

# IOMKRA Sprint

## Technical Regulations 2020

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# 1. All Classes

## AC1 **Introduction**

Regulations below apply to all classes.

## AC2 **Chassis**

The Scrutineer shall have the final decision on the eligibility of the chassis for all classes.

The chassis should be in good condition with no cracks and be of one-piece construction.

## AC3 **Ballast**

It is permitted to add weight to the kart in order to meet minimum weight requirements. Weights must be attached within the periphery of the main kart frame and must not be attached to the side pods and/or front nose cone. It is permitted to add weights to the seat but strongly recommended not to overload one area with weight and 2kg may if required be fitted to the floor tray. No one single piece of ballast must be more than 5kg.

Bambinos / Cadets / Juniors must have all ballast fixed using two mechanical fixings – 2 bolts minimum M8 with suitable washers to spread the load.

Senior Prokarts may secure ballast to the kart using weight posts but these must be secured with retainer pins, the same method as Bambinos / Cadets / Juniors of securing ballast may also be sufficient.

The Scrutineer has the final decision on suitability of ballast being applied to kart and its securing method.

## AC4 **Fuel**

Fuel must be standard unleaded petrol pump fuel, with recognised mixing oils permitted for 2 stroke karts.

The use of power boosting or octane boosting additives by competitors in any fuel is prohibited.

## AC5 **Sprockets (Gearing)**

Rear sprockets of 219 pitch must be used but gearing is open.

## AC6 **Sprockets Protectors**

A Sprocket protector is to be fitted. All sprocket protectors MUST BE PLASTIC and fitted to all sprockets that protrude below or level with the main chassis tubes nearest to the ground.

## AC7 **Chassis Protectors**

The use of nylon chassis protectors is permitted.

## AC8 **Tyres**

Tyres must NOT be cut, altered in anyway and not have any chemical/s applied to soften or modify the tyre in anyway. Tyre warmers or any device/equipment that delivers heat in to the tyres may NOT be used.

Tyres need to be in usable condition. Slick tyres should not be used beyond the wear markers. To qualify as a wet tyre, tyres must be moulded in such a way as to ensure that grooves are created to

leave a minimum of 60% and a maximum of 85% of the total surface area as a raised tread pattern. The grooves must have a minimum depth of 2mm at race start.

At no time may a Kart be fitted with a mixture of wet and dry tyres.

**AC9     [Steering Column](#)**

Steering column must have a collar fitted to secure it to the kart if the bottom bolt fails.

**AC10   [Throttle Return Spring](#)**

Throttle return springs must be fitted to both the carburettor and pedal.

**AC11   [On-board Cameras](#)**

On-board cameras may be used as per the organiser's specific requirements. The Scrutineer and the Event Organiser's decision are final on this matter.

**AC12   [Telemetry](#)**

The use of telemetry is permitted. Clerk of the Course must have previously approved its use by any team and the actual location of beacon. Each beacon must have the team name clearly marked. Any unauthorised beacon or beacon placed in an unauthorised place will be removed and the team may their practice times disallowed or it, during the race, may be excluded. If there is any interference (or risk of) the Clerk of the Course may require that all such devices are removed from the track edge and switched off.

**AC13   [Pit to Driver Radios](#)**

The use of radios to communicate from the pit lane/paddock/trackside to driver is forbidden, as is the use of any form of direct verbal communication.

# 1. Bambino Comer C50

## BC1 **Introduction**

Starter racing class from 6 years of age.

Regulations under this section apply in addition to those in Section 1.

## BC2 **Chassis**

Recognised Bambino Chassis only.

## BC3 **Modifications**

The only additions permitted, along with modifications solely concerned with their fitment are: seats, Nassau Panels, Front Fairing and Ballast to achieve the required weight or for repair purposes.

## BC4 **Floor Tray**

There must be a rigid, flat floor from the seat to the front and side chassis members, secured to them so as to prevent the driver's feet from sliding off. The rear-most point of the floor tray must not project beyond the middle of the chassis cross rail located under the front of the seat. Any perforation of the floor other than for the attachment of ballast and other applicable accessories must be a production feature and be homologated as such. If perforated, the holes must not have a diameter exceeding 10mm.

## BC5 **Bodywork and Bumpers**

All karts must be fitted with bumpers and bodywork providing front, rear and side protection. Bodywork must be recognised kart bodywork. Any modification to the aerodynamic or structural properties is not permitted.

The Rear Bumper should be CIK Plastic or metal, must be secured to the kart at two points and cover 50% of each of the back tyres as a minimum.

All bodywork should be securely attached to the kart at all times.

## BC6 **Seat**

Seat must be a recognised kart seat. Additional bolt on seat stays/mountings are permitted to a maximum of one per side, position is free. Bolt fixings must be used at each end of the seat stays. The seat must not show damage or fatigue due the placement of ballast attached to the seat.

## BC7 **Engine**

Comer C50 engine fitted with standard genuine Comer parts as listed on the parts list except air filter which may be changed to an aftermarket one.

## BC8 **Steering**

Camber/caster adjustment by any means is not permitted.

