



## Super Single Series 2022 TECHNICAL REGULATIONS

### **PART A: General.**

The purpose of these technical regulations is to ensure that all competitors will, as far as possible, be able to compete with equipment that is of an equivalent standard. It is also the objective of these technical regulations to contain the costs of acquiring and maintaining equipment.

#### **1. Kart Numbers.**

- 1.1 Each kart shall be identified prior to scrutineering by opaque flexible plastic number plates affixed to the kart itself and facing front and to the rear. Bibs & rear bumpers,
  1. Minions 10cm (100mm) minimum
  2. Midgets 12cm (120mm) minimum.
  3. All other Classes 14cm (140mm) minimum.
- 1.2 Competition numbers must be present and legible on the side pods in the same upright bold fonts as above. The backing for these side pod numbers must be yellow. No other colours are permitted. For the purpose of TV & marketing, the recommended size for these numbers is a minimum of 80mm.
- 1.3 The numbers must be standard font "ARIAL" or similar and in an unbroken black colour without borders, edging or shadow. For the purpose of timekeeping all race numbers must be bold upright (no italics) script type numbers are not permitted. Neither neon coloured numbers and or backgrounds are permitted
- 1.4 It is permissible that numbers and background may be painted on bodywork having a flat or minimal curved surface providing the numbers can be easily read at an oblique angle 45° from the front by the Timekeepers/Lap Scorers.
- 1.5 Any team not conforming may be black flagged.
- 1.6 **Super Single class reserves the first 10 numbers in the allocated number series to denote the finishing order of the previous year Championship results.** Any teams selecting other numbers must advise the Organizer within 10 days of the first event. A kart that is sold to a new team, or a team that changes its name, during the current season, must apply for a new number. Numbers allocated to teams will become available for reallocation if a team fails to register for the new season.
- 1.7 Any other numbers must also be registered in the same time frame, if out of sequence, or special numbers.



## **2 The broader spectrum of Technical Control:**

- 2.1 The Organizer reserves the right to inspect or halt any kart which is deemed to have been illegally modified, in any way. If the motor/s has to be dismantled, the cost of reassembly is for the account of the owner of that kart.
- 2.2 Where not specifically mentioned in these technical rules, any change to the technical specifications of any kart is disallowed.
  - 2.2.1 This includes and is not limited to:
    - 2.2.1.1 Engines
    - 2.2.1.2 Drive Train
    - 2.2.1.3 Brakes
    - 2.2.1.4 Chassis
    - 2.2.1.5 Wheels
    - 2.2.1.6 Tyres
    - 2.2.1.7 Seats
    - 2.2.1.8 Rear Axle
    - 2.2.1.9 Side Pods and other plastics
    - 2.2.1.10 Fuel
- At any time, during or between events, the Organizer, the TC, or the Clerk of the course may be approached regarding this matter, providing the protest procedure per paragraph 13 of the General Rules and Regulations is adhered to. In the event of a dispute, any contravention of the technical regulations will be deemed to afford an advantage, until the contrary is proven beyond reasonable doubt, by the entrant/competitor.
- 2.3 Only homologated parts are accepted, except where specifically allowed, any other variations made are deemed to be illegal.
  - 2.3.1 This includes and is not limited to:
    - Adding additional components to any part of your engine and connected parts that are not specifically allowed in these rules. Should you wish to confirm technical validity of such, it must be presented to the committee first prior to race day for consideration before it being allowed by way of including it in this rules.
- 2.4 Teams remain responsible for the kart presented for scrutineering, and if found to be contravening specification, cannot blame a third party for the infringement.

## **3 Motor Inspection as a result of protest or Clerk of the Course instruction.**

- 3.1 The engine/s will be removed in parc ferme immediately after the completion of an event and placed in a sealed container. The team manager will sign the Notification to present engine/s for testing. The official appointed scrutineer will put the engine in question on the appointed dyno as a first procedure to confirm if the engine is running to the correct specifications and performance. During the dyno process the scrutineer will inspect all various components to ensure that they are within the parameters of the set rules and regulations. Should the dyno reading be that the engine is performing higher than specified, the scrutineer in conjunction with the specified engine builder will open the engine to check internal components. The scrutineer will submit a report to the event officials for adjudication of the protest. The inspection process may involve the stripping of the entire engine, which will require the replacement of certain parts and gaskets at a cost to the team or team that lodged the protest, depending if the protest is upheld or not.
- 3.2 The officials of the event will make a ruling. Once the ruling has been passed down to the competitor, the engine will be reassembled and sealed by the officially appointed scrutineer.
- 3.3 The engine/s will not be released back to the team until the cost of the inspection and where applicable, the stripping, assembly and parts have been paid to the organiser.
- 3.4 Please refer to section 6 for further details on Dyno procedures.



