



HANDLING NOTES

Piper Cub PA – 18 O-200A ZK-BQV

ENGINE START (Scan top right to bottom left)

1. Brakes - Parked
2. Master Switch - Check Spare Fuse, Main Fuse On
3. Nav Lights - On
4. Radio/Transponder - Off
5. Primer - Locked (2 pumps summer, 3 pumps winter, if engine cold)
6. Mixture - Rich
7. Fuel - On **lowest** tank
8. Carb Heat - Cold (off)
9. Ignition - On Both
10. Throttle - Set ¼ inch Open
11. Propellor - Clear
12. Stick Back
13. Press Starter
14. Tachometer - 1000 Rpm
15. Oil Pressure - Indicated within 30 secs (if not, shut down)
16. Magneto check - Left – Both - Right – Both - Off – Both
17. Radio - On
18. Transponder - SBY

ENGINE RUN-UP

1. Park Brakes - Not over loose objects, slipstream clear.
2. Throttle - 1000 RPM
3. Fuel - Change to **Fullest** tank
4. Engine Instruments - Operating in Green Range
5. Throttle - Stick Back, 1700 RPM
6. Carb Heat - check RPM drop
7. Magneto Check - Left – Both – Right – Both
 Max RPM drop 175,
 Max differential 50 RPM
8. Generator - Use nav. lights to check operation.
9. Throttle - Full closed, check idle 500 – 700 RPM
 - Set 1000 RPM



PRE-TAKEOFF CHECKS

- | | |
|-----------------------------|------------------------------|
| T – Trim | - Set for Takeoff |
| M – Mixture | - Rich, Carb Ht Cold |
| P – Pitch | - Fixed |
| F – Fuel | - Contents Sufficient |
| | - Cock on Fullest Tank |
| | - Primer Locked |
| F – Flaps | - Fixed |
| I – Ignition | - On both |
| | - Master Switch on Main |
| | - Fuses, Circuit Breakers |
| I – Instruments | - Checked left to right |
| H – Hatches, Harness | - Secure |
| C – Controls | - Full, Free & correct sense |
| T – Traffic | - Clear on finals, |
| | - Transponder ALT. |
| | - Spider Tracks WATCH On |

PRE LANDING CHECKS

- | | |
|-----------------------------|---|
| B – Brakes | - Check Pressure, Off |
| U – Undercarriage | - Fixed |
| M – Mixture | - Rich |
| P – Pitch | - Fixed |
| F – Fuel | - Contents Sufficient, Cock on Fullest Tank |
| H – Harness, Hatches | - Secure |

ATER LANDING CHECKS

Transponder – SBY, Spider Tracks – WATCH Off,

SHUTDOWN CHECKS

1. Idle - 1000 RPM
2. Radio, Transponder – Off
3. Magnetos - Left - Right - Off - Both
4. Mixture - Full Lean
5. Magneto Switch - Off
6. Spider Tracks - check Blue WATCH light OFF
7. Master Switch - Master Switch OFF.



GENERAL HANDLING

TAKEOFF

1. Normal

- Hold stick back during initial power application.
- As full power is reached, stick neutral, maintain direction, maintain level attitude until 50 mph, aircraft should be ready to lift off.
- Normal climb speed (best rate) 70 mph.

2. Short

- As above, but hold tail low, until just clear of ground.
- Lift off should occur at a very low IAS, hold in ground effect until best angle of climb speed is reached – 57 mph

CLIMB

Best Rate of Climb - 70 mph
Best Angle of Climb - 57 mph
Climb at full throttle.

CRUISE

Power setting of 2350 Rpm – 90 mph, 80 kts TAS

STALL SPEED

Power off – approx 44 mph

DESCENT

- Avoid power off descent due to rapid & uneven engine cooling which may cause cylinder head cracking.
- Power on descent at 2300 Rpm – approx 105 mph (500 fpm)
- Cruise descent at 2000 RPM – 90 mph (500 fpm)
- Normal glide speed - 70 mph



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APPROACH & LANDING

1. Normal

- 3 point landing is normal. Trim for 70 mph.
- Carb ht on during approach. Off at 500' AGL.
- Reduce speed through the flare, land 3 point attitude.
- Maintain direction with rudder.
- Brakes as required, but not abused.
- For powered approach maintain 60 mph

2. Short

- As above, approach at 63 mph, reducing to 55 mph crossing the fence (or at decision point).