## BC9 **Engine Modifications**

No addition of, or other change of material is permitted. No modifications, tuning or rectification to fiche for whatever purpose is allowed except as listed below:

- I. Repair of damaged threads with helicoils is permitted. The repair of the cylinder spark plug thread and/or coil mounting threads is not permitted.
- II. The spark plug cap may be replaced by parts of other commercial manufacture and which must be directly equivalent.
- III. The only spark plugs permitted are shown below; they must be unmodified and as supplied by the manufacturer, with sealing washer in place unless a temperature sensor is fitted, the minimum thickness for the temperature sensor is 1.5mm.  
Permitted spark plugs: Bosh WS5F; Bosh WSR7F; and Champion RCJ7Y
- IV. Gaskets may be trimmed for alignment of parts.
- V. A wet box or splash guard (part no. ZED002) attached to the engine or chassis is permitted. The air box cannot be modified in any way to aid in the attachment of the wet box or splash guard.

The use of a single in-line fuel filter is permitted.

**BC10 Carburettor**

Dell'Orto SHA 12/14 L as per the current homologation fiche. The carburettor must remain unmodified and conform in all aspects to the official homologation fiche.

**BC11 Transmission**

Direct from the engine to the axle via a single length of chain. All methods of chain oiling and greasing while the kart is in motion are forbidden. A MSA approved guard must be fitted covering the transmission.

Gearing is open.

**BC12 Axle**

As registered with the chassis. Must be fitted with circlips on the ends of the axle.

**BC13 Brakes**

As registered with the chassis. Mechanical system with solid disc acting on the rear axle only. Interruptions on the brake surface (drilling, grooves, slots, etc.) are permitted, radially vented discs are not permitted. If the brake system is registered with dual-linkage, this must be fitted at all times. A brake safety wire should be in place in case of linkage failure.

Where required by the regulation, a brake disc protector must be fitted.

**BC14 Wheels**

Widths measured from outside edges, Front: 100mm min. and 115mm max, Rear: 140mm ± 2mm.

**BC15 Tyres**

Le Cont MSA 04, all-weather tyres, Front: 10 x 4.00 x 5, Rear 11 x 5.00 x 5.

Maximum tyre circumference: Front 820mm, rear 840mm. The minimum tyre treads depth is 1mm at any point.

**BC16 Weight**

Minimum weight is 69kg including the driver.

A maximum of 15kg ballast may be carried. Any competitor unable to meet the minimum weight when carrying maximum ballast may be subject to additional performance restrictions.

BC16      **Number Plates**

Black with White numbers are advised but not compulsory. Numbers are to be displayed on the front, rear and sides as mandatory. They should be of such font and size that they are easily recognised by officials.

BC17      **Age**

For 6-8 year-olds. A competitor may compete from the day of their 6<sup>th</sup> birthday and continue in the class until 31<sup>st</sup> December in the year of their 8<sup>th</sup> birthday.

A competitor may move up to the Cadet class on the day of their 8<sup>th</sup> birthday.

## 2. Honda Cadet GX160

### HC1 **Introduction**

Starter racing class from 8 years of age.

Regulations under this section apply in addition to those in Section 1.

### HC2 **Chassis**

Recognised Cadet chassis only.

### HC3 **Modifications**

The only additions permitted, along with modifications solely concerned with their fitment are: seats, Nassau Panels, Front Fairing and Ballast to achieve the required weight or for repair purposes.

### HC4 **Floor Tray**

There must be a rigid, flat floor from the seat to the front and side chassis members, secured to them so as to prevent the driver's feet from sliding off. The rear-most point of the floor tray must not project beyond the middle of the chassis cross rail located under the front of the seat. Any perforation of the floor other than for the attachment of ballast and other applicable accessories must be a production feature and be homologated as such. If perforated, the holes must not have a diameter exceeding 10mm.

### HC5 **Bodywork and Bumpers**

All karts must be fitted with bumpers and bodywork providing front, rear and side protection. Bodywork must be recognised kart bodywork. Any modification to the aerodynamic or structural properties is not permitted.

The Rear Bumper should be CIK Plastic or metal, must be secured to the kart at two points and cover 50% of each of the back tyres as a minimum.

All bodywork should be securely attached to the kart at all times.

### HC6 **Seat**

Seat must be a recognised kart seat. Additional bolt on seat stays/mountings are permitted to a maximum of one per side, position is free. Bolt fixings must be used at each end of the seat stays. The seat must not show damage or fatigue due the placement of ballast attached to the seat.

### HC7 **Engine**

One Honda engine of the 'GX160T1 QHQ4', 'GX160UT1 QHQ4', 'QHG4', 'GX160UT2-QHQ4' or 'GX160RT2-QHG4' designation or as subsequently modified, is to be fitted. Engine types must comply with the ABkC Honda GX160 Technical Regulations Version 15 of January 2020 or as subsequently modified, which are available on the ABkC website [www.abkc.org.uk](http://www.abkc.org.uk)

### HC8 **Engine Modifications**

Only modifications/additions in compliance with the ABKC Honda GX160 Technical Regulations Version 15 of January 2020 or as subsequently modified are permitted. T1 Engine Regulations are in GX160 Technical Regulations v11a 2016.

A performance restrictor plate of currently 16mm is to be fitted between the carburettor and insulator as per the Honda GX160 Technical Regulations.

Either the Honda Exhaust as detailed in the Honda Technical Regulations v11 2016 (section 4) or the DEPHC1600 exhaust from DEP Pipes is permitted. When the DEPC1600 exhaust is in use the mandatory heat shield DEPHG 16#01 must be fitted at all times.

The use of a single in-line fuel filter is permitted.