#### **4 Engine Inspection as result of broken seals.**

4.1 For the procedure for dyno and where applicable, stripping, assembling and sealing an engine/s as a result of broken seals please refer to paragraph 3 above.

#### **5 Voluntary and Mandatory dyno testing and sealing of engines.**

- 5.1 Teams may voluntarily submit their engines (with unbroken seals) for re-sealing and/or servicing at any time during the year.
- 5.2 Teams are required to present their engines for mandatory dyno of engines throughout the year according to below:
  - 5.2.1 All engines must be presented for dyno testing after every 5 events, but by no later than the 2nd race of the year.
  - 5.2.2 Where an engine has not been presented for mandatory dyno testing after 5 consecutive races, points will be withheld from that team for future events until testing has been done.
  - 5.2.3 The organiser will provide engine seal, result and dyno testing dates for all teams to view. A monthly schedule for Dyno test days will be posted on the Official SSS WhatsApp group
- 5.3 This will not involve a full engine strip, unless the officially appointed scrutineer finds an infringement of the technical regulations.
- 5.4 The cost for testing engines are for the competitor at the prevailing rate provided by the Organiser..
- 5.5 The cost for servicing will be at the current rate provided by the official engine builder per engine plus the cost of the new seals and any parts that may be required to bring engine into the required specifications.
- 5.6 Engines removed for testing need to include fuel line from the fuel pump onwards, as well as the exhaust system and throttle system.

**Note:** It is up to each team to determine whether any changes they make are accepted within the ambit of these rules. Any variance to these rules is considered a breach of these regulations.

#### **6 General Dyno Procedure:**

- 6.1 A set dyno day roster with available dates for the current month will be posted on the Official SSS WhatsApp group every month. The competitor can make contact with the official scrutineer to arrange for the specific time slot on the set day/s.
- 6.2 The competitor or the assigned engine builder brings the engine to Vereeniging Kart Circuit on the agreed date & time and the dyno process can commence immediately with the competitor present. Should the competitor wish not to remain present, the dyno process will continue without him and a dyno print out will be provided to the competitor on collection of the motor.
- 6.3 **Official results of the dyno will be handed to the competitor by means of a print out.** The Organiser will be receive a copy of each dyno report.
- 6.4 If engine is overpowered, changes will need to be made to bring the motor back into the right specifications. Seal will be broken, and changes made and resealed. It is for your cost to bring the motor back into spec if parts are required.
- 6.5 If the engine is overpowered and the official report provided by the engine builder states that it is overpowered because of incorrect parts being used or unauthorized changes made to the engine not within the rules, then the engine may be found to be illegal as a results of this. If the engine was pulled on a race day, the results for the day may be changed and the competitor disqualified from results if found illegal.



- 6.6 If engine is underpowered, changes can be done to bring back into spec at your request and at your cost. Seal will be broken and resealed once complete. It is for your cost to bring the motor back into spec.
- 6.7 When engine is pulled on a race day, it will be boxed and sealed in the presence of the COC, Scrutineer and competitor and will remain sealed until the day of the dyno. At least one additional Series advisor will be present during the dyno run as witness. The SSS Series will carry the cost of this dyno test session. Costs to bring the engine back into spec and sealed again if found overpowered will be for the competitor. It is the competitor's choice to bring back up to spec and sealed again if the motor is underpowered, this will be for their own cost too. If the motor is found to be illegal, it will be reported to the committee with a full report and the reasons for it being illegal.

**SPECIAL NOTE:** The process of executing a dyno run takes time and must be executed in a controlled environment by a trained professionals using specialist equipment. A typical dyno run can take up to 1 hour if there are no issues. Your motor is also inspected for technical compliance prior to the dyno run i.e. spark plugs, carburettor, exhaust etc. This takes time and must be conducted with focus and no distractions.



