

## Saito Engine Tips by Devin Allen

Saito's run best on a 15% Nitro blend with 17 to 20 % oil content fuel, Morgan's Cool Power is a good choice because it uses full synthetic oil. It is not recommended to run Castor Oil in any four stroke because of the very hot exhaust will cause carbon buildup and sticky exhaust valves

When adjusting the needles adjust the high speed needle to achieve the peak rpm and then open the needle until the peak RPM comes down 500 rpms, adjust the low speed needle so that when you pinch the fuel line the engine rpm only increases very slightly while achieving a crisp acceleration from low to full throttle

The best glow plugs for Saito's is the Saito SS Glow Plug, Hangar 9 4 Cycle Super Plug, OS F, and Enya 3 glow plugs

When replacing the bearings on Saito's remove both dust shields on the rear bearing and the rear shield on the front bearing, doing this allows the maximum amount of lubricant to get to the bearings

When it comes time to work on your Saito make sure you use a very good Allen Wrench set and a very good slotted screw driver. I use a Allen Wrench Set from Tekton and a set of Wiha T-handle Allen Wrenches. For the screw driver I use the Turnigy V2 Series 3mm 4mm 5mm Flathead Screwdriver Set the 3 mm fits perfect in the rocker pin and I have never stripped one since I got this set.

Speaking of the rocker pins they only need to be finger tight whatever you do never ever tighten them more than that or you will never get them out the next time you work on the engine, don't worry about them backing out the valve covers are designed to hold them in place. The rest of the screws also don't need to be gorilla torqued if you over torque these screws you take the risk of stripping them when you go to take them out, and never use any kind of thread lock on any of the screws.

When setting the valves on a new engine set them a little loose using the .1 mm feeler gauge that comes with Saito's, I have never seen a Saito Valve get loose they always get tight after extended running times.

Props it is best to run a prop that runs in the mid 8000 to mid 9000 rpm range I am listing the sizes I use on my engines

Saito FA 50/56 Master Airscrew 12x6

Saito FA 62 Master Airscrew 12x8

Saito FA 65 Master Airscrew 13x6

Saito FA 72 Master Airscrew 13x6

Saito FA 82 Master Airscrew 13x6 or 13x8

Saito FA 91 Master Airscrew 13x8

## Troubleshooting Tips

If the engine sputters and then starts running backwards the mixture is too lean open the high speed needle 4 turns and tune it to achieve the peak rpm described above

### Engine won't idle

If it won't idle for more than a few seconds without dying turn the low speed screw in  $1/8^{\text{th}}$  of a turn at a time and test and keep going until you get a reliable idle with crisp acceleration, any Saito should be able to idle reliably at 2500 rpms or lower

If it idles and then revs up and dies the low speed is too lean open the low speed needle  $1/8^{\text{th}}$  of a turn and keep testing

Symptoms of a bad glow plug is if you pull the igniter off the glow plug and the engine slows down significantly the glow plug is going bad

Symptoms of bad bearings other than a gritty feeling bearings also cause erratic running like unable to set a reliable idle or engine stops in mid-flight

Symptoms of worn piston ring are lower power than usual and unable to hold a normal idle