- HC9      **Transmission**  
Direct from the engine to the axle via a single length of chain. All methods of chain oiling and greasing while the kart is in motion are forbidden. A MSUK approved guard must be fitted covering the transmission.
- HC10     **Axle**  
A solid, magnetic parallel bar of 25mm diameter. Must be fitted with circlips on the ends of the axle.
- HC11     **Brakes**  
Mechanical or hydraulic operation, solid disc, operating on the rear axle only. Interruptions on the friction surface (drilling, slots etc.) are permitted on homologated systems only and must be specified on the homologation form. Radially vented discs are not permitted. The brake linkage must be duplicated. A brake safety wire should be in place in case of linkage failure.
- HC12     **Wheels**  
Wheels may be of two piece or mono aluminium construction, i.e. spun aluminium, diecast aluminium or sandcast aluminium. Hubs may be separate or integral.
- HC13     **Tyres**  
Dry – ‘Dunlop SL3-MSUK’      Front 10 x 3.6 x 5, Rear 11 x 5 x 5. Barcoded  
Wet – ‘Dunlop KT3’              Front 10 x 3.6 x 5, Rear 11 x 4.5 x 5. Barcoded
- HC14     **Weight**  
Minimum weight is 103kg including the driver. Minimum driver weight is 27kg excluding helmet.  
  
A maximum of 15kg ballast may be carried. Any competitor unable to meet the minimum weight when carrying maximum ballast may be subject to additional performance restrictions.
- HC15     **Number Plates**  
Yellow with Red numbers are advised but not compulsory. Numbers are to be displayed on the front, rear and sides are mandatory. They should be of such font and size that they are easily recognised by officials.
- HC16     **Age**  
For 8-13 year-olds. A competitor may compete from the day of their 8<sup>th</sup> birthday and continue in the class until 31<sup>st</sup> December in the year of their 13<sup>th</sup> birthday.  
  
A competitor may move up to the Junior class in the year of their 12<sup>th</sup> birthday.



### 3. Honda Cadet Extreme (GX200)

HCE1      **Introduction**

The Technical Regulations as described in Section 2 (Honda Cadet GX160) apply except where stated below.

HCE7      **Engine**

One Honda GX200 “Extreme” engines as supplied by RPM with seals intact. An RPM supplied 15mm carburettor restrictor must be fitted as well as the “DEP” exhaust as supplied by RPM. A heat shield may be fitted.

Buy Back – all GX200 Extreme engines are subject to a buy back clause. *See ‘Buy Back’ section 10 within these Technical Regulations for explanation.*

HCE8      **Engine Modifications**

No other modifications are permitted, and all seals must remain intact.

The use of a single in-line fuel filter is permitted.

HCE14      **Weight**

Minimum weight is 105kg including the driver. Minimum driver weight is 27kg excluding helmet.

A maximum of 15kg ballast may be carried. Any competitor unable to meet the minimum weight when carrying maximum ballast may be subject to additional performance restrictions.

## 4. Honda Junior GX160

### HJ1 **Introduction**

Racing class for 12 to 16 year-olds.

Regulations under this section apply in addition to those in Section 1.

### HJ2 **Chassis**

Recognised Pro-Kart Chassis only.

### HJ3 **Modifications**

The only additions permitted, along with modifications solely concerned with their fitment are: seats, Nassau Panels, Front Fairing and Ballast to achieve the required weight or for repair purposes.

### HJ4 **Floor Tray**

There must be a rigid, flat floor from the seat to the front and side chassis members, secured to them so as to prevent the driver's feet from sliding off. The rear-most point of the floor tray must not project beyond the middle of the chassis cross rail located under the front of the seat. Any perforation of the floor other than for the attachment of ballast and other applicable accessories must be a production feature and be homologated as such. If perforated, the holes must not have a diameter exceeding 10mm.

### HJ5 **Bodywork and Bumpers**

All karts must be fitted with bumpers and bodywork providing front, rear and side protection. Bodywork must be recognised kart bodywork. Any modification to the aerodynamic or structural properties is not permitted.

The Rear Bumper should be CIK Plastic or metal, must be secured to the kart at two points and cover 50% of each of the back tyres as a minimum.

All bodywork should be securely attached to the kart at all times.

### HJ6 **Seat**

Seat must be a recognised kart seat. Additional bolt on seat stays/mountings are permitted to a maximum of one per side, position is free. Bolt fixings must be used at each end of the seat stays. The seat must not show damage or fatigue due the placement of ballast attached to the seat.

### HJ7 **Engine**

Two Honda engine of the 'GX160T1 QHQ4', 'GX160UT1 QHQ4', 'QHG4', 'GX160UT2-QHQ4' or 'GX160RT2-QHG4' designation or as subsequently modified, is to be fitted. Engine types must comply with the ABkC Honda GX160 Technical Regulations Version 15 of January 2020 or as subsequently modified, which are available on the ABkC website [www.abkc.org.uk](http://www.abkc.org.uk)

### HJ8 **Engine Modifications**

Only modifications/additions in compliance with the ABKC Honda GX160 Technical Regulations Version 15 of January 2020 or as subsequently modified are permitted. T1 Engine Regulations are in GX160 Technical Regulations v11a 2016.

A performance restrictor plate of currently 16mm is to be fitted between the carburettor and insulator as per the Honda GX160 Technical Regulations.

Either the Honda Exhaust as detailed in the Honda Technical Regulations v11 2016 (section 4) or the DEPHC1600 exhaust from DEP Pipes is permitted. When the DEPC1600 exhaust is in use the mandatory heat shield DEPHG 16#01 must be fitted at all times.

