Air Cam CHECKLIST

AirCam Equipped with Clamar 2180 Amphibious Floats

START-UP

- ✓ Pre-flight complete
- ✓ Tie downs and chocks removed
- ✓ Note Hobbs time
- ✓ Rear seat occupant, remove and stow hat. Check shirt pockets to ensure they are empty.
- ✓ Avionics off
- ✓ Master (key) on
- ✓ Auxiliary fuel pumps on
- ✓ Clear props and blast area behind
- ✓ Apply brakes
- ✓ Advance throttle approximately 1"
- ✓ Begin cranking first engine
- ✓ Alternate starting left and right engines first
- ✓ If no start in 3 seconds begin tapping primer up to 6 times until engine starts. If no start, move to second engine and repeat. Do not crank more than 10 sec without giving the starter a break.
- ✓ Flooded engine starting procedure: Auxiliary fuel pump off. Open throttle to ¾ and crank till start up. Rapidly reduce power to 2,500 rpm upon start up. Maintain 2,500 rpm until excess fuel is consumed. Crank engine for a maximum of 10 seconds. Allow starter to cool down in between cranking cycles.
- ✓ Upon start up, check for oil pressure and voltage increase.
- ✓ No oil pressure in 5 seconds, shut down engine.
- ✓ Turn off Auxiliary fuel pumps after start up
- ✓ Warm up engine at 2,000 - 2,200 RPM until smooth
- ✓ Avionics master on
- ✓ Intercom check

ENGINE RUN-UP

- ✓ Clear behind
- ✓ Point into wind if possible
- ✓ Apply brakes (on land)
- ✓ Auxiliary fuel pumps off
- ✓ Left engine increase throttle to 3,800 RPM
- ✓ Check smooth operation at 3,800
- ✓ Ignition check – A & B 250 RPM max drop
- ✓ Check engine gauges o.k.
- ✓ Back to idle - 1,400-1,800 RPM and smooth
- ✓ Right engine – 3,800 RPM
- ✓ Ignition check – A & B 250 RPM max drop
- ✓ Check engine gauge
- ✓ Back to idle – 1,400 – 1,800 RPM and smooth

PRE TAKEOFF CHECKLIST – LAND

- ✓ Seat belts fastened
- ✓ Ensure all phones and loose gear secured
- ✓ Verify both fuel tanks – 1/3 minimum
- ✓ Flaps up for normal takeoff
- ✓ Trim set
- ✓ Auxiliary fuel pumps on left & right
- ✓ All mag switches (forward) on
- ✓ Verify green lights on gear indicator
- ✓ Altimeter set
- ✓ Radio to current frequency
- ✓ Strobes on
- ✓ Controls free & correct
- ✓ When canopy is installed, check all doors closed and properly latched and canopy closed and latched
- ✓ Lift-off at 43 mph IAS
- ✓ Normal Climb 60 mph IAS

PRE TAKEOFF CHECKLIST – WATER

- ✓ Seatbelts fastened
- ✓ Ensure all phones and loose gear secured
- ✓ Verify both fuel tanks – 1/4 minimum
- ✓ Gear up for water takeoff / two blue lights
- ✓ Flaps 25 degrees down for water take-off and landing
- ✓ Trim set
- ✓ Auxiliary fuel pumps on left & right
- ✓ All mag switches (forward) on
- ✓ Altimeter set
- ✓ Radio to current frequency
- ✓ Strobes on
- ✓ Controls free & correct
- ✓ When canopy is installed, check all doors closed and properly latched
- ✓ Lift off at 43 mph
- ✓ Normal climb 60 mph IAS

WATER LANDING

- ✓ Check wind and water condition (min 12" depth)
- ✓ Gear Up for water landing – Two blue lights – 4 straw gear indicators all up
- ✓ Aux fuel pumps on
- ✓ Flaps 25 degrees down (ASI in white arc below 70 mph)
- ✓ Approach speed 60 mph
- ✓ Touch down 40 – 50 mph IAS
- ✓ Reduce power to idle upon touch down

Note: *Use full flaps for rough water/confined area landings only. In this case remember to reduce flaps to 25 degrees for take-off. 25 Degrees of flap is verified when the inner trailing edge of the flap aligns with the wing trailing edge to aft fuselage sweep cable.*

LAND LANDING

- ✓ Gear down for land landing – check two green lights. Hold gear down control switch in the down position for 4 seconds after green lights come on. Check all four straw gear indicators down.
- ✓ Aux fuel pumps on
- ✓ Flaps up for normal land landings 60 – 65 mph. Higher speeds permissible in gusty conditions.
- ✓ Use Full flaps for short field landings 50 – 55 mph

Note: *If left or right fuel quantity indication is 1/8 or less avoid steep descents.*

EMERGENCY PROCEDURES

ENGINE FAILS TO SHUT DOWN WITH IGNITION SWITCHES MOVED TO THE OFF POSITION.

