

# **Stateline Karts 2019 Jr. Squirt 79cc Predator Class Rules**

This class is intended as a somewhat cost effective kid class for 4-6 year old racers. The class will run the 79cc Predator engine out of the box allowing only the modifications found below. No Exceptions!!

Below the rules are some clutch and throttle setup guidelines to set up the engine for the kart.

- Approved Engines: OHV (Overhead Valve) 79cc (3hp) Harbor Freight Predator Engine
- Class:  
Squirt (4-6 yrs.) 200# (full rear bumper required)

\*Note that the track has the right to make exceptions to what class a junior driver may race in based on age and or experience for the safety of that driver as well as other competitors.

- Engine Components: Engine must be stock 79cc Predator engine with factory governor intact and functioning. Governor may be adjusted to 4000 rpm. +/- 200 rpm at full throttle no load. This will be checked and finalized by track official upon registration.
  - The engine must be run out of the box.
  - Low oil sensor may be unplugged or removed and block plugged if present.
  - Aftermarket filter adapter and filter may be used (to clear RR tire)
  - You must run the factory gas tank
  - Chain guard mandatory and may run a heat shield
  - Gas cap may be vented
- Flywheel and Ignition: Must use stock flywheel, ignition coil, plug wire, and resistor spark plug boot. Spark plug is non tech. The engine must have a key way as installed by factory on the flywheel.
- Fuel: 87 octane only. No additives and No Methanol
- Carburetor: Carb MUST REMAIN STOCK with exception of a .020" Primary jet and .031" Main jet due to the aftermarket filter.
- Cylinder head: Must be OEM 79cc Predator casting only. Intake and exhaust ports must remain as factory produced, porting or deburring not permitted. Transition edge from port runner to bowl area must retain defined edge. Head gasket surface must remain stock, no copper or aluminum gaskets.
- Valve train: Stock valves only, must use stock pushrods, rocker arms, retainers and valve springs, no alterations and or aftermarket valve train components allowed. Camshaft must remain stock.
- Crank Rod and piston must be as factory without any modifications, stock piston rings only.
- Starter: Recoil pull start only. Pull starter may be rotated for better cranking angle and have better quality replacement rope installed.
- Headers and mufflers: Must retain factory muffler. No aftermarket headers or mufflers. The factory muffler may be modified between flange and muffler with a sleeve of pipe 1" O.D. x .095" wall roughly 1.5" long welded all around to raise muffler for spark plug clearance but is not mandatory. (see below for photo of acceptable modification)
- Clutch: All squirts must run a drum clutch only. The clutch is open to any drum clutch 5/8" or 3/4" bore hub. The 3/4" hub clutch will require a clutch adapter.

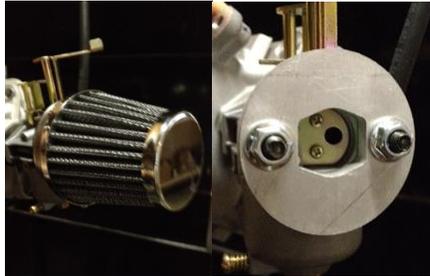
Please note that these rules are general guidelines to our Squirt class structure . If you are chosen for tech please do so without confrontation. If any confrontation is given you will forfeit your finish and points for the day. All tech sessions will be held at end of the race day. If chosen, please take kart directly to the designated tech area where there will be a track official to watch your equipment. No work may be performed on kart at this time. It is asked that you drain your engine oil at this location and remove engine from kart if it passes visual inspection of clutch/pipe firsthand. Proper tech will resume from this point. Driver/owner of kart being teched and tech official only permitted in the tech area during tech sessions. It is not the responsibility of tech inspector to reassemble engine post tech. If you are deemed illegal you will be given “one week” to correct any illegal findings. First offence you will forfeit your finish and points for the day. Second offense forfeits finish and points and will not be permitted to race next scheduled race day. Third offense to be determined by track owner. Any issues that are questionable will be discussed by the tech inspector and track owner and decision will be made in the best interest of both parties. If you have any questions or concerns about the above rules please contact Matt Field 814-490-4465 after 6:00pm or Mark Matthews 814-664-3760.

## Engine Setup Guidelines:

Allowed aftermarket parts:

Air filter adapter, Air filter and jets can be found at the following link: Recommended jet is .024" primary and .031" main.

<https://affordablegokarts.com/collections/79cc-performance-parts>



Clutch Adapter:

5/8" x 3/4" x 2" pulley adapter sleeve can be found on ebay, amazon, and many other places.

\*note this will not work with a hillard or any other type clutch with integrated key as you will need a 3/16" x 1/4" keyway to use the adapter sleeve.

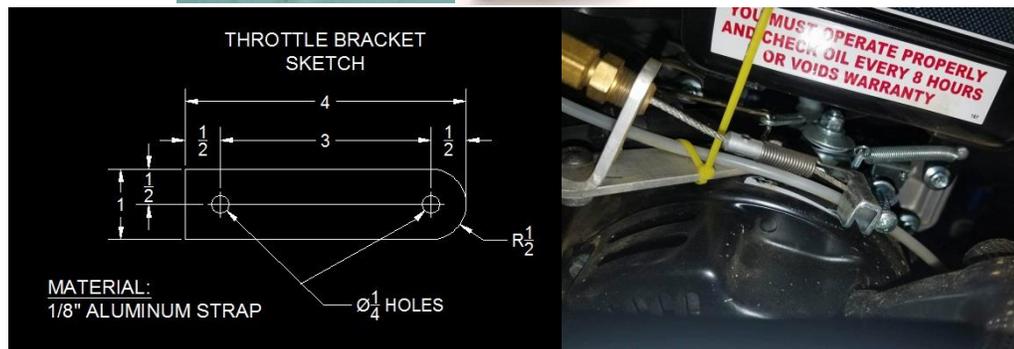
Hilliard clutch makes the following clutch that is a direct bolt on without needing an adapter. You'd need to replace the driver with a 15 tooth driver. (see below)

Hilliard Extreme Duty Centrifugal Clutch. 5/8" bore, 12 tooth, 35 chain Part #: H5835 can be purchased from site below.

<https://www.mfgsupply.com/gomini/gominiclutch/gominiclutchcent/gominiclutchcenthilliard.html>

The best clutch option is a Max Torque SS1558BLUE. This clutch must be ordered over the phone from <https://cometkartsales.com> Ask for Rex on the phone and he knows the exact setup.

Briggs raptor throttle kit: Most kart sites and or shops have these in stock





Approved Muffler Modification