The use of a single in-line fuel filter is permitted.

**HJ9      [Transmission](#)**

Direct from the engine to the axle via a single length of chain. All methods of chain oiling and greasing while the kart is in motion are forbidden. All karts must have chain guard strips or fully enclosed transmission guards fitted.

**HJ10     [Axle](#)**

Rear axle must be 30mm diameter can be solid. It must be made from a homogeneous ferrous steel magnetic material. No differential of any type is permitted. Must be fitted with circlips on the ends of the axle.

**HJ11     [Brakes](#)**

One hydraulic or mechanical brake should be fitted to the rear axle only. The brake disc must be made of metal but can be vented or drilled. A calliper with a maximum of four pistons may be used with two per side of the disc. The brake linkage must be duplicated. A brake safety wire should be in place in case of linkage failure.

**HJ12     [Wheels](#)**

Wheels may be of two piece or mono aluminium construction, i.e. spun aluminium, diecast aluminium or sandcast aluminium. Hubs may be separate or integral.

**HJ13     [Tyres](#)**

Dry – ‘Bridgestone YDS’ Front 10 x 3.6 x 5, Rear 11 x 5 x 5.  
Wet – ‘Bridgestone YFD’ Front 10 x 3.6 x 5, Rear 11 x 6.0 x 5.

**HJ14     [Weight](#)**

Minimum weight is 160kg including the driver. Minimum driver weight is 40kg excluding helmet.

A maximum of 25kg ballast may be carried. Any competitor unable to meet the minimum weight when carrying maximum ballast may be subject to additional performance restrictions.

**HJ15     [Number Plates](#)**

Blue with White numbers are advised but not compulsory. Numbers are to be displayed on the front, rear and sides are mandatory. They should be of such font and size that they are easily recognised by officials.

**HJ16     [Age](#)**

For 12 to 16-year-olds. A competitor may enter the Junior Class in the year of their 12th birthday and continue until the end of the season in the year they turn 16 years old. Drivers may be considered from the year of their 11th birthday, providing they meet the minimum weight limit of 40kg excluding ballast or helmet and over 149cm in height. They must also demonstrate a competent level of driving. Competency should be assessed by a senior official at a practice session.

A competitor may move up to the Senior class at any time during the year of their 16th birthday.

## 5. Honda Junior Extreme (GX200)

### HJE1 **Introduction**

The Technical Regulations as described in Section 4 (Honda Junior GX160) apply except where stated below.

### HJE7 **Engine**

Two Honda GX200 “Extreme” engines as supplied by RPM with seals intact. RPM supplied 15mm carburettor restrictor must be fitted as well as the “DEP” exhaust as supplied by RPM. A heat shield may be fitted.

Buy Back – all GX200 Extreme engines are subject to a buy back clause. *See ‘Buy Back’ section 10 within these Technical Regulations for explanation.*

### HJE8 **Engine Modifications**

No other modifications are permitted and all seals must remain intact.

The use of a single in-line fuel filter is permitted.

### HJE14 **Weight**

Minimum weight is 165kg including the driver. Minimum driver weight is 40kg excluding helmet.

A maximum of 30kg ballast may be carried. Any competitor unable to meet the minimum weight when carrying maximum ballast may be subject to additional performance restrictions.

### HJE15 **Number Plates**

Orange with Black numbers are advised but not compulsory. Numbers are to be displayed on the front, rear and sides are mandatory. They should be of such font and size that they are easily recognised by officials.

## 6. Junior Rotax

### JR1 **Introduction**

Racing class for 12 to 16 year-olds.

Regulations under this section apply in addition to those in Section 1.

### JR2 **Chassis**

Recognised Chassis only.

### JR3 **Modifications**

The only additions permitted, along with modifications solely concerned with their fitment are: seats, Nassau Panels, Front Fairing and Ballast to achieve the required weight or for repair purposes.

### JR4 **Floor Tray**

There must be a rigid, flat floor from the seat to the front and side chassis members, secured to them so as to prevent the driver's feet from sliding off. The rear-most point of the floor tray must not project beyond the middle of the chassis cross rail located under the front of the seat. Any perforation of the floor other than for the attachment of ballast and other applicable accessories must be a production feature and be homologated as such. If perforated, the holes must not have a diameter exceeding 10mm.

### JR5 **Bodywork and Bumpers**

All karts must be fitted with bumpers and bodywork providing front, rear and side protection. Bodywork must be recognised kart bodywork. Any modification to the aerodynamic or structural properties is not permitted.

The Rear Bumper should be CIK Plastic or metal, must be secured to the kart at two points and cover 50% of each of the back tyres as a minimum.

All bodywork should be securely attached to the kart at all times.

### JR6 **Seat**

Seat must be a recognised kart seat. Additional bolt on seat stays/mountings are permitted to a maximum of one per side, position is free. Bolt fixings must be used at each end of the seat stays. The seat must not show damage or fatigue due the placement of ballast attached to the seat.

### JR7 **Engine**

The only engine permitted in this class is the Rotax FR125 JUNIOR MAX.

The Junior Max adheres to the Senior Rotax FR125 Max fiche plus extensions for the Junior including the cylinder differences. The cylinder is to be of non-Power Valve type. The engine is a single cylinder, liquid cooled, reed valve two stroke. All engines must be sealed between cylinder, crankcases, cylinder head and the reed valve block with an official seal to prevent modification. All seals must be crimped with the official Rotax crimping tool (Part No: 276 110). Each end of the sealing wire must only pass through the seal once.