3. Crosswind

- Approach and flare as normal.
- Hold into wind wing down with aileron, keep straight with rudder, land on into wind wheel.
- MAXIMUM DEMONSTRATED CROSS WIND COMPONENT – 8 KNOTS.
- If more than 8 knots X-wind component do wheeler landing.
- Wheeler landing recommended for maximum control on rollout. (Approach and land at 70 mph, depending on conditions.)

4. Specifications

- Engine - Continental O-200A
 - 100 hp @ 2750 Rpm
- Weights - MAUW - 1500 lbs / 681 kgs
 - Empty - 983 lbs / 446 kgs
 - Max baggage - 50 lbs / 22 kgs
- Fuel - Total capacity - 144 ltrs, Usable - 136 ltrs
 - Average consumption - 22 ltrs/hr
- Oil - Total capacity 6 quarts
 - Normal, 4 - 6 quarts, (4 quarts minimum).
 - Temperature – Normal 90 - 225^oF, Pressure 40 - 60
- Grade Shell W80 (bottles kept in cupboard in hangar)
- Dimensions - Length - 23 ft
 - Span - 35 ft.



Crosswind component calculation

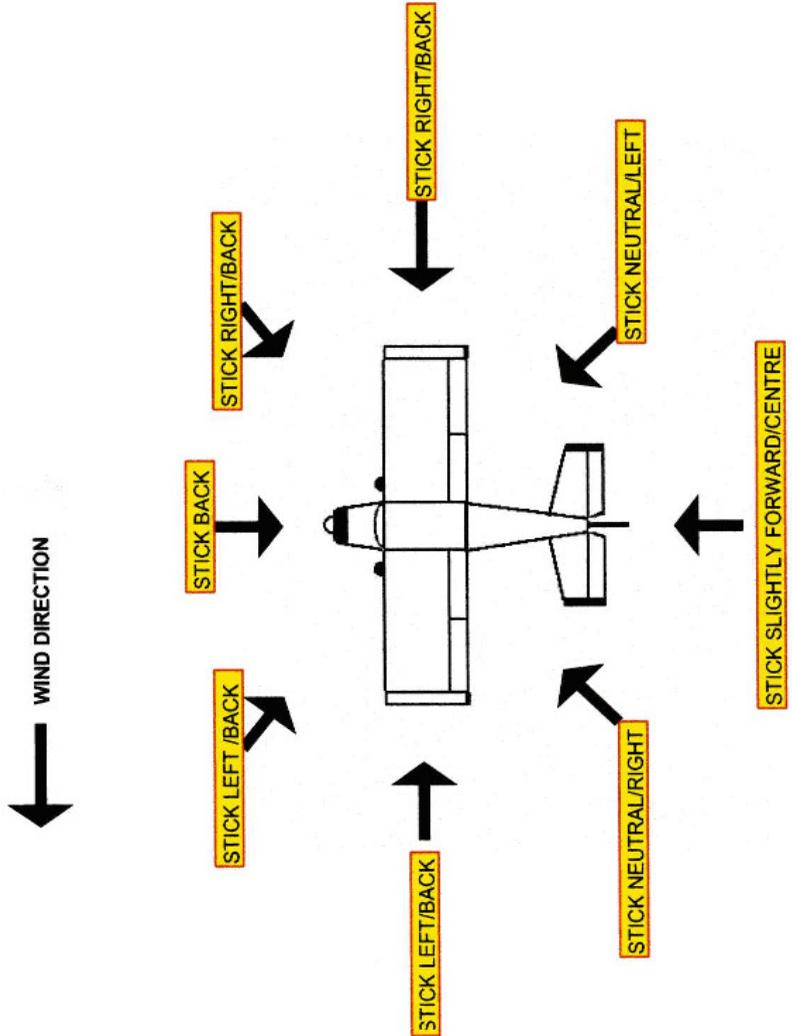
| | | | |
|-----------------|--------------------|------------------|-----------------|
| 10 ⁰ | off runway heading | /100 = .1 + .1 = | .2 x wind speed |
| 20 ⁰ | off runway heading | /100 = .2 + .1 = | .3 x wind speed |
| 30 ⁰ | off runway heading | /100 = .3 + .2 = | .5 x wind speed |
| 40 ⁰ | off runway heading | /100 = .4 + .2 = | .6 x wind speed |
| 50 ⁰ | off runway heading | /100 = .5 + .2 = | .7 x wind speed |
| 60 ⁰ | off runway heading | /100 = .6 + .2 = | .8 x wind speed |
| 70 ⁰ | off runway heading | /100 = .7 + .2 = | .9 x wind speed |
| 80 ⁰ | off runway heading | /100 = .8 + .2 = | 1 x wind speed |
| 90 ⁰ | off runway heading | /100 = .9 + .2 = | 1 x wind speed |