## **7 Mechanical changes and allowances during an event.**

- 7.1 Only one kart (chassis) may be used per team in any one event.
- 7.2 Any components may be changed during the race, including the motor/s, as long as the changes comply with the rules, and have been presented for scrutineering prior to being fitted.
- 7.3 All work/repairs on karts that require any kind of tool are to be carried out in the competitor's pit or designated pit area where drivers can safely work on their karts and not in the driver change/refuel area.
  - 7.3.1 This includes any work that requires cable ties or tape
  - 7.3.2 This includes any work that requires any kind of tool

## **8 To reduce costs, the following are NOT allowed.**

- 8.1 Special tyre changing equipment other than standard tyre changing tools supplied for use in karting
- 8.2 Tyre warmers or tyre chemicals.
- 8.3 No pit to driver communications.
- 8.4 On board tuning devices.
- 8.5 No fuel additives.
- 8.6 You MAY NOT open and build your own engines.
- 8.7 You MAY NOT use any other equipment on the engine assembly not permitted in these rules. It is expected that you race with parts as originally supplied and no modifications are allowed.

## **9 Transponders.**

- 9.1 Transponders must be mounted on the bib on a vertical line that intersects at 90 degrees to the horizontal line between the stub axles.

**NB: If it is not in these rules it is not permitted.**



## **PART B: ENGINES.**

**NB: It is not the responsibility of the engine builder to automatically increase the engine power to the maximum output allowed in these regulations. This will only be done at the specific instruction of the team as an extra cost modification.**

### **1. 390 CLASS (ENDURANCE AND SPRINT 390)**

#### **1.1. ENGINES**

- 1.1.1. Only Honda GX 390 model T1, T2 and H1 OEM engines or stock engines will be allowed to compete in the series. Engines supplied will be sealed, together with a dynamometer report indicating that the horsepower is within the following parameters.
- 1.1.2. Only OEM Honda or Hoffman carburettors with size .92 jet and standard emulsion tube are permissible.
- 1.1.3. All fuel pumps are permitted and are open to all brands, however, no enhancements may be made to the fuel line, fuel pump by means of jetting within the fuel line, modifying of a fuel pump etc.
- 1.1.4. Horsepower = Max: 22.5 as per the software output of the dynamometer calibrated at the beginning of the season.
- 1.1.5. The following modifications, to be carried out by the appointed engine builder only, will be permitted:
  - 1.1.5.1. The governor may be removed.
  - 1.1.5.2. The oil cut out relay may be removed.
  - 1.1.5.3. Accelerator linkages and routing are free. Only foot operated accelerator mechanisms are permitted.
  - 1.1.5.4. Air induction is by means of the standard OEM air filter, or as an option, the K&N Red filter may be substituted.
  - 1.1.5.5. Exhaust and manifold. Only standard exhausts and manifolds as supplied with engine package are permitted. Specific drawing and measurements are available for the agreed specs.
  - 1.1.5.6. Spark plugs. Only NGK BPR6ES spark plugs are permitted. Spark plugs must remain standard. Filing of electrodes or machining of thread body to allow indexing is strictly forbidden.
  - 1.1.5.7. An OEM electric self-starter may be fitted.
- 1.1.6. All motors must remain sealed at all times. Broken seals will lead to exclusion from the results and technical check of the motor.
- 1.1.7. Where necessary for repairs, and to keep costs under control, the Organizer in conjunction with the official Engine builders may substitute OEM Honda parts with compatible OEM Hoffmann parts and vice versa.
- 1.1.8. New engines supplied with a temporary seal, may be run in and used in ONE race. The engine MUST be returned to the officially appointed engine builder after one race, to be dynamometer tested and a permanent seal fitted. Failure to return the engine before the next race will result in the engine being impounded at the next race to be dynamometer tested and sealed. Penalty as per penalty schedule.
- 1.1.9. An engine may be changed during an event provided it has been dyno tested and sealed by the officially appointed scrutineer, scrutinised and a scrutineering sticker affixed for that event. Penalty as per penalty schedule.

#### **1.2. Drive train.**

- 1.2.1. The drive train consisting of clutch, sprockets and chain will be supplied with the engine, when purchased.



