



## **Piper Archer III (P28A-180)**

# **Quick Reference Handbook Version 1.0**

ALL GREY SHADED AREAS  
ARE MEMORY ITEMS



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# Pre-Flight

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## COCKPIT

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1. Control Wheel ..... Release Restraints
2. Parking Brake ..... Set
3. Avionics ..... Off
4. All Switches ..... Off
5. Mixture ..... ICO
6. Magneto Switches ..... Off
7. Battery Master Switch ..... On
8. Fuel Gauges ..... Check Quantity
9. Annunciator Panel ..... Check
10. Interior Lights ..... On – Check
11. Pitot Heat ..... On
12. Pitot Heat OFF/INOP Annunciator ..... Extinguished

### CAUTION

Care should be taken when an operational check of the heated pitot head is being performed. The unit becomes very hot. Ground operation should be limited to THREE minutes to avoid damaging the heater elements.

### NOTE

Secure and adjust all unused seat belts and shoulder harnesses to prevent control interference or passenger injury during flight in turbulent conditions.

13. Exterior Lighting Switches ..... On
14. Exterior Lighting ..... Check

- 15. Pitot Head..... Check Warm
- 16. Stall Warning Horn.....Check
- 17. All Lighting Switches ..... Off
- 18. Pitot Heat Switch..... Off
- 19. Pitot Heat OFF/INOP Annunciator .....Illuminated
- 20. Battery Master Switch ..... Off
- 21. Flaps..... Extend
- 22. Primary Flight Controls.....Proper Operation
- 23. Trim ..... Neutral
- 24. Pitot and Static Systems ..... Drain
- 25. Windows .....Check Clean
- 26. Required Papers and POH .....Check On Board
- 27. Tow Bar and Baggage .....Stow Properly – Secure
- 28. Baggage Door.....Close and Secure

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**RIGHT WING**

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- 1. Surface Condition ..... Clear of Ice, Frost and Snow
- 2. Flaps and Hinges .....Check
- 3. Aileron and Hinges.....Check
- 4. Static Wicks .....Check – Secure
- 5. Wing Tip and Lights .....Check
- 6. Fuel Tank.....Check Quantity Visually – Secure Cap
- 7. Fuel Tank Vent ..... Clear
- 8. Fuel Tank Drains ..... Drain and Check for Water,  
Sediment and Proper Fuel
- 9. Tie Down and Chock.....Remove

- 10. Main Gear Strut ..... Proper Inflation  
(4.5in ± 0.25in)
- 11. Tire ..... Check
- 12. Brake Block and Disc ..... Check
- 13. Fresh Air Inlet ..... Clear

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**NOSE SECTION**

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- 1. General Condition ..... Check
- 2. Cowling ..... Secure
- 3. Windshield ..... Clean
- 4. Propeller and Spinner ..... Check
- 5. Air Inlets ..... Clear
- 6. Engine Baffle Seals ..... Check
- 7. Chock ..... Remove
- 8. Nose Gear Strut ..... Proper Inflation  
(4.5in ± 0.25in)
- 9. Nose Wheel Tire ..... Check
- 10. Oil ..... Check Quantity
- 11. Dipstick ..... Properly Seated
- 12. Oil Filler Cap ..... Secure
- 13. Fuel Strainer ..... Drain

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## LEFT WING

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1. Surface Condition ..... Clear of Ice, Frost and Snow
2. Fresh Air Inlet ..... Clear
3. Fuel Tank Drains ..... Drain and Check for Water,  
Sediment and Proper Fuel
4. Fuel Tank Vent ..... Clear
5. Main Gear Strut ..... Proper Inflation  
(4.5in ± 0.25in)
6. Tire ..... Check
7. Brake Block and Disc ..... Check
8. Tie Down and Chock ..... Remove
9. Fuel Tank ..... Check Quantity Visually – Secure Cap
10. Pitot/Static Head ..... Remove Cover – Holes Clear
11. Wing Tip and Lights ..... Check
12. Flap and Hinges ..... Check
13. Static Wicks ..... Check Secure

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## FUSELAGE

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1. Antennas ..... Check
2. Empennage ..... Clear of Ice, Frost and Snow
3. Stabilator and Trim Tab ..... Check
4. Tie Down ..... Remove