All engines are issued with an official identity card. It is the competitor's responsibility to ensure that the numbers inscribed on the engine and seal must correspond with those on the

identity card at all times Only authorised dealers will be issued with seals for use during maintenance of the engines. The identity card must be filled in and signed by an authorised dealer. The engine must be presented at scrutineering with the official class seal intact and the identity card lodged with the scrutineer. The card must be collected by the competitor at the end of the race meeting. (At club race meetings it is not compulsory for competitors to lodge the identity card with the scrutineers. The identity card must be available for inspection by the scrutineers at any time during the race meeting.) Should a seal become damaged, loose or lost during racing it must be reported to the meeting's scrutineer before leaving parc ferme. To allow the competitor to continue racing the scrutineer may at his discretion re-seal the engine with an official Motorsport UK seal. The new seal No. must be entered in the engine's identity card and signed by the scrutineer. The engine must be taken to an official dealer with the Motorsport UK seal intact to be re-sealed with an official class seal before competing at the next race meeting.

JR8

#### **Engine Modifications**

Neither the engine nor any of its ancillaries may be modified in any way.

"Modified" is defined as any change in form, content or function that represents a condition of difference from that originally designed. This is to include the addition and/or omission of parts and/or material from the engine package assembly unless specifically allowed within these regulations or the official Karting UK/MSA fiche. The adjustment of elements specifically designed for that purpose shall not be classified as modifications, i.e. carburettor and exhaust valve adjustment screws.

#### **UNLESS IT STATES THAT YOU CAN DO IT YOU CANNOT!!!**

The engine must be raced in standard form as manufactured and supplied by Rotax unless otherwise stated. Filing, grinding, polishing, surface treating, machining or lightening of any component is forbidden unless otherwise stated. The addition of material to any component is not allowed unless otherwise stated. All parts used in or on this engine must be of original manufacture or source as supplied by Rotax for the FR125 Max unless otherwise stated. The engine is to be used with air box, carburettor, fuel pump, radiator, wiring loom, ignition system and exhaust system as supplied by Rotax unless otherwise stated. Position and method of mounting the battery, wiring loom and exhaust system are free unless otherwise stated providing they are securely fixed to the satisfaction of the meeting's scrutineers and in accordance with Motorsport UK Yearbook regulations. Filing of crankcase to allow easy fitting of water connection is allowed. Fitting of helicoils and inserts to repair damaged threads is allowed, except for the spark plug thread in the cylinder head insert, providing such repairs are not used to derive any benefit other than rectification of damage.

Minor damage to the cylinder or crankcase may be repaired by welding but only to restore the component to the original specification.

The use of thermal barrier coatings/ceramic coatings on or in the engine or exhaust system is not allowed. Replacement connectors to repair wiring loom are permitted. Repairs to starter motor are also allowed.

JR9

#### **Carburettor**

Dell'orto VHSB 34 QD, QS or XS.

All parts of the carburettor including the body are to be unmodified and run as supplied by Rotax. The carburettor must have VHSB 34 (cast in body) QD, QS or XS (stamped on body). All

parts must comply with the official fiche. The only adjustments allowed are the main jet, external air screw, throttle stop adjustment screw, and needle position on the five grooves provided.

QD and QS carburettor: Needle jet atomiser FN 266. Choke jet 60. Idle jet 30, idle jet emulsion tube 30. Needle K27 or K98. Float needle valve 150. Slide 40. Floats 5.2gr. Atomiser Type 2. Alternative idle jet 60, idle jet emulsion tube 60, and 3.6gr floats may be used. Idle jets, idle jet emulsion tubes and floats may not be mixed and only used in one of the two following combinations:- Combination 1: Idle jet 30, idle jet emulsion tube 30, floats 5.2gr; Combination 2: idle jet 60, idle jet emulsion tube 60, floats 3.6gr. The venturi must have 34 cast and 12.5 or 8.5 stamped on the top of the venturi.

XS carburettor: Needle jet DP267. Choke jet 60. Idle jet 60, idle jet emulsion tube 45. Needle K57. Float needle valve 150. Slide 45. Floats 4.0gr. The venturi insert must have 12.5 stamped on the top.

Throttle cable and adjusters are free. It is permitted to use a single length of vent tube looped across the two air vents of the carburettor with a hole or slot cut in the side of the vent tube at the top of the loop.

FLOAT LEVER ARM HEIGHT: Using the ROTAX gauge (Part No: 277 400), the float arms must both fit between the gauge slot without touching. The carburettor must be upside down on a horizontal flat surface. The gauge must sit on the metal body of the carburettor without gasket.

JR10

#### **Fuel Pump**

Only Mikuni – Fuel Pump DF 44-210 may be used. The fuel pump must be fitted to the bottom or side of the standard air box bracket. Only a single length of pulse tube from crankcase connector to fuel pump may be used. Only a single length of fuel line from fuel pump to carburettor may be used. It is permitted to use an in-line fuel filter as supplied by Rotax between the fuel tank and fuel pump. An Internal fuel tank filter is also permitted. No restrictors, fuel returns or additional reservoirs are permitted.

JR11

#### **Intake Silencer**

Only Type 2 may be used.

