



CHECKLIST

Piper Arrow

VH-TXM



PIPER ARROW VH-TXM AIRCRAFT SPECIFICATIONS

Airspeeds for Normal Operations

Take off & Landing Speeds

Rotate Speed (Vr)	60 - 65kts	Normal Approach (Flaps Up)	85kts
Take Off Safety Speed	60kts	Normal Approach (Flaps 30°)	75kts
Best Angle (Vx)	78kts	Short Field Approach (Flaps Full)	69kts
Best Rate (Vy)	90kts	Baulked Approach (Max Power & Flap 20°)	60kts

General Speeds

Never Exceed (Vne)	183kts	Max Landing Gear Ext (VLe)	129kts
Max Normal Operating (Vno)	146kts	Max Landing Gear Retraction	107kts
Max Maneuvering (Va)	118kts	Level Stall Speed (Vs) – gear & flap up	60kts
Max Flap Extension	103kts	Level Stall Speed (Vso) – gear & flap down	55kts
Best Glide	79kts	Max Crosswind	17kts

Fuel & Oil

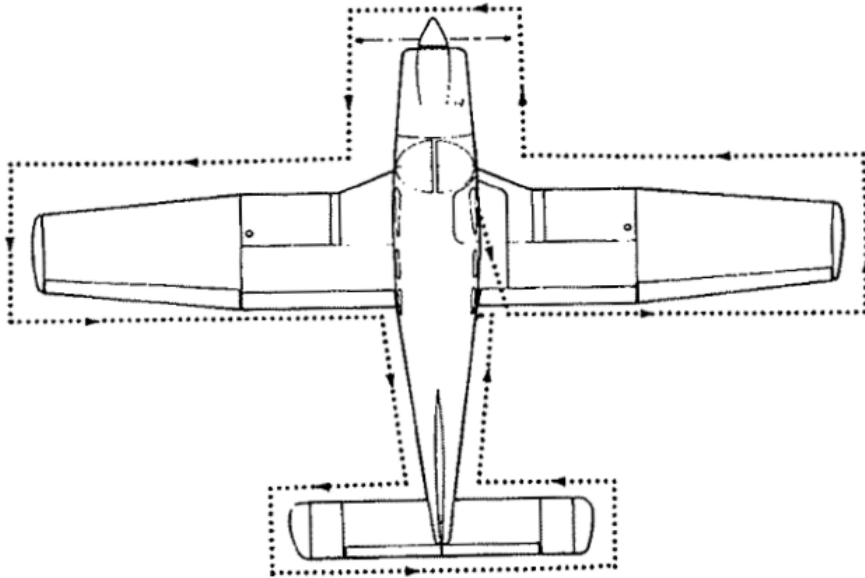
Fuel Type	100LL or 100/130 Avgas	Engine Type and Horsepower	Lycoming 200BHP @2700RPM
Maximum Fuel	292 litres	Oil Grade	Aero W100
Max Useable Fuel	273 litres	Maximum Oil	8 Quarts
Fuel Consumption	45 Litres/Hour	Minimum Oil	4 Quarts

****Note: 100LL Avgas is BLUE in colour and 100/130Avgas is GREEN****

Performance

Basic Empty Weight	781Kg	Maximum Power	2700 RPM
Max Take off Weight	1250 kg	Run up Power	2000 RPM
Max Landing Weight	1250 kg	Normal Cruise	23MP @ 2400 RPM

PREFLIGHT



WALK-AROUND

Figure 4-1

1) COCKPIT

Control Locks	Remove
Magnetos	Off
Master Switch	On
Flaps	Extend
Lights and Strobes	On and Check
Fuel	Check Quantity
Master Switch	Off
Fuel	Dip and Drain
Flight Record Sheet	Record Fuel and VDO

EXTERIOR

2) *Right Wing*

Flap	Check surface condition Check linkages and hinges
Aileron	Check surface condition Linkages and hinges secure

	Full free movement
Wing Tip	Check condition and Security
Lower Wing Surface	Check condition
Wing Leading Edge	Check for Dents along entire length

3) Landing Gear

Tyre	Check tread and general condition Check correct inflation
Hydraulic Line	Check for leaks
Disc Brake	Check condition
Strut	Check condition
Wheel Well	Check condition and clearance
Gear door	Check condition and security