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## MISCELLANEOUS

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1. Passengers ..... Board
2. Door ..... Closed and Latched
3. Seats ..... Adjusted and Locked In Position
4. Seat Belts and Harnesses ..... Fasten/Adjust  
Check Inertia Reel



## Before Starting Engine

1. Pre-Flight and Passenger Brief .....Complete
2. Flight Authorisation .....Complete
3. Documentation And M/R ..... Completed And Signed
4. Fuel Selector..... Desired Tank (Left or Least)
5. Master Switch ..... On
6. Prime ..... 1-3 Seconds (Cold) None (Hot)
7. Electric Fuel Pump..... On
8. Fuel Pressure ..... Check Green
9. Electric Fuel Pump..... Off
10. Magnetos..... LH Selected On
11. Radios and Avionics ..... Off
12. Carburettor Heat .....Off – Cold
13. Mixture.....Rich
14. Throttle ..... 1/4 inch (Cold) 1/2 inch (Hot) Open
15. Parking Break ..... Set On

### **WARNING**

Do not pump throttles during or prior to the starting procedures.

### **CAUTION**

Maximum starter engage duty cycle is 30 seconds on, followed by a minimum of two minutes off.

16. Proceed with After Start Checks

## Flooded Engine

1. Throttle ..... Open Full
2. Master Switch ..... On
3. Electric Fuel Pump..... Off
4. Mixture..... ICO
5. Starter.....Engage
6. Mixture..... Advance
7. Throttle ..... Retard
8. Oil Pressure ..... Checked – Green
9. Proceed with After Start Checks

## Starting with External Power Source

1. Master Switch ..... Off
2. All Electrical Equipment ..... Off
3. Terminals.....Connect
4. External Power Plug .....Insert Into Fuselage

Proceed with Normal Start

5. Throttle ..... Lowest Possible RPM
6. External Power Plug .....Disconnect From Fuselage
7. Master Switch ..... On – Check Ammeter
8. Oil Pressure ..... Checked – Green

## After Start Checks

1. Starter.....Engage
2. Throttle .....Adjust for 1000 RPM or Less
3. Oil Pressure ..... Checked – Green
4. Magnetos.....LH and RH On – Checked
5. Avionics and Intercom..... On – Set – Checked
6. Alternator ..... Charging
7. Mixture..... Leaned
8. Throttle ..... 800 to 1200 RPM
9. Oil Pressure ..... Green
10. Lights ..... Taxi – On
11. Flaps..... Retracted

## Taxi Checks

1. Brakes .....Checked
2. Instruments..... AH, DI, TC and Compass Checked
3. Nav aids.....Checked

## Before Takeoff

1. Parking Break .....Set On
2. Fuel Selector..... Right or Fullest Tank
3. Primer ..... Locked
4. Master Switch ..... On
5. Magnetos..... Both
6. Flight Instruments .....Checked – Set
7. Radios, Nav aids and Avionics.....Checked – Set
8. Throttle Friction..... Set Firm
9. Mixture..... Full Rich

## NOTE

Do not proceed with engine run-ups unless the oil temperature and pressure are in the green operating range.

10. Throttle ..... 2000 RPM
11. Oil Temperature and Pressure ..... Checked – Green
12. Fuel Pressure ..... Checked – Green
13. Annunciator Panel..... Press-To-Test
14. Magnetos..... Check Drop  
..... 175 RPM maximum drop, within 50 RPM of each other
15. Vacuum .....5.0 in Hg ( $\pm 0.1$  in)
16. Alternator ..... Charging
17. Carburettor Heat ..... Check RPM Drop
18. Throttle ..... Idle – Checked > 600 RPM
19. Throttle ..... 1000 RPM
20. Air Conditioning (If Fitted) .....Checked
21. Electric Fuel Pump..... On
22. Controls ..... Full, Free and Correct
23. Flaps..... Set 0° or 25°
24. Trim .....Set for Takeoff
25. Seat Backs..... Erect
26. Belts and Harnesses..... Fastened and Adjusted
27. Empty Seats ..... Seat Belts – Snugly Fastened
28. Doors..... Closed and Latched
29. Departure Brief .....Complete
30. Takeoff Safety Brief .....Complete

## Line Up Checks

1. Pitot Heat ..... A/R
2. Instruments ..... Green / Aligned
3. Switches ..... Lights On / Pumps On
4. Transponder ..... ALT
5. Trim ..... Set
6. Altimeter ..... Within Tolerance