The Intake Silencer/Airbox must be used unmodified as supplied by Rotax for the FR125 Max engine with its filter and all component parts including support bracket in place.

The two halves of the airbox must be securely screwed together using 4 M6 screws. All 4 screws must be sufficiently tightened to securely clamp the two halves of the airbox together.

Intake silencer tube and airbox-to-carburettor socket must be marked with “ROTAX”.

In all conditions the air box MUST be positioned with inlet trumpets to the bottom of the box. The air box must be securely fitted in a manner to prevent rotation.

JR12

#### **Exhaust System**

Only TYPE B or EVO exhaust may be used. The exhaust system and silencer may not be modified in any way except for the pop rivets securing the silencer end plate may be replaced with screws. The use of a jubilee clip to secure the end plate pop rivets or screws is allowed. It



is permitted to paint the exhaust system with black paint. The use of any other coating or plating is not allowed. It is permitted to make minor repairs by welding or brazing to the exhaust system providing there are no alterations to the original dimensions.

EVO exhaust system with separate silencer with 90° elbow outlet. EVO silencer must use perforated silencer tube and end plate with 90° elbow outlet. Gasket ring must be fitted between exhaust system and silencer. Type B exhaust system must use perforated silencer tube and end plate with straight outlet.

#### JR13 **Cooling System**

The radiator must be fitted to the right hand side of the engine using standard hoses and connections as supplied by Rotax. Engines using the thermostat cooling system must use the system in its entirety which comprises of thermostat head cover, radiator, radiator cap, radiator hoses, steel crankcase water hose connecting tube and radiator bracket. It is permitted to use the thermostat cooling system with or without the thermostat in place. The use of alternative hose clips and screw fixings are permitted. Blanking of the radiator is free providing it does not necessitate the modification of the original components other than simple attachment. Minor repairs to the radiator are allowed.

#### JR14 **Ignition Unit**

DENSO digital battery ignition, variable timing with no adjustment. Ignition coil must have "129000-" and "DENSO" moulded on the case. The ignition coil must have three pin connection. The ignition coil must be mounted by means of two original rubber mounting blocks or equivalent to the gearbox cover. In the case of chassis component interference with the original mounting position it is permitted to relocate the ignition coil by the use of an extension bracket. The extension bracket must be attached to the original gearbox cover mounting holes. The minimum length of HT lead permitted is 210mm from outlet of cable at ignition coil to outlet of cable at spark plug connector (= the visible length of wire). Spark plug cap must be marked with "NGK TB05EMA", or alternative red rubber version marked "NGK", as described on the official Karting UK fiche. Ignition switch can be either On-Off type, or Automatic fuse type. Any make of lead acid battery is permitted provided it is of the same specification as supplied by Rotax for the FR125MAX 12v/6.5Ah, 12V/7.2Ah or 12v/9Ah. FIAMM-GS type FG20651, FG20722, FGHL20722, FGH20902, YUASA YT7B-BS and ROTAX BATTERY FX7-12B. ONLY the ROTAX lithium iron phosphate battery RX7-12L or RX-12B may be used as an alternative to lead acid batteries. The ignition pick up must be marked with the numbers 029600-0710, followed by a variable production code on the 2nd line.

EVO Dell'orto ignition system: Ignition coil with separate ECU. The minimum length of HT lead permitted is 210mm from outlet of cable at ignition coil to outlet of cable at spark plug connector (= the visible length of wire). Spark plug cap must be marked with "NGK TB05EMA", or alternative red rubber version marked "NGK", as described on the official Karting UK fiche. Engines using the EVO Dell'orto ignition system must use the system in its entirety which comprises of ignition coil, ECU, mounting brackets, wiring loom, battery clamp (battery box) and all its components as described in the Karting UK fiche. Battery clamp (battery box) must be mounted on the left side of the chassis, next to the seat. Only YUASA YT7B-BS (with and without Rotax branding) and ROTAX RX7-12B or RX7-12L (lithium-ion phosphate type) may be used with EVO Dell'orto ignition system.

#### JR15 **Spark Plug**

The only spark plugs permitted are as listed below and must be unmodified with sealing washer in place. The list of spark plugs is as follows:

Denso IW24, IW27, IW29, IW31.

NGK BR8 EG, BR9 EG, BR10 EG, B8 EG, B9 EG, B10 EG, B8 EGV, B9 EGV, B10 EGV, BR8 EIX, BR9 EIX, BR10 EIX, GR9D1-8, GR8D1-8.

Other makes/types may be added to this list by J.A.G.; details will be published in official bulletin.

JR16

#### **Transmission**

Direct from the engine to the rear axle via a single length of chain. The clutch must be as supplied by Rotax for the FR125 MAX. The internal running surface of the clutch must remain dry and free of grease or lubricant or any additional substance. The engine clutch must be triggered at 4000 rpm maximum and make the kart and Driver move forward. The clutch must be in direct drive (and 100% engaged) at 6,500 rpm. See U18.8. A bar test may also be used to test clutch engagement, parameters to be advised.

All sprockets must use a 15 x 19 x 17 needle cage bearing and O-ring seal except in the case of an 11 tooth sprocket. An 11 tooth sprocket must be fitted with a plain bearing and an O-ring seal.

JR17

#### **Brakes**

Hydraulic disc brake operating on rear wheels only.

JR18

#### **Wheels**

Wheels may be of two piece or mono aluminium construction, i.e. spun aluminium, diecast aluminium or sandcast aluminium. Hubs may be separate or integral.