- 1.2.2. Final drive. The final drive will be by chain and sprocket as specified by the organiser.  
Front sprocket = 15 teeth of .428 pitch      Rear sprocket = 45 teeth of .428 pitch      Chain = .428 pitch  
**NOTE: The use of a 15 tooth clutch sprocket will be permissible for all races at Vereeniging Kart Circuit & Zwartkops. The 17 tooth sprocket will ONLY be permitted for use at Formula K & Idube.**
- 1.2.3. Clutch. Noram Premier centrifugal dry type clutch with blue springs as supplied by the organiser, to allow a clutch engagement speed of 2200rpm.  
**NOTE: The use of the local manufactured clutch is allowed, however no modifications may be made to these clutches as supplied.**

### 1.3. Brakes and Braking system.

- 1.3.1. The brake system is free within the following parameters.
- 1.3.1.1. Single disc acting on the rear axle.
  - 1.3.1.2. One single piston OEM brake calliper as supplied with chassis.
  - 1.3.1.3. One two piston aftermarket replacement brake calliper of the following type:
    - 1.3.1.3.1. Speed EVO system. Homologation number: CIK/FIA153-16/FR/14 17-18/FR/17.
- 1.3.2. Kelgate
- 1.3.3. A back up cable operated brake linkage must be fitted to all karts.

### 1.4. Chassis.

- 1.4.1. Chassis are not controlled, but must be FIA/CIK homologated chassis.

### 1.5. Wheels and tyres.

- 1.5.1. Only full slick tyres are allowed
- 1.5.2. Front maximum wheel width between bead = 135mm . Rear wheel width between bead = 215mm
- 1.5.2.1. Kindly ensure your wheels comply with this rule to avoid penalty
- 1.5.3. ENDURANCE TYRES:
- 1.5.3.1. Tyres front = 10x4.60 - 5, MG compound rating RL1.
  - 1.5.3.2. Tyres rear = 11x7.10 -5, MG compound rating RL1.
  - 1.5.3.3. Endurance teams may use a maximum of 16 tyres for a full season, except where explicitly allowed otherwise in the regulations for a particular event. Refer to penalty schedule for non-compliance.
- 1.5.4. SPRINT 390 TYRES:
- 1.5.4.1. Tyres front = 10x4.60 - 5, MG compound rating RL1.
  - 1.5.4.2. Tyres rear = 11x7.10 -5, MG compound rating RL1.
  - 1.5.5.3 Sprint teams may use a maximum of 12 tyres of VK/RL1 compound tyres for a full season. Teams may purchase and use all allocated sets of tyres for the entire year upfront if they wish and alternate use of each set between race meetings. Tyres cannot be mixed at the same race meeting. Once a set of tyres have been registered/scrutineered for use for that race meeting unless allowed by the COC under exceptional circumstances (damaged tyres).
  - 1.5.6. It is prohibited to use any chemical treatment, or other means to artificially enhance the performance of tyres during official practice, qualifying and racing.
  - 1.5.7. All tyres must be registered by the Chief Scrutineer or his assistant. It is the team's responsibility to ensure all race tyres are registered before an event, or that previously used race tyres are on the kart





before scrutinizing on the day. Tyres are marked and registered against the name of the competing team.

1.5.8.A register will be kept, noting all team tyre serials and event dates.

1.5.9.Note: A race meeting (event) may consist of more than one heat

1.5.10. From the start of any event, only the marked tyres may be used. Tyre identification may be checked at any time during an event. Tyre/s rendered unusable, in the opinion of the Clerk of the course and the Technical Consultant, during an event may be replaced. They must be replaced with used tyres, whether previously marked or not. The replaced tyre/s must be marked/remarked, before being fitted under the control of the Technical Consultant. No penalty applies if this procedure is followed.

1.6. An electronic log will be implemented to control the above regulations. (Only officially appointed persons can enter the data into the log.)