- ✓ Reduce throttle to idle
- ✓ Turn on Aux fuel pump and actuate primer to shut down engine. Hold primer on until engine floods. Shutdown will be rapid.

LANDING GEAR MALFUNCTION

- ✓ Landing gear fails in the full down position - Make a (land) runway landing.
- ✓ Landing gear fails in the fully up position - Make a water landing. (Water)
- ✓ One gear fails in the up position – Raise the gear and make a water landing. (Water) Always make sure the nose wheels are up for the water landing.
- ✓ One gear fails in the down position – Lower the other three gear and make a (land) runway landing.

Note: *in each case if pilot is uncertain gear is locked in the fully up or down position - touch down at the lowest possible speed using full flaps as wind conditions allow. Do not attempt a water landing if one or more gear may be down.*

PROP STRIKE IN FLIGHT

- ✓ If a prop strike occurs in flight, causing a high level of vibration, identify which prop has been damaged. Bring one engine to idle and the other one to full power. If the prop damage is causing vibration the powered-up engine will see an increase in the intensity and frequency of vibration. If altitude and single engine performance allow, shut down the engine that is vibrating and land as soon as possible. If not, maintain full power on the smooth engine and reduce power on the vibrating engine to the minimum level required to maintain flight. Find a safe place to land as soon as possible.

EMERGENCY IN FLIGHT INSPECTION OF DAMAGED PROPELLER

- ✓ Once identified and shut down - the damaged propeller may be visually inspected in flight to determine the severity of blade damage. When an AirCam engine is shut down in flight the prop will stop and one blade will be below the wing in view. With the ignition switches off the pilot may tap the starter on the dead engine turning the prop small amounts allowing the pilot to see each blade one blade at a time. Using this technique, the pilot may assess the damage and determine if restarting the engine with the damaged propeller is an option.

ENGINE FAILURE IN FLIGHT

- ✓ Both throttles full forward
- ✓ Maintain 55 - 60 mph indicated ASI
- ✓ Rudder as needed
- ✓ Both Aux fuel pumps on
- ✓ Identify the bad engine
- ✓ Verify – bad engine, point to the tach with low RPM and pull throttle to idle
- ✓ 5 degrees of bank into the good engine.
- ✓ Add 5 degrees of flap if additional climb performance is needed
- ✓ Gear up for minimal drag and for water landing. The bad engine will produce zero thrust at normal idle at 55 -60 mph IAS. Anything above normal idle will yield some thrust and help climb performance. If engine RPM drops below 2,000 in flight and does not respond to the aux electric fuel pump then shut it down to reduce drag.
- ✓ Shut Down – if necessary
- ✓ Land at the nearest safe location

PREFLIGHT CHECKLIST

1) Inspect floats and rigging for damage.
2) Verify all float compartments are free of water. Remove water as needed.
3) Close and secure all float compartment covers
4) Inspect landing gear and tires.
5) Sump left and right gascolators and fuel tank drains. (Total of four points)
6) Check pitot and static tubes under nose and remove covers if installed.
7) Standing on left float, left of the forward cockpit, turn on master and note indicated left and right fuel quantity.
8) Check battery voltage greater than 12V. If less than 12V charge battery.
9) Turn off master and check all engine ignition switches are off.
10) Move to left of rear seat and check ailerons and elevator for proper function with rear control stick.
11) If flying solo latch rear seatbelt harness.
12) Check baggage area for loose cargo and secure as needed.
13) Remove left fuel cap and verify fuel quantity matches the fuel gauge indication previously observed. Secure the fuel cap.
14) Inspect ELT antenna
15) Visually inspect left engine radiator, hoses and air filters.
16) Inspect the left wing root to wing center section gap-seal to insure it is properly secured.
17) Look back at tail section leading edges and upper horizontal stabilizer surfaces.
18) Climb down and walk around left wing, visually inspecting the wing leading edge, wing tip. Aileron, flap and wing struts.
19) Visually inspect left engine.
    a) Inspect propeller blades for damage.
    b) Inspect exhaust system for cracks and leaks and look for all 8 springs in place and safety wired.
    c) Look for signs of fluid leaks under the engine and on the ground and float below.
20) Inspect the aft fuselage and tail section.
21) Visually inspect the Elevator trim tab on the left elevator.
22) Check rudder for free movement and good stops.
23) Inspect right engine.
    a) Inspect propeller blades for damage.
    b) Inspect exhaust system for cracks and leaks and look for all 8 springs in place and safety wired.
    c) Look for signs of fluid leaks under the engine and on the ground and float below.
24) Walk around the right wing inspecting the flap, aileron, wing tip, wing leading edge and wing struts.
25) Climb up onto the right float and fuselage and make a visual check of the fuel quantity in the right fuel tank. Verify the fuel quantity matches the fuel gauge indication previously observed. Secure the fuel cap.
26) Visually inspect the right engine radiator, hoses and air filters.
27) Inspect the right-wing root to wing center section gap seal to assure it is properly secured.
28) Check front and rear seat positions for correct adjustment.
29) Note Hobbs time before start up.