## Rolling Checks

1. Power ..... Static RPM
2. Engine Instruments ..... Green
3. Airspeed ..... Rising

## After Takeoff Checks

1. Gear ..... Fixed
2. Flaps ..... Retracted
3. Power ..... Full
4. Temperatures & Pressures ..... Green Range
5. Switches ..... Off
6. Mixture ..... Set Rich
7. Centre Line ..... Aligned

## Top of Climb

1. Fuel ..... Checked – Set
2. Mixtures ..... Leaned
3. QNH ..... Area QNH
4. DI / Compass ..... Aligned
5. Cowl Flaps ..... As Required
6. Aids / Audio ..... Source / Tuned / Identified / Tested
7. Radio ..... Set / Checked

## Top of Descent

1. Fuel.....Checked – Set
2. Mixtures ..... Leaned
3. QNH..... Area QNH
4. DI / Compass ..... Aligned
5. Cowl Flaps ..... As Required
6. Aids / Audio.....Source / Tuned / Identified / Tested
7. Radio .....Set / Checked

## Before Landing Checks

1. Brakes .....Park Brake Off/Check Pressure
2. Undercarriage ..... Fixed Down
3. Mixture.....Rich
4. Fuel.....On – Sufficient
5. Instruments ..... Green/Aligned
6. Switches .....Lights On / Pump On
7. Hatches & Harnesses .....Secure
8. Pilot Activated Lighting..... AD Lighting Considered

## Final Checks

1. Pitch..... Fixed
2. Undercarriage ..... Fixed
3. Flaps.....Down
4. Carburettor Heat ..... Cold
5. Clearance ..... Obtained
6. Windsock .....Checked

## After Landing Checks

1. Electric Fuel Pump..... Off
2. Transponder ..... Standby
3. Mixture..... Leaned
4. Strokes and Landing Light ..... Off
5. Taxi Light ..... On
6. Flaps..... Retracted
7. Trim ..... Neutral

## Shutdown Checks

1. Electric Fuel Pump..... Off
2. Radios and Avionics ..... Off
3. Throttle ..... 1000 RPM
4. Magnetos..... Checked
5. Throttle ..... Full Aft
6. Mixture..... ICO
7. Magnetos..... Off
8. Master Switch ..... Off

## Securing Aeroplane

1. Control Wheel.....Secured
2. Throttle Lock..... Set
3. Flaps..... Retracted
4. Documentation..... Complete
5. Wheel Chocks..... In Place
6. Tie Downs.....Secure
7. Covers .....Secure





# Emergency Procedures

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# Engine Emergencies

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## ENGINE FIRE DURING START

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1. Starter..... Continue To Crank
2. Mixture..... ICO
3. Throttle ..... Open
4. Electric Fuel Pump..... Off
5. Fuel Selector..... Off

Abandon if fire continues

---

## ENGINE FIRE (IN FLIGHT)

---

1. Source of Fire ..... Check

### Electrical Fire

1. Master Switch ..... Off
2. Air Vents..... Open
3. Cabin Heat..... Off
4. Land as soon as practical

### Engine Fire

1. Fuel Selector..... Off
2. Throttle ..... Closed
3. Mixture..... ICO
4. Electric Fuel Pump..... Checked – Off
5. Heater and Defroster ..... Off
6. Proceed with power off landing procedure.

# Engine Power Loss During Takeoff

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## SUFFICIENT RUNWAY REMAINING

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1. Nose ..... Lower
2. Flaps..... Full
3. Land Straight Ahead
4. Brakes ..... Full with Increasing Control Back Pressure

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## INSUFFICIENT RUNWAY REMAINING

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1. Nose ..... Lower to Glide Speed (76 knots)
2. Pick landing area 30°either side of the nose
3. Flaps..... As Required
4. Land in the selected field

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## SUFFICIENT ALTITUDE TO ATTEMPT RESTART

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1. Airspeed ..... Maintain Glide Speed (76 knots)
2. Fuel Selector..... Switch To Tank Containing Fuel
3. Fuel Pump ..... On
4. Mixture..... Rich
5. Carburettor Heat ..... On
6. Engine Gauges..... Check for Indication of Cause of Power Loss

## 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)
6. Wing Flaps..... Up
7. Control Wheel.....As Required to Smoothly  
Regain Level Flight

## Loss of Oil Pressure / High Oil Temperature

1. Land as soon as possible and investigate
2. Prepare for power off landing

## Loss of Fuel Pressure

1. Electric Fuel Pump..... On
2. Fuel Selector.....Check on Fullest Tank

## Engine Failure In Flight

1. Fuel Selector..... Switch to Tank Containing Fuel
2. Electric Fuel Pump..... On
3. Mixture.....Rich
4. Carburettor Heat .....On – Hot
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 confirm that it is on a tank containing fuel.