#### **1.7. Rear axle.**

1.7.1. The rear axle will be of hollow steel with an outside diameter of 50mm or 40mm (depending on the chassis standard fittings). No differential of any type is permitted. Maximum width of the rear axle, measured between the outer edges of the wheel rims, must not EXCEED 1400mm

#### **1.8. Minimum weight.**

1.8.1. The minimum weight of the kart including driver will be 185kg (One Hundred and Eighty Five Kilograms) from commencement of free practice. All ballast MUST be attached to the kart chassis in a suitable weight bracket or fixed to the chassis. See Penalty Schedule document for underweight penalties

1.8.2. Penalty for infringing: 1.8.1 Underweight penalty as per penalty schedule

#### **1.9. Seats.**

1.9.1. Only seats approved by the Organizer may be used.

#### **1.10 Side pods, bibs, rear bumpers and nose cones:**

All karts will be equipped with the regulation side pods, bibs and nose cones. As specified by the organizer or FIA/CIK homologated units. They shall remain in position at all times. Substitutes allowed. Non CIK/FIA, including but not limited to, fibreglass equipment will NOT be permitted on circuit.

#### **1.11 Fuel.**

1.1.1.Teams will provide their own fuel for practice qualifying and race. Only 93 or 95 Octane pump fuel is permitted. For the race, fuel must be placed, in suitable containers clearly marked with the team name, in the refuel area. Refer to rule 12 of the Rules and Regulations for refuelling procedure.

1.1.2. Fuel may not be stored in competitor pits after the start of free practice.

1.1.3. Fuel additives are not permitted. The organizer reserves the right to replace any fuel suspected of having additives.

1.1.4. ANY modifications to the flow of fuel from the fuel tank through the carburettor are not allowed. This includes modifications and/or addition of parts to fuel pumps, fuel lines, carburettors, fuel coolers and





any other part that controls the delivery of fuel to the engine. This will immediately be deemed an advantage over others and penalty will be applied as per the penalty schedule.

## **1.2. Repairs, servicing and maintenance of engines.**

- 1.2.1. Routine servicing and maintenance, such as oil, filters, spark plug changes, clutch lubrication and tappet clearance settings may be undertaken by the team. Any repair or maintenance that requires the engine seal to be broken **MUST** be undertaken by the officially appointed Engine Builders and dyno tested and sealed by the Official scrutineer.
- 1.2.2. All engines will be sealed, at all times, by the officially appointed Scrutineer.
- 1.2.3. Should an engine/s need to be worked on, parts replaced, or a general check be done to the motor\s, the following procedure will be adhered to:
- 1.2.4. The engine will be delivered to the officially appointed engine builder. All work will be carried out by the officially appointed engine builder, after which the motor\s will be checked, dyno tested and resealed by the official appointed scrutineer. Numbered seals will be fitted to each engine prior to delivery by the Organizer. These must remain intact. A broken seal will result in exclusion.
- 1.2.5. In order to control the parts used and or replaced, only OEM engine spares available from an appointed OEM agent will be accepted as replacement engine parts. Any parts requiring further machining will be carried out by an approved engineering company. During this stage the balance of the motor\s will remain in the custody of the officially appointed engine builder until such time as the refurbished parts are returned and checked for compliance by the Scrutineer of the series.
- 1.2.6. The only person allowed to strip and reassemble any motor/s is the officially appointed engine builder or his appointed representative for each class. Motors must be presented with intact seals.

**It is the explicit wish of the Organizer that this series becomes a training ground and a natural outlet for persons wishing to compete under normal motor sport conditions. The series is designed to be affordable, fair and for your enjoyment and your training to greater heights, let's keep it that way.**



## **Minions 50CC CLASS**

### **2. ENGINES**

- 2.1.1** Only Honda GX H50, stock engines will be allowed to compete in the series. Engines supplied will be sealed.
- 2.1.2** Horsepower = Max: Engine too small to turn the dyno. Run as supplied
- 2.1.3** The following modifications, to be carried out by the appointed engine builder only, will be permitted:
- 2.1.4** The governor may be removed.
- 2.1.5** The oil cut out relay may be removed.
- 2.1.6** Accelerator will be supplied with the engines. Only foot operated accelerator mechanisms are permitted.
- 2.1.7** Air induction is by means of the standard OEM air filter. The inner components of the air filter may not be modified or tamper with in order to reduce or increase air flow.
- 2.1.8** Only manifolds and silencers as supplied with the engines package are permitted.
- 2.1.9** Spark plugs. Only NGKCR5 spark plugs are permitted. Spark plugs must remain standard. Filing of electrodes or machining of thread body to allow indexing is strictly forbidden.
- 2.1.10** All motors must remain sealed at all times. Broken seals will lead to exclusion from the results and technical check of the motor.
- 2.1.11** An engine may be changed during an event provided it has been sealed by the officially appointed Scrutineer, scrutinised and a scrutiniser's sticker affixed for that event. The engine may only be changed under the supervision of the scrutinizer  
Penalty as per penalty schedule.

