary to clear obstructions:
Gear Selector Switch.....UP

If sufficient altitude has been gained to attempt a restart:
Maintain safe Airspeed.....79 KIAS
Fuel Selector.....SWITCH
Electric Fuel Pump.....CHECK ON
Mixture.....CHECK RICH
Alternate Air.....OPEN

IF POWER IS NOT REGAINED, PROCEED WITH POWER OFF LANDING

ENGINE POWER LOSS DURING FLIGHT

If at low altitude:
Air speed .....MAINTAIN 79 KIAS min.

PREPARE FOR POWER OFF LANDING.

If altitude permits:
Fuel Selector.....SWITCH to tank containing fuel
Elector Fuel pump..... ON
Mixture.....RICH
Alternate Air.....OPEN
Engine Gauges.....CHECK
for cause of power loss.
If no fuel flow/pressure is indicated, check tank selector position to be sure it is on a tank containing fuel.
If power is not restored:
PREPARE FOR POWER OFF LANDING.
Trim for 79 KIAS

POWER OFF LANDING

Airspeed.....MAINTAIN 79 KIAS
Landing Pattern.....ESTABLISH
Seatbelts.....TIGHT
When Committed to Landing:

Landing Gear Selector.....AS REQUIRED
Flaps.....AS DESIRED
Throttle.....CLOSE
Mixture.....IDLE CUT-OFF
Ignition .....OFF
BATT MASTER Switch.....OFF
ALTR Switch.....OFF
Fuel Selector.....OFF
Passenger Door.....PROP OPEN

Contact surface at minimum possible airspeed

FIRE IN FLIGHT

Don smoke mask provided.
Source of Fire.....CHECK

ELECTRICAL FIRE
(Smoke in Cabin)
Master Switch.....OFF
Alternator Switch.....OFF
Vents.....OPEN
Cabin Heat.....OFF

LAND AS SOON AS PRACTICAL

ENGINE FIRE
Fuel Selector.....OFF
Throttle.....CLOSED
Mixture.....IDLE CUT-OFF
Electric Fuel Pump.....CHECK OFF
Heater.....OFF
Defroster.....OFF

PROCEED WITH POWER OFF LANDING PROCEDURE

LOSS OF OIL PRESSURE

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 proper tank

HIGH OIL TEMPERATURE

Land at Nearest Airport and Investigate the Problem

PREPARE FOR POWER OFF LANDING

PROPELLER OVERSPEED

Throttle.....RETARD
Oil Pressure.....CHECK
Propeller Control.....FULL DECREASE
Airspeed.....REDUCE
Throttle.....BELOW 2700 RPM

ELECTRICAL FAILURES

ALT ANNUNCIATOR LIGHT ILLUMINATED:

Ammeter.....CHECK TO VERIFY INOP. ALTERNATOR

IF AMMETER SHOWS ZERO:

Alternator Switch.....OFF
Electrical Load.....REDUCE TO MINIMUM
Alternator Circuit Breaker.....CHECK and RESET
Alternator Switch.....ON

IF POWER NOT RESTORED:

Alternator Switch.....OFF
Electrical Load..... REDUCE

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 OVERLOAD

(Alternator over 20 amps above known electrical load)

Battery Master Switch.....OFF

If ammeter reading does NOT decrease:

Alternator Switch.....OFF

LAND AS SOON AS PRACTICAL.
Use Emergency Landing Gear Extension to lower landing gear.

If ammeter reading DOES decrease:

BATT MASTER Switch.....ON
Ammeter.....MONITOR

If ammeter reading does NOT begin to decrease within five minutes:

BATT MASTER Switch.....OFF

LAND AS SOON AS PRACTICAL.

If ammeter reading DOES begin to decrease within five minutes:

Proceed with flight.
Ammeter.....MONITOR

ENGINE ROUGHNESS

Mixture.....ADJUST for smooth operation
Alternate Air.....OPEN
Electric Fuel Pump.....ON
Fuel Selector .....SWITCH TANKS
Engine Gauges.....CHECK
Magneto Switch.....L then R then BOTH

If operation is satisfactory on either magneto, proceed on that magneto at reduced power, with full RICH mixture, to a landing at the first available airport.

IF ROUGHNESS PERSISTS, PREPARE FOR A POWER OFF LANDING

OPEN DOOR IN FLIGHT

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

TO CLOSE DOOR IN FLIGHT:

SLOW AIRPLANE TO 87 KIAS.
Cabin Vents.....CLOSE
Storm Window.....OPEN
If upper Latch is Open.....LATCH
If Side Latch is Open .....PULL on ARMREST while moving Latch Handle to LATCH position
If both latches are open.....LATCH SIDE LATCH THEN TOP LATCH

EMERGENCY LANDING GEAR EXTENSION

Prior to emergency extension procedure:

BATT MASTER Switch……CHECK ON
ALTR Switch……CHECK ON
Circuit Breakers……..CHECK
NAV LIGHT Switch……..OFF (In Daytime)
Gear Indicator Bulbs……..CHECK

If landing gear does not check down and locked:

Airspeed……REDUCE BELOW 87 KIAS
Landing Gear Selector Switch…DOWN POSITION

If gear has still failed to lock down,

Move and hold the emergency lever down to the Emergency Down Position.

If gear has still failed to lock down,
yaw the airplane abruptly from side to side with the rudder.

If the nose gear will not lock down,
using the above procedure, slow the aircraft to the lowest safe airspeed attainable using the lowest power setting required for safe operation and accomplish the following:

Landing Gear Selector Switch……RECYCLE GEAR THROUGH UP POSITION AND THEN SELECT GEAR DOWN.

EMERGENCY DESCENT

Mixture……FULL RICH
Propeller……..FORWARD
Throttle……IDLE
Gear……DOWN – 129 KIAS MAX
Flaps……UP
Airspeed……..120 KIAS
Bank……30-45°

SPIN RECOVERY

Throttle……IDLE
Control Wheel……FULL FORWARD
Ailerons……NEUTRAL
Rudder….FULL OPPOSITE TO DIRECTION OF ROTATION
Rudder……NEUTRAL WHEN ROTATION STOPS
Control Wheel…..SMOOTHLY REGAIN LEVEL FLIGHT ATTITUDE

TAWS WARNING

Autopilot……DISCONNECT

Initiate a maximum performance climb:

Airspeed……78 KIAS

After warning ceases:
Power……MAX CONTINUOUS
Airspeed……..90 KIAS

Climb to safe altitude and report to ATC if applicable.

GPS LOSS OF INTEGRITY

DR=Dead Reckoning
LOI=Loss of Integrity
DR means the GPS is estimating your position from your last know location. LOI means the data has become inaccurate and the signal is lost.

Navigation……USE ALTERNATE SOURCES

If no alternate navigation means are available:

DR Mode……USE GTN

Note: GPS Position information will get worse over time.

LOI Mode……FLY TO NEAREST VFR CONDITIONS

Note: Only your last know position will be shown on the map. "GPS SIGNAL LOST" will be superimposed over it.