JR20

#### **Tyres**

Dry: MOJO – D2 'CIK F Option' with barcode 10.0 x 4.50-5 front. 11.0 x 7.10-5 rear.

MOJO D2XX 'CIK-Option', with barcode 10.0 x 4.50-5 front. 11.0 x 7.10-5 rear

Wet: MOJO W2 with barcode 10.0 x 4.50-5 front. 11.0 x 6.00-5 rear

MOJO W5 'CIK Rain' with barcode 10.0 x 4.50-5 front. 11.0 x 6.00-5 rear

Tyres must be fitted to run in the correct direction of rotation, as indicated by the arrow on the sidewall of the tyre.

JR21

#### **Weight**

Minimum of 148kg including driver at all times. Minimum driver weight is 40.0kg.

JR22

#### **Number Plates**

Red with White numbers are advised but not compulsory. Numbers are to be displayed on the front, rear and side are mandatory. They should be of such font and size that they are easily recognised by officials.

JR23

#### **Age**

For 12 to 16-year-olds. A competitor may enter the Junior Class in the year of their 12th birthday and continue until the end of the season in the year they turn 16 years old. Drivers may be considered from the year of their 11th birthday, providing they meet the minimum weight limit of 40kg excluding ballast or helmet and over 149cm in height. They must also demonstrate a competent level of driving. Competency should be assessed by a senior official at a practice session.

A competitor may move up to the Senior class at any time during the year of their 16th birthday.

## 7. Honda Senior GX160

### HS1 **Introduction**

Class from 16 years of age.

Regulations under this section apply in addition to those in Section 1.

### HS2 **Chassis**

Recognised Pro-Kart Chassis only.

### HS3 **Modifications**

The only additions permitted, along with modifications solely concerned with their fitment are: seats, Nassau Panels, Front Fairing and Ballast to achieve the required weight or for repair purposes.

### HS4 **Floor Tray**

There must be a rigid, flat floor from the seat to the front and side chassis members, secured to them so as to prevent the driver's feet from sliding off. The rear-most point of the floor tray must not project beyond the middle of the chassis cross rail located under the front of the seat. Any perforation of the floor other than for the attachment of ballast and other applicable accessories must be a production feature and be homologated as such. If perforated, the holes must not have a diameter exceeding 10mm.

### HS5 **Bodywork and Bumpers**

All karts must be fitted with bumpers and bodywork providing front, rear and side protection. Bodywork must be recognised kart bodywork. Any modification to the aerodynamic or structural properties is not permitted.

The Rear Bumper should be CIK Plastic or metal, must be secured to the kart at two points and cover 50% of each of the back tyres as a minimum.

All bodywork should be securely attached to the kart at all times.

### HS6 **Seat**

Seat must be a recognised kart seat. Additional bolt on seat stays/mountings are permitted to a maximum of one per side, position is free. Bolt fixings must be used at each end of the seat stays. The seat must not show damage or fatigue due the placement of ballast attached to the seat.

### HS7 **Engine**

Two Honda engine of the 'GX160T1 QHQ4', 'GX160UT1 QHQ4', 'QHG4', 'GX160UT2-QHQ4' or 'GX160RT2-QHG4' designation or as subsequently modified, is to be fitted. Engine types must comply with the ABkC Honda GX160 Technical Regulations Version 15 of January 2020 or as subsequently modified, which are available on the ABkC website [www.abkc.org.uk](http://www.abkc.org.uk)

### HS8 **Engine Modifications**

Only modifications/additions in compliance with the ABKC Honda GX160 Technical Regulations Version 15 of January 2020 or as subsequently modified are permitted. T1 Engine Regulations are in GX160 Technical Regulations v11a 2016.

Either the Honda Exhaust as detailed in the Honda Technical Regulations v11 2016 (section 4) or the DEPHC1600 exhaust from DEP Pipes is permitted. When the DEPC1600 exhaust is in use the mandatory heat shield DEPHG 16#01 must be fitted at all times.

The use of a single in-line fuel filter is permitted.

- HS9      **Transmission**  
Direct from the engine to the axle via a single length of chain. All methods of chain oiling and greasing while the kart is in motion are forbidden. All karts must have chain guard strips or fully enclosed transmission guards fitted.
- HS10     **Axle**  
Rear axle must be 30mm diameter can be solid. It must be made from a homogeneous ferrous steel magnetic material. No differential of any type is permitted. Must be fitted with circlips on the ends of the axle.
- HS11     **Brakes**  
One hydraulic or mechanical brake should be fitted to the rear axle only. The brake disc must be made of metal but can be vented or drilled. A calliper with a maximum of four pistons may be used with two per side of the disc. The brake linkage must be duplicated. A brake safety wire should be in place in case of linkage failure.
- HS12     **Wheels**  
Wheels may be of two piece or mono aluminium construction, i.e. spun aluminium, diecast aluminium or sandcast aluminium. Hubs may be separate or integral.
- HS13     **Tyres**  
Dry – ‘Bridgestone YDS’ Front 10 x 3.6 x 5, Rear 11 x 5 x 5.
- HS14     **Weight**  
Minimum weight is 180kg including the driver.  
  
A maximum of 25kg ballast may be carried. Any competitor unable to meet the minimum weight when carrying maximum ballast may be subject to additional performance restrictions.
- HS15     **Number Plates**  
White with Red numbers are advised but not compulsory. Numbers are to be displayed on the front, rear and sides as mandatory. They should be of such font and size that they are easily recognised by officials.
- HS16     **Age**  
For 16 year-olds onwards.

