

# Before Flying your Helicopter

Before each flight, check that all bolts and screws are tight. Simply flying your helicopter, will loosen any screws which are not threadlocked or secured with a lock nut.

**First Flights** For the beginner pilot, a training pod is strongly recommended to assist in learning to hover the helicopter with substantially reduced risk of crashing. These systems provide an on ground training capability to allow pilots to become familiar with the helicopter before actually leaving the ground.

## Starting Your Engine

**Fuel** 15-30% Helicopter fuel is recommended containing more oil. Use a fuel filter between the fuel gallon and the heli to remove any dirt that could stall the engine. Fuel the helicopter by removing the fuel line from the carburator and replace when finished.

**Needle Valve** Following the engine manufacturers instructions, turn the main needle valve until closed and open to the setting the instructions call for. Different engines will have different settings.

**Radio** Always turn the transmitter on first, then the helicopter & gyro and reverse when finished, turn off the heli & gyro first then the transmitter. If the radio acts erratically or intermittent, find the problem before starting the engine.

**Glow Plugs** Using a glow plug connector, remove the canopy or optionally use a remote glow plug connector to heat the glow plug. Warning!! glow plugs operate at 1.5V **\*\*not 12V.\*\***

**Engine** Before starting the engine, check the correct direction of rotation and make sure the electric starter is turning the same direction.

**Starting** Start the engine from low throttle with the trim centered. Holding the rotor head in one hand, angle the starter and press down slightly to engage the starting shaft into the fan. Start the electric starter until the engine starts. If the engine does not start recheck all previous points. The main blades will not turn until the engine RPM is above idle.

**Stopping** To stop the engine, with the throttle stick in the low position, move the trim all the way to the low position.

## If the Engine Does Not Start

**Q.** The engine does not turn easily with the starter.  
**A.** The starter battery may be too weak or the engine is flooded. For flooding, remove the glow plug and turn the engine over several times to clear the combustion chamber of fuel and retry.

**Q.** The engine rotates and tries to start but doesn't.  
**A.** The glow plug may be getting old. The glow plug batteries are weak. The starter may be turning the wrong direction.

**Q.** The engine just does not start.  
**A.** The glow plug may be burned out. Fuel may not be getting to the engine, check for a clogged fuel line, dirt in the carburator or the main needle needs to be opened out slightly.

**Q.** The engine starts but immediately stops.  
**A.** There is a clog in the fuel line, the carburator is not open enough at idle- open the throttle trim by 1-2 clicks. Helicopter engines have a low speed needle which is factory set, beginners should not adjust it!!

## Adjusting the Blade Tracking

**Pitch** In steps 41-44 you setup the pitch range using a pitch gauge and setting the pushrods on the servo horns at specific distances. Once the helicopter is flying the pitch setting have to be fine tuned. Using appropriate training gear, increase the throttle until just before the helicopter lifts off and sight the rotor disk from 15' back. If there appears to be 2 rotor disks then adjust Pushrod C until only one disk appears. Using colored tape mark one blade so you can adjust the correct blade.