For example

Runway 03

Wind 060/20

30⁰ off runway heading /100 = .3 + .2 = .5 x 20 (wind speed) = 10
kts crosswind component.





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Spider Tracks Operation

- 1. Unit will power up when the aircraft Master Switch is turned on.**
- 2. Check Power On Light (Left Red), and Satellite fix light (Right, Amber when satellite acquired, Green after 1st position report).**
- 3. Once pre takeoff checks are complete and you are about to taxi onto the runway press the WATCH button. The Blue light will start flashing. (Do it when you turn the Transponder on ALT).**
- 4. During flight the unit will send a position report every 2 minutes. If no position reports are sent within 15 minutes, or if the power supply is interrupted, it will send an SOS report.**
- 5. After landing turn WATCH off. Check that the blue light stops flashing before you turn the Master Switch off.**
- 6. If you have shut the aircraft down, then realize that you have not turned WATCH off, you must text or phone us 021 063 7159. By this time an SOS message will have been sent and you need to advise that everything is in fact OK. If you are not within cellphone coverage, turn Master Switch on, wait until Spider Tracks acquires the satellite, turn WATCH on, wait until the blue light flashes, turn WATCH off, wait until the blue light stops flashing, turn the Master Switch off.**



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Operation of ZK-BQV / PA – 18 - 100 Aircraft

- 1. The aircraft is available to pilots authorised by the Owners.**
- 2. The aircraft is operated by Classic Cubs from Krippners Aerodrome, Ngahinapouri.**
- 3. All prospective pilots must be cleared by an Instructor designated by the owners.**
- 4. Aircraft must be operated within the guidelines of the Aircraft Operating Notes (NB RPM must not operate continuously in the yellow arc). All aircraft limitations as detailed in the Flight Manual must be observed.**
- 5. Aircraft is to be principally utilised for local operations, i.e. circuits/training/local (50 NM radius). Overnight or major X-country flights are to specifically authorised by the owners at the time of booking. Aircraft may only be operated solo from airports/airstrips designated in the current VFG. Off airport landings are to be dual only, unless specifically authorised by the owners on a case by case basis.**
- 6. Bookings for the aircraft are to be made on the flybook system, or with the owners. (021 063 7159 or 021 065 4538) No-one may take the aircraft without a booking.**
- 7. Prior to starting engines text 021 063 7159 advising intentions. (eg local flight over Hamilton City, Raglan - landing for 2 hours, Raglan-Port Waikato-Huntly-Krippners, etc.)**
- 8. Aircraft should be left clean and tidy at the end of each flight, with covers on and picketed unless otherwise advised. (Shell/BP Cards are in the Aircraft Logbook for use when away. Use only Avgas 100 Aviation fuel, Aeroshell W80 oil.**
- 9. All defects must be written on the Aircraft Tech Log.**



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10. All flight times are to be recorded in the flight log.
11. At the end of each flight text 021 063 7159 to notify flight time used, tacho time used, any defects, any landing fees incurred, fuel remaining.
12. Until further notice, the hire rate is \$195 (incl. GST) per hour plus landing fees and airway charges. Dual training is an additional \$30 per hour.
13. All accounts must be paid within 7 days of invoice. (A/C 06 0477 0133 687 00, ANZ Bank)
14. For the purposes of billing and record keeping a register of authorised pilots will be maintained by the owners.
15. In the event of an accident or damage, agree to be liable for repair and/or a \$1000 excess fee payable by the PIC. Insurance requirements for solo flight are any pilots approved by the owners. Insurance claims within the last 5 years, and prosecutions brought by NZCAA or other state equivalent must be notified.
16. Aircraft is available for ab-initio flying, taildragger and type ratings and BFRs by an approved instructor (in most cases only the owner will be approved.)
17. Pilots will supply their own headsets for intercomm/radio communications.