4) Front Fuselage and Engine

Windscreen	Condition and cleanliness
Cowling	condition and security Open access panel and check oil
Propeller	Look for chips and cracks (esp. leading edge)
Spinner	condition and security Intakes clear
Nose Gear Door	Check condition and security
Nose Strut	Check oleo extension and condition
Nose Wheel	Check tread and general condition Check correct inflation
Stand Back and Check	Fuel Caps ON Tie downs OFF Start Up Area CLEAR, NO LOOSE STONES Prop Wash Area CLEAR General condition of aircraft GOOD

5) Landing Gear

Tyre	Check tread and general condition Check correct inflation
Hydraulic Line	Check for leaks
Disc Brake	Check condition
Strut and Fairing	Check condition
Wheel Well	Check condition and clearance
Gear door	Check condition and security

6) Left Wing

Wing Leading Edge	Check for Dents along entire length Check Pitot and Static head, Clear Check Stall Warning horn Check fuel Vent Clear
Wing Tip	Check condition and Security
Lower Wing Surface	Check condition

Aileron	Check surface condition Linkages and hinges secure Full free movement
Flap	Check surface condition Check linkages and hinges

7) Fuselage

Antennas	Check
Empenage	Check Condition
Stabilator and Trim Tab	Check
Tie Down	Remove

Pre Start

Pre Flight Inspection: Complete
Position: Clear
Maintenance Release: Check
Flight Manual: On-board
Pax Brief:

- Entry and exit points/emergency exits
- Seat adjustment
- Seatbelt usage
- Stowage of loose items
- Ventilation outlets and controls
- Remain clear of flight controls
- Emergency Equipment and how to use
- No Smoking policy
- Flight details

Security: Check
Seats: Adjusted and Secured
Hatches & Harness: Secure
Fuel: Left or lowest
Circuit breakers: Set
Mixture: Idle Cut Off
Throttle: Open 10mm
Friction Nut: Set
Switches and Avionics: Off
Trims: Set
Rotating Beacon: On
Battery : On
Flaps: Up
Oil Temp: Check
Nav Lights: As Req'd
Brakes: Test and Set

COLD START

- 1) Auxiliary Fuel Pump: On
- 2) Mixture: Full Rich until stable fuel flow is indicated (usually 3 - 5 seconds), then set IDLE CUTOFF position.
- 3) Ignition Switch: CLEAR PROP, START
- 4) Mixture: ADVANCE smoothly to RICH when engine starts.

HOT START

- 1) Auxiliary Fuel Pump: On
- 2) Ignition Switch: CLEAR PROP, START
- 3) Mixture: ADVANCE smoothly to RICH when engine starts.

FLOODED START

- 1) Auxiliary Fuel Pump: Off
- 2) Mixture: Idle Cut off
- 3) Throttle: Full On
- 4) Ignition Switch: CLEAR PROP, START
- 5) WHEN ENGINE STARTS, SET MIXTURE TO FULL RICH AND CLOSE THROTTLE PROMPTLY.

AFTER START

ROVER

R evs	Set 1000
O il Pressure	Green within 30 seconds
V acuum	Check
E lectrics	Alternator On – Charging Fuel Pump – Off – Check pressure
R adio	On & Check Frequency and Squelch Transponder SBY Code set Taxi/Landing Lights ...As Req'd

TAXI

BAG

B reaks	Test and check
A vionics	Check and set
G yro's	Check

PRE TAKEOFF – BRAKES ON

T rim	Stabilator and Rudder Check and Set
M ixture	Rich
P rimers	Off
F uel	Fuel Pump – On Change to fullest tank Fuel Pump – Off, Check Pressure
I nstruments	Attitude IndicatorSet Altimeter Elevation/QNH set Directional Gyro Set Turn Co coordinatorNo Flags Temps & Pressure GREEN
S witches	Test Idle Set 2000RPM

Magnetos

- Max Drop 175RPM
- Max Difference 50 RPM
- Smooth Running

Propellor - [Exercise](#)

Engine Instruments

- Vacuum GREEN
- Temps and Pressures GREEN
- Ammeter POSITIVE CHARGE

Set 1000RPM

Circuit Breakers In

Annunciator Lights - Check

Controls

Full Free and correct
Flaps ... cycle and set

Hatches and Harnesses

Secure

Emergency Brief

Complete

Departure brief

Complete

LINING UP

Lights, Camera, Action

Land Light & Strobes	ON
Transponder	ON 'ALTITUDE'
DI & Compass	CHECK ALIGNED
Fuel Pump	ON