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## IF POWER IS RESTORED

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1. Carburettor Heat ..... Off
2. Electric Fuel Pump ..... Off

*If power is not restored prepare for power off landing and trim 76 KIAS*

---

## POWER OFF LANDING

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1. Fuel Selector ..... Off
2. Mixture ..... ICO
3. Magnetos ..... Off
4. Master Switch ..... Off
5. Seatbelts and Harnesses ..... Secured Tightly

## Abnormal Procedures

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# Electrical Abnormalities

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## SUSPECTED ELECTRICAL FAILURE

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ALT Annunciator Light Illuminated:

1. Ammeter ..... Check to Verify Inoperative Alternator

If Ammeter Shows Zero:

2. ALT Switch..... Off
3. Reduce Electrical Loads to a Minimum
4. ALT Circuit Breaker..... Check and Reset as Required
5. ALT Switch..... On

If Power Not Restored:

6. ALT Switch..... Off
7. If alternator output cannot be restored, reduce electrical load and land as soon as practical.

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## ELECTRICAL OVERLOAD (ALT >20 AMPS ABOVE KNOWN ELECTRICAL LOAD)

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1. ALT Switch..... On
2. BATT Switch..... Off

If Alternator Loads are Reduced:

1. Electrical Loads ..... Reduced to Minimum
2. Land as soon as practical

If Alternator Loads are Not Reduced:

1. ALT Switch..... Off
2. BATT Switch..... As Required

## Open Door

1. Airspeed ..... Slow to 87 KIAS
2. Cabin Vents ..... Closed
3. Storm Window ..... Open
4. If upper latch is open..... Latch
5. If side latch is open ..... Open Top Latch, Push Door Further Open, Close Rapidly, Move Latch Handle to Latched Position
6. If both latches are open..... Latch Side then Latch Upper

## Engine Abnormalities

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### ENGINE ROUGHNESS

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1. Carburettor Heat ..... On – Hot

If Roughness Continues for 1 Minute:

2. Carburettor Heat ..... Off – Cold
3. Mixture..... Adjust for Max Smoothness
4. Electrical Fuel Pump ..... On
5. Fuel Selector..... Switch Tanks
6. Engine Gauges ..... Check – Green
7. Magneto Switches ..... Left then Right, then Both

If operation is satisfactory on either magneto, then continue on that magneto at reduced power and full rich mixture to closest airport.

8. Prepare for Power Off Landing

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### CARBURETTOR ICING

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1. Carburettor Heat ..... On – Hot
2. Mixture..... Adjust for Max Smoothness

## Supplemental Information

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## **PASSENGER BRIEF**

- No smoking in aircraft
- Proper use and adjustment of seat belts
- Location and proper operation of emergency exits
- Location of life jackets, first aid kits and fire extinguishers, and if required, survival kits and life rafts.
- Requirement of a passenger occupying a control seat, not to interfere with the controls during the flight
- Operation of ventilation system
- Proper stowage of passengers' carry on items during critical phases of flight
- Seat backs must be upright for takeoff and landing
- Mobile phones and electronic devices must be off at all times

## **TAKEOFF SAFETY BRIEF**

- If there is an engine failure, fire or abnormality whilst on the runway I will close the throttle and brake as required.
- If there is an engine failure or major abnormality shortly after take-off with sufficient runway or overrun remaining, I will lower the nose, select full flap, land and brake as required
- If the engine fails with insufficient runway or overrun, I will lower the nose, maintain (...) knots (best glide speed), select a suitable field 30 degrees either side of the nose, extend flaps as required and land.
- I will only turn back to the runway if I am at 1000 feet AGL or on the downwind leg

## **DEPARTURE AND APPROACH**

- Charts
- Terrain
- Weather
- Operational Considerations
- Any additional items you deem are threats

## SAMPLE PASSENGER BRIEF

“Welcome aboard your flight, my name is \_\_\_\_\_ your pilot. Today you’ll be flying in a \_\_\_\_\_.

