

## Maxxis Midwest Wing Outlaw

All Wing classes will follow Millbridge Speedway chassis rules - [www.millbridgespeedway.com](http://www.millbridgespeedway.com)

### Kart Rules

Wing, hood, and tailpiece are mandatory. No front wing allowed. Bodies can be any material except wood. No sharp or protruding objects anywhere on the kart. Wing size rules. Center 32" x 35", left board 40" x 20", right board 40" x 14". Must be within +/- 2". Measurements include any lip on the side panels. Only one bend allowed. Lip cannot exceed 1". Left side sail panels are allowed. No right side sail panels. Roll cage must be attached in at least 4 places with grade 5 bolts. No frontend cow catchers. Traction control or ratcheting rear hubs are not permitted. Must be a live rear axle. Minimum wheelbase of 39.75".

### Safety

Aluminum high back seats are mandatory. The top of the seat should be at the middle of the back of the driver's head. All karts must have shoulder harnesses and seat belts. Shoulder harnesses must be mounted to restrict forward body motion. Shoulder and seat belts may be mounted to the seat if originally designed and intended by the manufacture. Otherwise they need to be mounted to the frame. Approved neck braces and arm restraints are mandatory. SA 2010 or newer full face helmet required. All weight must be painted white with kart number on it. Weight bolts must comply with NKA rules.

Shoe or open clutch

Will utilize Maxxis tires. A set consisting of 1-4.50, 2-6.00, 1-9.00 (no additional chemicals allowed)

Beginner Box Stock, ages 5-9, Big Pipe, .425 ARC Green Plate, 265 lb

Will follow 2019 NKA Clone engines rules

Box Stock, ages 9-14, Unrestricted BP Clone, 350 lb

### *The rules outlined below are for the BP Clone only*

#### Approved Engines

OHV engines with a maximum displacement of 200cc.

Description: Single cylinder, 2-valve overhead 4-cycle engine. No aftermarket coatings of any type are permitted on any part of the engine (exception Blower Housing and Shrouds).

#### Exhaust System

Maximum length 24 inches-measured through inside of pipe w/ .250 wide tape measure. Remove silencer and pull tape measure tight. If any portion of the length of pipe is below 24 inches, pipe is legal. Complete pipe and silencer cannot extend past the rear bumper and must be contained inside the kart frame. Height must be 10 inches max from the top of the header to the header flange. Header wrap is required from the flange to the silencer. Header must be braced. Both header and muffler must be tight at the end of the race. Ceramic coatings on pipe only. Exhaust studs may be replaced with regular threaded bolts of equal diameter and must be safety wired. Silencer must be the RLV B-91XL with model number 4104. Must have all baffle plates on the inside and be as supplied from the manufacture. No

coatings allowed. Outside baffle holes .1285" ID max. Internal baffle holes .1285" ID max. Silencer must be held on by clamped on brace. It cannot be welded and must be able to be removed for inspection. Silencer cannot be parallel to the ground. Must point towards the rear bumper and not be more than 9" above the mounting surface of the block. No loop pipes. Gasket and/or silicone is allowed to seal the header pipe to the head. Maximum header flange thickness is .510".

## **Fuel**

87 Octane pump gas only. All fuel is subject to comparison to a standard set by the tech official. Must have floor mounted fuel tank.

## **Fuel Pump**

Any pulse type fuel pump is permitted. May be pulsed off of the crankcase, side cover or valve cover.

## **Carburetor**

Stock Huayi or Ruixing carb only. Carb bore finish non-tech. No extra holes drilled in carburetor anywhere. No sanding or machining or carb mounting surfaces. Venturi .625" No-Go. Rear carb bore .751" No-Go. Throttle Shaft .115" minimum. Butterfly .037" minimum. All jets, air bleeds and emulsion tube are non-tech. Choke assembly may be removed. Air filter adapter 1.375" max. No ram air. Any filter that is open on the end must be covered with tape or an outerwear that will not allow any air to enter the end of the filter. Must use stock configuration intake gasket. Black phenolic spacer must be run between the carburetor and head. Plate hole and finish of hole are non-tech. Fuel bleed-off slot must remain unaltered. Minimum .257" thickness. Must remain flat and maintain thickness at all points.