### **2.2 Drive train.**

- 2.2.1** The drive train consisting of clutch, sprockets and chain will be supplied with the engine, when purchased.
- 2.2.2** Final drive. The final drive will be by chain and sprocket as specified by the organiser.
- 2.2.3** Front sprocket = 16 teeth of .219 pitch Rear sprocket = 89 teeth of .219 pitch Chain = .219 pitch
- 2.2.4** Clutch. Centrifugal as supplied by Engine Builder.

### **2.3 Brakes and Braking system.**

- 2.3.1** The brake system is free within the following parameters.
- 2.3.2** Single disc acting on the rear axle.
- 2.3.3** One single piston OEM brake calliper as supplied with chassis.
- 2.3.4** A back up cable operated brake linkage must be fitted to all karts.

### **2.4 Chassis**

- 2.4.1** Restricted to a Cadet Kart Chassis, Any Brand Chassis are free but must be FIA/CIK homologated chassis. Dispensation will be permitted to taller competitors on a case to case base to make use of the mini chassis. Weight parameters will remain the same.



## 2.5 Wheels and tyres.

- 2.5.1 Front maximum wheel width between bead = 115mm. Rear wheel base outer width of a maximum of 130mm. Kindly ensure your wheels comply with this rule to avoid penalty
- 2.5.2 Tyres front = MG SC Compound.
- 2.5.3 Tyres rear = MG SC Compound.
- 2.5.4 It is prohibited to use any chemical treatment, or other means to artificially enhance the **performance of tyres during official practice, qualifying and racing.**
- 2.5.5 Teams may use a maximum of 2 sets of tyres for a full season, except where explicitly allowed otherwise in the regulations for a particular event. Refer to penalty schedule for non-compliance.
- 2.5.6 All tyres must be registered/ marked by the Chief Scrutineer or his assistant. Marking will take the form of an encoded marker/impression or suitable indelible colouring configuration as deemed prudent by the technical committees. It is the team's responsibility to ensure new tyres are marked before an event, or that previously used race tyres are on the kart before scrutinizing on the day. Tyres are marked and registered against the name of the competing team.
- 2.5.7 A register will be kept, noting all team tyre markings and event dates.
- 2.5.8 ***Note: A race meeting (event) may consist of more than one heat***
- 2.5.9 From the start of any event, only the marked tyres may be used. Tyre identification may be checked at any time during an event. Tyre/s rendered unusable, in the opinion of the Clerk of the course and the Technical Consultant, during an event may be replaced. They must be replaced with used tyres, whether previously marked or not. The replaced tyre/s must be marked/remarked, before being fitted under the control of the Technical Consultant. No penalty applies if this procedure is followed.
- 2.5.10 An electronic log will be implemented to control the above regulations. (Only officially appointed persons can enter the data into the log.)
- 2.5.11 **Full wet weather tyres are not allowed.**

## 2.6 Rear axle.

- 2.6.1 The rear axle will be of hollow steel with an outside diameter of 25mm (depending on the chassis standard fittings). No differential of any type is permitted. Maximum width of the rear axle, measured between the outer edges of the wheel rims, must not exceed 1150mm.

## 2.7 Minimum weight.

- 2.7.1 **The minimum weight of the kart including driver will be 75kg from commencement of free practice. All ballast MUST be attached to the kart chassis in a suitable weight bracket. See penalty schedule for underweight penalties.**
  - 2.7.1.1 **Underweight as a result of losing a component.** At the sole discretion and under supervision of the Clerk of the Course or Chief Scrutineer, the kart, with the same driver, may be re-weighed after the component has been replaced and before re-joining the race, **without penalty**. The Clerk of the Course or Chief Scrutineer must sign off the weight record. Failure to re-weigh the kart with same driver, under supervision of the Clerk of the Course or Chief Scrutineer, before re-joining the race will result in disqualification even if the kart is subsequently compliant with Technical rule 8.