Our airplane has \_\_\_\_\_ doors. You can close the door by \_\_\_\_\_ if you need to open the door, such as in the unlikely event of an emergency, you can open the door by \_\_\_\_\_. To adjust your seat, there will be a lever underneath the seat.

Each seat in the airplane is equipped with an adjustable seatbelt. Fasten your seatbelt by inserting the clasp into the buckle. Pull the shoulder harness over your shoulder and clip it on to the clasp. You can adjust the seatbelt at any time by pulling the strap. You can undo your seatbelt by lifting the flap. Please ensure that you wear your seatbelt throughout the flight. Please ensure that all bags or loose items are either placed on the rear seat or in the baggage compartment and secured.

You can adjust the Ventilation Outlets and Controls by \_\_\_\_\_.

Please do not touch any part of the dashboard or controls and please keep your feet away from the pedals.

Please note that smoking on board the airplane is not permitted at any time.

In the unlikely event of an emergency, please exit the airplane and leave any luggage behind. We will meet at the rear of the airplane.”

Where applicable – show use:

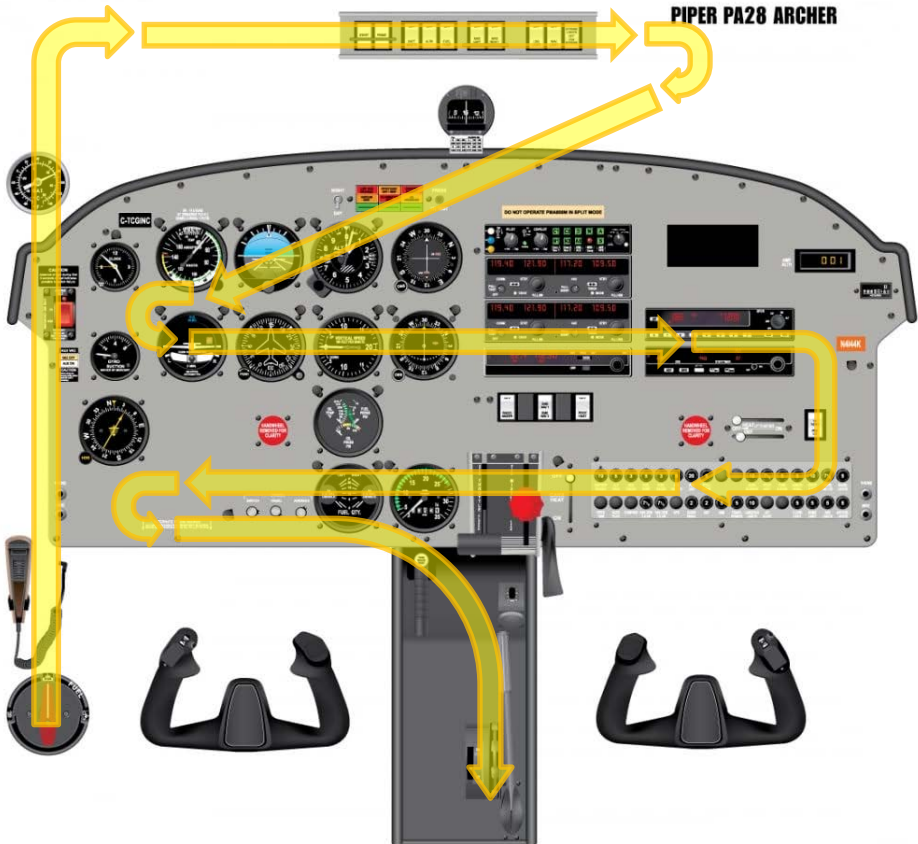
- Lift Vest
- Lift Raft
- ELT
- Oxygen

“Our destination for today’s flight is \_\_\_\_\_ and our Estimated Time of Arrival is \_\_\_\_\_. The weather for our flight today is expected to be \_\_\_\_\_.

Please sit back, relax and enjoy your flight.”

# Standard Flow Procedure

Below is an illustration of the standardised flow employed for *do and check* operations.



Abnormal and emergency procedures are conducted as a *check and do* system.