BEFORE THE FIRST FLIGHT OF THE DAY

Engines:

✓ Use a ladder to check oil and coolant levels. Oil must be in the flat section of the dip stick. If oil is low burp engine and recheck oil level before adding oil. If oil is needed add Aeroshell SPORT PLUS 4. Do not add more than ½ liter of oil per engine without carefully rechecking the level.

✓ If coolant is needed top with a 50/50 mix of Dexcool and distilled water.

✓ Make certain oil and coolant caps are properly secured.

✓ Look over engine and check for fluid leaks.

✓ Check the propeller blades for damage. Pay attention to the leading edges.

✓ Check the exhaust for cracks and leaks.

✓ Check all 8 exhaust springs to be sure none are broken and all 8 are safety wired in place.

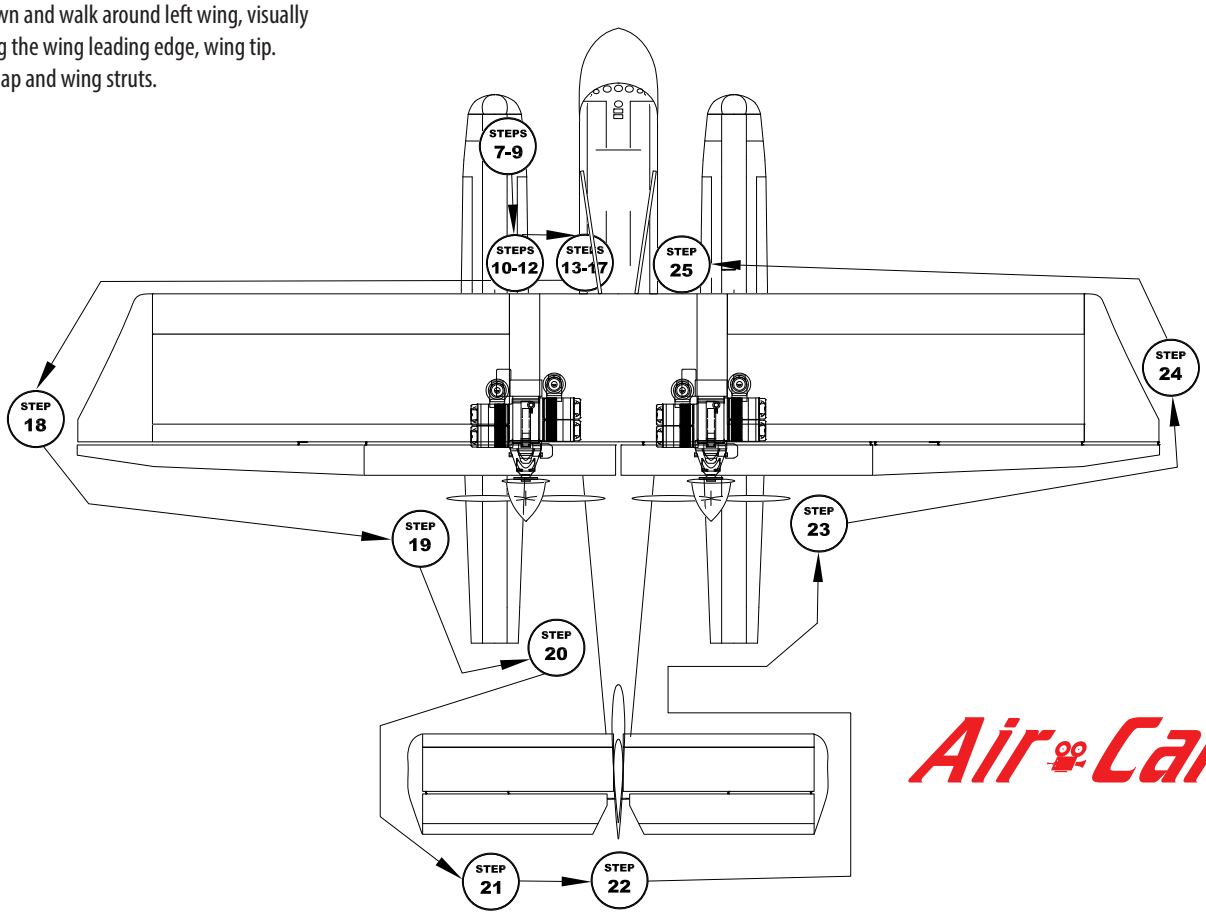
Tail:

✓ Inspect elevator trim tab hinges and actuating push rods for play and condition.

✓ Inspect horizontal stabilizer cables for tension and condition.

Floats:

✓ Check the condition of the tires and if the pressure looks low check it. Mains should be 50 – 55 psi and the nose wheels should be 30 psi. Add air as required.



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