New Zealand National Secondary Schools MiniBike Racing Club Inc.
Specifications of Bike Classes. 2018

Standard Air Cooled Bikes: 50CC.

Aim:

To encourage accurate construction and provide a predetermined overall standard so no competitor can obtain an unfair advantage, by unacceptable modifications. This will be determined by the specifications committee.

1 Frames:

All frames must be of mild steel construction and made in the school workshop with suitably braced headstock. No commercial frames allowed**.** Painted finish. Racing numbers to be visible on the front and both sides of the MiniBike.

2 Front Forks/Head stocks or Triple clamps:

Steel or alloy construction, produced by the student. No commercial components allowed. HEAD STOCK ANGLES. SHOULD BE BETWEEN 22 TO 25 DEGREES. Angles greater than 25 degrees will not be allowed to race.

3 Engines:

The standard A115 engine is the only acceptable engine in this class, in 47cc or 50cc form.
The engine cannot be modified in any way.
No alterations to the engine's transfer ports or adding of extra ports. This includes inlet and exhaust ports.
No alterations to the combustion chamber.
No alterations to the compression ratio. The replacement of the standard steel reed valve with a carbon fibre or glass fibre replacement is not acceptable.
Alteration of the ignition timing by the use of timing keys is not allowed.
Lightening of the flywheel is not allowed.
Race ignition coils are not acceptable.

4 Carburetor/ Fuel Tank, Air filter:

The standard carburetor of the round piston type is the only acceptable type.
No flat slide carbs.
No alteration to the carb jets.
No adjustable carb needle jets. The standard "Black" air filter or original pod filters supplied with the A115 Kit can be used.
FUEL TANKS MUST BE RETAINED IN A WAY SO THAT WHEN THE FUEL CAP IS REMOVED THE TANK CANNOT FALL OUT OF THE SEAT UNIT. Note: A tight fit into the seat unit is not good enough.

5 Gearing and Clutches:

Acceptable gear ratios are.
6 x 68
7 x 68
8 x 68
Clutches should be of the standard type.
Adjustable race style will not be allowed.
ENGINE DRIVE SPROCKETS MUST BE COVERED.

6 Exhausts:

The only acceptable system will be the small black system as supplied in the standard Newmanz kits – unmodified.
No after market exhausts.
No "S" shaped expansion chambers.

7 Leading Dimensions:

Maximum wheel base 850mm. Measured from the centre of the front axle to the centre of the rear axle. ANY MACHINES WITH A WHEEL BASE THAT EXCEEDS THE MAXIMUM BY MORE THAN 10 MM WILL BE EXCLUDED.
Maximum seat height 500mm measured from a point immediately to the rear of the fuel tank, on top of the seat.
Maximum height to front yoke 550mm. Not including fairing.

Maximum handlebar height to highest point from ground 560mm. [10mm above top yoke]
Maximum width of handlebars is 550mm.
HANDLE BARS MAY NOT BE FITTED LOWER THAN THE BOTTOM TRIPLE CLAMP/BOTTOM YOKE.

RIDING/ SEATING POSITION.

The rider's foot pedals will be fastened to the frame.
The foot rests may be located between 150 mm behind the engine drive gear and 150mm forward of the rear axle. Foot rests in awkward positions, as decided upon by the safety testers, will be forwarded to the Specifications committee for deliberation.

8 Brakes/ Axles.

Standard brake caliper's, one only fitted to the front and rear wheels.
Front/rear wheels must both be braked.
REAR AXLE RETAINING NUTS MUST BE held in place with suitable locking devices. For example: Use of castellated nuts and split pins, use of locknuts, use of bolt style axle with drilling for locking wire or pins or R clip, use of new nyloc nuts, drilled axle and wired, R clips, drilled axle and wiring to rear fork.
Any of the above locking devices can be used to prevent movement of the rear axle during use whilst racing and to prevent movement of set chain adjustment.

9 Attention:

It is not our intention to stop the pupils from innovating or to dampen their enthusiasm. Far from it, we will actively encourage that sort of approach. We wish that pupils who spend money and modify their machines do so in a spirit of honesty and fair play.
To this end they should enter the modified air-cooled class. The organising committee will reserve the right to request that the first 3 placed bikes in any standard class be dismantled and inspected at the conclusion of racing and before prizes are presented. If any modifications occur, the student will be disqualified, all points will be forfeited and they will be excluded from participating in the following year's event.
The committee's decision will be final. A standard gasket set will be provided so the student can reassemble the bike at no cost to the student.
Handle bar ends must be plugged and footpegs with rounded ends.
All competitors need to have riding experience - practice to ensure stable riding control before orientation laps at the race circuit.

Note position of the handle bars, foot pegs, and correct riding position.

Classification of Modified Air Cooled Bikes 50cc:

1 Frames:

All frames must be of mild steel construction and made in the school workshop with suitably braced headstock. No commercial frames allowed. Painted finish. Handle bar ends must be plugged, footrests must be rounded. Racing numbers to be visible on the front and both sides of the MiniBike.

2 Front Forks/Head stocks or Triple clamps:

Steel or alloy construction, to be produced by the student. No commercial components allowed.
FORK ANGLES / HEAD STOCK ANGLES AS STANDARD AIR COOLED FRAMES. (22 to 25 degrees)

3 Engines:

The A115 engine is the only acceptable engine in this class. The engine can be modified in any way. MODIFIED BIKES MUST ENTER THE MODIFIED CLASS.

4 Carburetor/Air filter/ Fuel tank.

Carburetor air filter completely open. **FUEL TANK FITMENT AS STANDARD AIR COOLED.i.e.** FUEL TANKS MUST BE RETAINED IN A WAY SO THAT WHEN THE FUEL CAP IS REMOVED THE TANK CANNOT FALL OUT OF THE SEAT UNIT. Note: A tight fit into the seat unit is not good enough.

5 Gearing and Clutches:

Gear ratios are over to the student.
Adjustable race style clutches are allowed.
DRIVE SPROCKETS MUST BE COVERED to protect the rider.

6 Exhausts:

Modified system will be acceptable, after market exhausts and "S" shaped expansion chambers can be used.

7 Leading Dimensions:

Maximum wheel base 850mm. Measured from the centre of the front axle to the centre of the rear axle. AXLE POSITION NO MORE THAN 10 MM OUTSIDE SPECIFICATIONS.
FOOT REST POSITION AS STANDARD BIKES, located between 150 MM BEHIND DRIVE GEAR and 150mm forward of rear axle.
Maximum seat height 500mm measured from a point immediately to the rear of the fuel tank, on top of the seat.
Maximum height to front yoke 550mm. Not including fairing.
Maximum handlebar height to highest point from ground 560mm. [10mm above top yoke]
Maximum width of handlebars is 550mm.
HANDLE BARS should be mounted NO LOWER THAN BOTTOM TRIPLE CLAMP.

8 Brakes Axle's:

Front/rear wheels must be braked. REAR AXLE RETAINING NUTS MUST BE held in place with suitable locking devices. For example: Use of castellated nuts and split pins, use of locknuts, use of bolt style axle with drilling for locking wire or pins or R clip, use of new nyloc nuts, drilled axle and wired, R clips, drilled axle and wiring to rear fork.
Any of the above locking devices can be used to prevent movement of the rear axle during use whilst racing and to prevent movement of set chain adjustment.

Note position of the handle bars, foot pegs, and correct riding position.