Engine / Cruise Performance for Non-ISA OAT* RPM for Constant 55% Power Fuel Flow: Best Economy Mixture, 8.2 GPH					
Pressure Altitude Feet	Indicated Outside Air Temperature			Engine Speed RPM	True Air Speed Knots **
	°C	°C	°F		
Sea Level	ISA-15	0	32	2245	105
	ISA	15	59	2265	
	ISA +10	25	77	2275	
	ISA +20	35	95	2285	
	ISA +30	45	113	2295	
2000	ISA -15	-4	25	2265	106
	ISA	11	52	2280	
	ISA +10	21	70	2295	
	ISA +20	31	88	2305	
	ISA +30	41	106	2315	
4000	ISA -15	-8	18	2285	106
	ISA	7	45	2300	
	ISA +10	17	63	2315	
	ISA +20	27	81	2325	
	ISA +30	37	99	2335	
6000	ISA -15	-12	10	2305	107
	ISA	3	37	2320	
	ISA +10	13	55	2330	
	ISA +20	23	73	2345	
	ISA +30	33	91	2355	
8000	ISA -15	-16	3	2320	107
	ISA	-1	30	2340	
	ISA +10	9	48	2350	
	ISA +17.5	16.5	62	2360	
9000	ISA -15	-18	0	2330	107
	ISA	-3	27	2350	
	ISA +8.5	5.5	42	2360	
10000	ISA -15	-20	-4	2340	107
	ISA	-5	23	2360	
NOTE: * Aircraft weight 2550 Lbs., Wheel pants and strut fairings installed ** Subtract 3 KTAS if wheel pants are removed.					

ENGINE/CRUISE PERFORMANCE (55%)

Figure 5-20



**SECTION 5  
PERFORMANCE**

**PA-28-181, ARCHER III**

**Engine / Cruise Performance for Non-ISA OAT\*  
RPM for Constant 65% Power  
Fuel Flow: Best Economy Mixture, 9.5 GPH**

Pressure Altitude Feet	Indicated Outside Air Temperature			Engine Speed RPM	True Air Speed Knots **
	°C	°C	°F		
Sea Level	ISA-15	0	32	2385	113
	ISA	15	59	2405	
	ISA +10	25	77	2415	
	ISA +20	35	95	2430	
	ISA +30	45	113	2440	
2000	ISA -15	-4	25	2405	114
	ISA	11	52	2425	
	ISA +10	21	70	2440	
	ISA +20	31	88	2450	
	ISA +30	41	106	2465	
4000	ISA -15	-8	18	2430	115
	ISA	7	45	2450	
	ISA +10	17	63	2460	
	ISA +20	27	81	2475	
	ISA +30	37	99	2485	
6000	ISA -15	-12	10	2450	116
	ISA	3	37	2470	
	ISA +10	13	55	2485	
	ISA +20	23	73	2495	
	ISA +30	33	91	2510	
8000	ISA -15	-16	3	2475	117
	ISA	-1	30	2495	
	ISA +10	9	48	2505	
	ISA +17.5	16.5	62	2515	
9000	ISA -15	-18	0	2485	117
	ISA	-3	27	2505	
	ISA +8.5	5.5	42	2515	
10000	ISA -15	-20	-4	2495	118
	ISA	-5	23	2515	

NOTE: \* Aircraft weight 2550 Lbs., Wheel pants and strut fairings installed  
 \*\* Subtract 3 KTAS if wheel pants are removed.

**ENGINE/CRUISE PERFORMANCE (65%)**

Figure 5-20a

Engine / Cruise Performance for Non-ISA OAT*					
RPM for Constant 75% Power					
Fuel Flow: Best Economy Mixture, 11.0 GPH					
Pressure Altitude Feet	Indicated Outside Air Temperature			Engine Speed RPM	True Air Speed Knots **
	°C	°C	°F		
Sea Level	ISA -15	0	32	2485	119
	ISA	15	59	2515	
	ISA +10	25	77	2535	
	ISA +20	35	95	2550	
	ISA +30	45	113	2565	
2000	ISA -15	-4	25	2520	121
	ISA	11	52	2545	
	ISA +10	21	70	2565	
	ISA +20	31	88	2580	
	ISA +30	41	106	2600	
3000	ISA -15	-6	21	2535	122
	ISA	9	48	2560	
	ISA +10	19	66	2580	
	ISA +20	29	84	2595	
	ISA +30	39	102	2615	
4000	ISA -15	-8	18	2550	123
	ISA	7	45	2575	
	ISA +10	17	63	2595	
	ISA +20	27	81	2610	
	ISA +30	37	99	2630	
5000	ISA -15	-10	14	2565	124
	ISA	5	41	2590	
	ISA +10	15	59	2610	
	ISA +20	25	77	2625	
	ISA +25	30	86	2635	
6000	ISA -15	-12	10	2580	125
	ISA	3	37	2605	
	ISA +10	13	55	2625	
	ISA +15	18	64	2635	
7000	ISA -15	-14	6.8	2595	126
	ISA	1	34	2625	
	ISA +7.5	8.5	47	2635	