## 8. Honda Senior Extreme (GX200)

### HSE1 **Introduction**

The Technical Regulations as described in Section 6 (Honda Senior GX160) apply except where stated below.

### HSE7 **Engine**

Two Honda GX200 “Extreme” engines as supplied by RPM with seals intact.

Either standard GX200 Exhaust or RPM supplied DEP Exhaust may be used.

Buy Back – all GX200 Extreme engines are subject to a buy back clause. *See ‘Buy Back’ section 10 within these Technical Regulations for explanation.*

### HSE8 **Engine Modifications**

No other modifications are permitted and all seals must remain intact.

The use of a single in-line fuel filter is permitted.

### HSE14 **Weight**

Minimum weight is 185kg including the driver.

A maximum of 25kg ballast may be carried. Any competitor unable to meet the minimum weight when carrying maximum ballast may be subject to additional performance restrictions.

### HSE15 **Number Plates**

Yellow with Black numbers are advised but not compulsory. Numbers are to be displayed on the front, rear and sides as mandatory. They should be of such font and size that they are easily recognised by officials.

## 9. Libre

### L1 **Introduction**

Class from 16 years of age.

Regulations under this section apply in addition to those in Section 1.

### L2 **Chassis**

Any recognisable kart chassis.

### L3 **Modifications**

The only additions permitted, along with modifications solely concerned with their fitment are: seats, Nassau Panels, Front Fairing and Ballast to achieve the required weight or for repair purposes.

### L4 **Floor Tray**

There must be a rigid, flat floor from the seat to the front and side chassis members, secured to them so as to prevent the driver's feet from sliding off. The rear-most point of the floor tray must not project beyond the middle of the chassis cross rail located under the front of the seat. Any perforation of the floor other than for the attachment of ballast and other applicable accessories must be a production feature and be homologated as such. If perforated, the holes must not have a diameter exceeding 10mm.

### L5 **Bodywork and Bumpers**

All karts must be fitted with bumpers and bodywork providing front, rear and side protection. Bodywork must be recognised kart bodywork. Any modification to the aerodynamic or structural properties is not permitted.

The Rear Bumper should be CIK Plastic or metal, must be secured to the kart at two points and cover 50% of each of the back tyres as a minimum.

All bodywork should be securely attached to the kart at all times.

### L6 **Seat**

Seat must be a recognised kart seat. Additional bolt on seat stays/mountings are permitted, position is free. Bolt fixings must be used at each end of the seat stays. The seat must not show damage or fatigue due the placement of ballast attached to the seat.

### L7 **Engine**

Open for recognised Kart engine, however, the size, weight and mounting must be deemed safe by the scrutineer.

### L8 **Engine Modifications**

Engines may be modified

### L9 **Transmission**

Direct from the engine to the axle via a single length of chain. All methods of chain oiling and greasing while the kart is in motion are forbidden. All karts must have chain guard strips or fully enclosed transmission guards fitted.

- L10      **Axle**  
Any recognised kart axle, although any modification from manufacturers specifications are not permitted.
- L11      **Brakes**  
One hydraulic or mechanical brake should be fitted to the rear axle only. The brake disc must be made of metal but can be vented or drilled. A calliper with a maximum of four pistons may be used with two per side of the disc. The brake linkage must be duplicated. A brake safety wire should be in place in case of linkage failure.
- L12      **Wheels**  
Wheels may be of two piece or mono aluminium construction, i.e. spun aluminium, diecast aluminium or sandcast aluminium. Hubs may be separate or integral.
- L13      **Tyres**  
Open
- L14      **Weight**  
Minimum 160kg, including the driver. Maximum 190kg, including the driver  
  
A maximum of 25kg ballast may be carried. Any competitor unable to meet the minimum weight when carrying maximum ballast may be subject to additional performance restrictions.
- L15      **Number Plates**  
Green with White numbers are advised but not compulsory. Numbers are to be displayed on the front, rear and sides as mandatory. They should be of such font and size that they are easily recognised by officials.
- L16      **Age**  
For 16 year-olds onwards.



## 10. Buy Back

For clarification, as per the RPM GX200 “Extreme” regulations, at the end of any race meeting any driver has the opportunity to purchase the engine(s) from any of the other karts entered in their race class. Junior and Senior Extreme Prokart engines MUST be purchased as the pair that raced.

Before karts are released from Parc Ferme after the completion of the Final, any driver wishing to purchase engine(s) under Buy Back must notify the Clerk of the Course of their intention. Should more than one driver wish to activate the Buy Back of a set of engines, the driver who lodged the earliest notice of intention and payment in full so be deemed the purchaser.

Any kart(s) not subject to a Buy Back claim may then be released from Parc Ferme, while those subject to a Buy Back claim must remain. The claimant will then have up to 30 minutes to present payment in cash (of the RRP of the RPM GX200 Extreme Engine(s) being purchased + £50 carriage per engine).

Once full payment has been received, the engine(s) will then be removed under supervision of the Clerk of the Course and supplied to the new owner minus clutches, exhausts, engine mounts, magnetic dip sticks (original plastic must be provided as alternative) and oil (at sellers discretion).

Failure by any competitor to sell their engine(s) under buyback will result in exclusion from the meeting.

A driver may only purchase one engine or pair of engines during any race meeting.