## **Block & side cover repair/modification**

Welding or epoxy repair is permitted to the block and side cover. Repair may not be a functional modification (performance enhancing) of the OEM part. Deburring of excessive flash is allowed but not to alter OEM specification or appearance. Deburring to the eyebrow area of intake or exhaust port is prohibited.

## **Block**

Stock Block, as cast and produced with no alterations or modifications other than those specifically permitted. Decking the block is permitted, no pop-up of the piston is allowed. All bolt bosses in block may be drilled and tapped for repairs or other uses. Additional side cover gaskets as required for crankshaft thrust are permitted. All parts associated with the governor and the low oil sensor may be removed, plugging any associated holes. Side cover bolts are non-tech.

## **Connecting Rod**

Billet aluminum rods required, with or without bearings inserts. Titanium rods are prohibited. Rod length is non-tech.

## **Piston**

Piston must be of three ring design. Must be dished piston, no flat tops allowed. The piston is not allowed to be any higher than the deck at TDC (no piston pop out). No machining of piston

allowed. Aftermarket pistons up to .035" over are allowed. Stock bore is 2.685" and may be bored to 2.718".

### **Piston Rings**

All three things must be intact and functional. Top ring must be chrome faced. Rings must appear stock.

### **Crankshaft**

Stock OEM crankshaft with a stroke length of 2.126" (+/- .007"). No alterations allowed. Stock timing gear must remain in factory location. Crankshaft journal diameter of 1.180"-1.168".

### **Camshaft**

Stock appearing camshaft cores only with the ez-spin assembly unaltered and in stock condition. Duration check taken from pushrod. Intake duration of 248 degrees at .050 lift/107 degrees at .200 lift. Exhaust duration of 247 degrees at .050 lift/116 degrees at .200 lift. Max lift at the valve retainers, Intake .238" and exhaust .242" taken on valve spring retainer with zero lash. +/- 2 degrees to allow for gauge variance.

### **Ignition System**

Ignition coil must be OEM. Ignition timing is non-tech.

### **Flywheel**

Flywheel key may be altered and is non-tech, key is not required. Must have a minimum weight of 3.3 pounds. No modifications of any kind to the flywheel. Handheld electric starter may be used but camshaft must have compression release. Current approved flywheels are:

Raceseng RSP-13-075 & 077 Rev Wheel NF-S1, ARC-6619 flywheel, ARC-6618 flywheel, ARC-6689 flywheel, Dyno PVL 211-900 flywheel, Ambush Flywheel Part Number 1116, King Wheel Billet Steel DJ-168F-16200-A, and King Billet Aluminum Slipstream Flywheel

### **Cylinder Head**

Only the JT-4 bolt heads and TG-1 heads will be allowed. No sanding or machining of carburetor or exhaust mounting surface. Porting, grinding or matching to the combustion chamber is prohibited.

### **Valve Seats**

Valve seats may have up to three angles, 45-degree valve face and 30 degrees top relief and 60-degree bottom relief. No angle milling of the head. Measurement taken from the gasket surface, depth check to combustion chamber floor cannot vary more than .005 in any direction. Intake seat .899" max. Exhaust seat .862" max. Outside face of valve cannot be below combustion chamber floor.

### **Valve Train**

Stock valve-train only in stock configuration. Any 5.5mm steel or stainless steel valves that use stock retainer allowed. Valves can have only one angle of 45 degrees. Intake valve OD .975" minimum, exhaust valve OD .937" minimum. Valve length is non-tech. Any single valve springs and valve spring shims are allowed. No additional support for rocker studs permitted. Champion rocker arm assemblies and valve cover allowed. Breather hole in valve cover may be tapped with 1/4" tap to accommodate breather fittings. No oversize drilling.

### **Minimum Combustion Chamber Volume**

Minimum combustion chamber volume when mounted on engine at TDC is 25 cc's. This is to be done after the races when the engine has cooled. Liquid cc is the official check. Head gasket required, but thickness is non-tech. Can be either steel or aluminum. Multiple head gaskets are allowed. Sealer allowed to ensure proper seal.

### **Bearings**

Crankshaft bearings shall be of metallic (magnetic steel) construction. Must be of conventional design and stock appearing and the same dimensions as the OEM bearings. This includes inner and outer races as well as the balls and rollers. No other materials allowed.