AFTER TAKEOFF/ GO AROUND

PUFSIT

P ower	Full
U ndercarriage	Retracted
F laps	Retract
S witches	Landing Lights off, Fuel Pump off
I nstruments	Fuel Pressure – Stable, Climb performance, Centreline tracking Check
T emps and Pressure	Green

MANOEUVRES

HASEL

H eight	Sufficient to safely complete all manoeuvres
A rea	Suitable
S ecurity	Cabin secure/seats/harnesses
E ngine	Power and Mixture Checked Engine T's and P's Green
L ookout	Area Clear

ENROUTE

CLEAROFFS

C ompass & C ourse	Align and Tracking
L og	ETA's
E ngine	Lean and Green
A ltitude	QNH set and correct
R adios	Frequency set and correct Nav aids - Tuned Identified Tested
O rientation	
F uel	Log and contents
F orced Landing	
S artime	

PRELANDING/DOWNWIND

BUMFISH

B reaks	Pressure and off
U ndercarriage	Down
M ixture	Rich
F uel	On and sufficient
I nstruments	Altitude T's and P's Green
S witches	Landing Lights on Fuel Pump on
H atches and Harness	Secure

FINAL

PUFF

P itch	Full Fine
U ndercarriage	Down and GREEN
F lap	as req'd
F uel	Sufficient for Go-Around

AFTER LANDING

FLAPS
Transponder
Strobes

Identified and Retracted
SBY
Off

SHUTDOWN

Throttle
Avionics
Mixture
Switches
Master Switch

Set 1000RPM
Radios and Nav aids Off
Idle Cut off
Off
Off

EMERGENCIES

POWER LOSS IN FLIGHT

FMOST

F uel	On, Primer In and Locked
M ixture	Rich
O il	T's and P's Check
S witches	Mag Check, Fuel Pump On
T hrottle	Cycle and set

BEST GLIDE SPEED: 79KTS

ENGINE FIRE ON GROUND

Cranking Continue
If Engine Starts: 1800RPM for short time, shutdown and inspect for damage

If Engine Fails to Start:

Throttle	Full Open
Mixture	Idle cut off
Cranking	Continue to attempt a start
Fire Extinguisher	Ready
Fuel	Off
Master	Off
Ignition	Off
Fire Extinguisher	Use
Inspect for Damage	

ENGINE FIRE IN FLIGHT

AIRSPEED	100kts – increase glide speed to extinguish fire
Fuel	Off
Mixture	Idle cut off
Master	Off
Cabin Heat and air	Off, except wing roots
Land as soon as possible	

ELECTRICAL FIRE

Alternator and Master Switches	Off
All except ignition	Off
Vents/Cabin air/Heat	Off
If fire appears to be out	
Alternator and Master	On
Circuit Breakers	Check for faulty circuit... do not reset
Radio/Electrical Switches	On one at a time with a delay after each until short circuit is localized
Vents/Cabin Air/Heat	Open once fire is completely extinguished

ELECTRICAL POWER LOSS

Alternator & Master Switches	Off
All	All Off
Alternator	On
Essential Equipment	On
Land	As soon as possible

EMERGENCY GEAR EXTENSION

Battery Master Switch:	On
Alternator switch:	On
Circuit Breakers:	On
Nav Light Switch:	Off (if Daytime)
Gear Indicator Bulbs:	Check
If landing gear does not check down and locked:	
Airspeed:	Reduce Below 87kts
Landing Gear Selector Switch:	Down
Emergency Gear Handle:	Hold down

If gear still has failed to lock down Yaw and pitch the aeroplane abruptly

LANDING WITH A FLAT MAIN TYRE

1. Approach: NORMAL
2. Flaps: 30°
3. Touchdown: GOOD MAIN TYRE FIRST, hold airplane off flat tyre as long as possible with aileron control.
4. Directional Control: MAINTAIN using brake on good wheel as required.

LANDING WITH A FLAT NOSE WHEEL

1. Approach: NORMAL
2. Flaps: AS REQUIRED
3. Touchdown: ON MAINS, hold nose wheel off the ground as long as possible.
4. **When nose wheel touches down, maintain full up elevator as airplane slows to a stop.**

EMEGENCY GEAR UP LANDING

Flaps: Up
Throttle: Close
Mixture: Idle Cut-off
Ignition: Off
Batt/Master Switch: Off
Alternator: Off
Fuel Selector: Off
Harness: Secured and tight

Contact surface at minimum possible surface