

FREETECH ***50cc HIGHTECH RACING***

Regulations **2017**

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General Technical Regulations

1 General

Each machine must be in a safe and trustworthy state and shall not have any sharp protruding parts, subject to the judgment of the technical director.

When in doubt, check with the technical director.

In case of discussion about the regulations or if the case is not mentioned in the regulations, the technical director decides.

2 Engine capacity

The maximum allowed cubic capacity of the engine is 50 cc for naturally aspirated engines and 40 cc for engines with mechanical supercharging.

The cylinder capacity is calculated with the formula:

volume = bore x bore x stroke x 0.0007854

Bore and stroke must be entered in millimeters.

3 Supercharging

The crankcase pumping effect is not considered as mechanical supercharging, provided that the total variation of the crankcase volume during a crankshaft revolution does not exceed the allowed cylinder capacity.

Direct injection of fuel is not considered as mechanical supercharging.

4 Rotating parts

Rotating parts of the ignition, the clutch and the transmission must be properly shielded. A guard with a minimum thickness of 3 mm must be fitted in front of the rear sprocket in such a way as to prevent trapping between the lower drive chain run and the rear sprocket.

5 Wheels

No material may be removed from the rims and spokes.

6 Brakes

Brake discs must be at least 4 mm thick.

7 Tires

Valves must be closed with metal valve caps.

8 Handlebars

Handlebar ends must be closed with rounded synthetic or light-alloy caps. There must be at least 15 degrees of steering movement each side of the center line.

Stops must be fitted to ensure a minimum clearance of 30 mm between the handlebars including the levers, and all the other parts (tank, frame, fairing etc).

9 Ignition cut-out

The machine must be provided with a device which can switch off the ignition. Preferably a red button that is mounted clearly visible on the handlebar, in such way that the rider can operate it without taking his hands off the bars.

10 Handles and footrests

The ends of the brake and clutch handles must have a spherical shape. The throttle twistgrip must close automatically when released. Footrests must be at least 80 mm long. The ends must consist of synthetic or light-alloy material and must be rounded.

11 Cables and hoses

Hydraulic hoses and operating cables of the brakes, clutch and throttle may not exhibit any damage and must be mounted in such a way that they cannot wear through or get pinched. Hoses may not show any leakage.

12 Cooling

The only allowed liquid coolant is water, whether or not mixed with ethanol. Other antifreeze agents are not allowed. A maximum of 2 % anti-corrosive may be added to the coolant.

External oil lines must be fitted with screw- or compression fittings. The use of hose clamps on oil lines is not allowed.

13 Safety wiring

Safety wiring means: the prevention of loosening through the use of metal wire having a thickness of at least 0.6 mm. The use of cotter pins is considered as safety wiring. The use of self-locking nuts and products such as Loctite is not accepted as safety wiring because their proper functioning cannot be determined at scrutineering without disassembly.

All filler caps, plugs, bolts and nuts that can lead to oil leakage, must be safety wired.

Bolts and nuts that are used for mounting brake calipers and brake anchoring must be safety wired. Nuts that are used for mounting wheels must be safety wired.

14 Fuel

Only common unleaded petrol is allowed as fuel, i.e. petrol which is used by normal vehicles on public roads and which is available for everybody via the usual selling points at public roads. In addition to this, Aspen-fuel and E85-fuel are also allowed. Only lubricating oil may be added to the fuel. All other additives, for instance avgas, bluegas, etc. are not allowed.

15 Exhaust

No part of the exhaust system may extend behind the rear tire. The exhaust (not only the silencer) must be fixed with at least 1 bolt. Safety wiring the tension springs is recommended.

16 Number plates

There must be three number plate surfaces, one at the front in a central position, and one at each side. If the front surface is not sufficiently flat, the racing number must be applied on both oblique front sides. The minimum diameter of the number plate must be at least 125 mm. The numbers must be at least 90 mm high.

17 Weight

The total weight of the race-ready machine must be at least 55 kg.
The total weight of the machine plus rider must be at least 120 kg.

18 Clothing

The rider must wear a one-piece leather suit with a material thickness of at least 1.2 mm, with reinforcing on the shoulders, elbows, hips and knees. Wearing a hard back protector with EC-label is mandatory. The rider must wear gloves and boots made out of leather or of a material with the same relevant properties. Gloves and boots must overlap the suit.

Wearing eye protection in the form of an undamaged visor is mandatory.

19 Helmet

The helmet must have an official ECE 22-05-label or one of the recognized FIM labels, that is securely fixed in the helmet and is well readable.
The helmet must be undamaged.