NOTE: \* Aircraft weight 2550 Lbs., Wheel pants and strut fairings installed  
 \*\* Subtract 3 KTAS if wheel pants are removed.

ENGINE/CRUISE PERFORMANCE (75%)

Figure 5-20b

**B36 Piper PA28-181 Archer III Operating Data**

***The Aircraft will be operated in accordance with the Piper Pilot Operating Manual and the Aircraft Flight Manual.***

**B36.1 DESCRIPTION**

The aircraft is an all-metal, four-place, low-wing, single engine aeroplane equipped with fixed tricycle undercarriage and designed for general utility purposes. It is fitted with a Lycoming O-360-A4M engine rated at 180 HP at 2700 RPM.

**B36.2 AIRSPEEDS**

Never Exceed Speed	(V <sub>NE</sub> )	154	KIAS
Max. Structural Cruise	(V <sub>NO</sub> )	125	KIAS
Manoeuvring Speed	(V <sub>A</sub> )	113	KIAS
Max. Flap Extended	(V <sub>FE</sub> )	102	KIAS
	40° flap		
Max crosswind component take-off and landing		17	Kts

**B36.3 FUEL**

Approved 100 grade aviation fuel (green) or 100LL (Blue).  
Main Tanks – Total 189 litres / Usable 181 litres

**B36.4 OIL**

Capacity – 7.6 litres (8 Quarts)  
Grade – SAE 20W-50 Ashless dispersant aviation oil  
**Note** – Do not operate engine with less than 6 quarts.

**B36.5 WEIGHT AND BALANCE**

Max. Take-off Weight (MTOW)	1157	kg
Max. Landing Weight (MLW)	1157	Kg
Basic empty weight	Refer to AFM	

Aircraft is to be loaded in accordance with the Aircraft Flight Manual weight and balance chart.

**B36.6 NORMAL OPERATIONS**

Operations shall be conducted as per the AFM and Pilots Operating Handbook (POH), **except as follows:**

Cold Start                      Throttle closed for start  
   Prime 5 seconds  
   Once started set 1000 RPM

All other starts as per the Pilot Operating Handbook (POH)

Normal Take-off                Advance throttle to full power at normal rate and accelerate to 60  
   KIAS.  
   Static RPM at MSL in ISA conditions – 2340-2240RPM

All other take-off procedures as per the Pilot Operating Handbook (POH)

**B36.7 NORMAL POWER SETTINGS**

Climb                              Maintain full power for climb  
   RPM should not exceed 2700 RPM, it is generally around 2500 RPM  
   Fuel flow, only lean mixture to remove rough running at high altitude.  
   IAS 87 KIAS

Cruise                             Power is set as per power table Figure 5-20a in the POH to achieve  
   65% power.  
   Fuel Flow - Lean for best power, 100F rich of peak EGT  
   TAS – 115KTS

Descent                            RPM – 2500 RPM.  
   Fuel Flow – Rich Mixture  
   IAS – 122 KIAS

Normal Approach                Downwind      110 KTS      2300 RPM  
   Base            75 KTS       1500 RPM  
   Short Final   66 KTS       1500 RPM

All other approaches as per the POH

Taxiing                            As per pilots operating handbook.

Shut Down                        Magnetos are to be checked at 1000 RPM prior to shut down.  
   Temperatures and pressures are to be checked. Ensure the engine has  
   adequate time to cool down prior to shut down.

**B36.8 FUEL FLOW**

Airspeeds	TAS 115 Kts (including climb, cruise & descent)
Fuel Management	Block fuel flow of 42 litres per hour.
Holding	Power setting as per power setting table in the POH, 55% power, fuel flow 32 litres per hour, and the engine is leaned to peak EGT.
Fixed Reserve	32L
Taxi	All airports – 9 litres

**B36.9 CHECK LISTS**

Pilot check list are available in all aircraft.