## **2.8 Seats.**

**2.8.1** Seats may consist of any material, but must be CIK/FIA approved.

## **2.9 Side pods, bibs, rear bumpers and nose cones:**

**2.9.1** All karts will be equipped with the regulation side pods, bibs and nose cones. As specified by the organizer or CIK/FIA homologated units. They shall remain in position at all times. No substitutes allowed. Non CIK/FIA, including but not limited to, fibreglass equipment will NOT be permitted on circuit.

## **2.10 Fuel.**

**2.10.1** Teams will provide their own fuel for practice qualifying and race. Only 93 or 95 Octane pump fuel is permitted. For the race, fuel must be placed, in suitable containers clearly marked with the team name, in the refuel area. Refer to rule 12 of the Rules and Regulations for refuelling procedure.

**2.10.2** Fuel may not be stored in competitor pits after the start of free practice.

**2.10.3** Penalty as per penalty schedule.

**2.10.4** ANY modifications to the flow of fuel from the fuel tank to the carburettor are not allowed. This includes modifications and/or addition of parts to fuel pumps, fuel lines, carburettors and any other part that controls the delivery of fuel to the engine. This will immediately be deemed an advantage over others and penalty will be applied as per the penalty schedule.

## **2.11 Repairs, servicing and maintenance of engines.**

**2.11.1** Routine servicing and maintenance, such as oil, filters, spark plug changes, clutch lubrication and tappet clearance settings may be undertaken by the team. Any repair or maintenance that requires the engine seal to be broken MUST be undertaken by the officially appointed Engine Builder and sealed by the Official scrutineer.

**2.11.2** All engines will be sealed, at all times, by the officially appointed Scrutineer.

**2.11.3** Should an engine/s need to be worked on, parts replaced, or a general check be done to the motor\,s, the following procedure will be adhered to:

**2.11.4** The engine will be delivered to the officially appointed engine builder. All work will be carried out by the officially appointed engine builder, after which the motor\,s will be checked and resealed by the official appointed scrutineer. Numbered seals will be fitted to each engine prior to delivery by the Organizer. These must remain intact. A broken seal will result in exclusion.

**2.11.5** In order to control the parts used and or replaced, only OEM engine spares available from an appointed OEM agent will be accepted as replacement engine parts. Any parts requiring further machining will be carried out by an approved engineering company. During this stage the balance of the motor\,s will remain in the custody of the officially appointed engine builder until such time as the refurbished parts are returned and checked for compliance by the Scrutineer of the series.

**2.11.6** The only person allowed to strip and reassemble any motor/s is the officially appointed engine builder or his appointed representative for each class. Motors must be presented with intact seals.

**It is the explicit wish of the Organizer that this series becomes a training ground and a natural outlet for persons wishing to compete under normal motor sport conditions. The series is designed for your enjoyment and your training to greater heights, let's keep it that way.**



### 3 MIDGET CLASS

#### 3.1 ENGINES

- 3.1.1 Only Honda GX 160 stock engines will be allowed to compete in the series. Engines supplied will be sealed, together with a dynamometer report indicating that the horsepower is within the following parameters.
- 3.1.2 Only OEM Honda or Hoffman carburettors with size .75 jet and standard emulsion tube are permissible.
- 3.1.3 All fuel pumps are permitted and are open to all brands, however, no enhancements may be made to the fuel line, fuel pump by means of jetting within the fuel line, modifying of a fuel pump etc.
- 3.1.4 Horsepower = **Max: 10.2hp** as per the software output of the dynamometer calibrated at the beginning of the season. Upgrades to the dynamometer's sensors and software modules may require re-calibration of the dynamometer itself, resulting in a change of the maximum horsepower reading. This may result in a different reading as per the regulations and members will be notified of this when the dynamometer changes. All care is taken to ensure that when re-calibration occurs resulting in a change in readings, the maximum output reported by the software is still in line with the series' base tests at the beginning of the season. So in the event the dynamometer has a different reading to the base reading, all new tests will be conducted according to the new base test results.
- 3.1.5 The following modifications, to be carried out by the appointed engine builder only, will be permitted:
- 3.1.6 The governor may be removed.
- 3.1.7 The oil cut out relay may be removed.
- 3.1.8 Accelerator will be supplied with the engines. Only foot operated accelerator mechanisms are permitted.
- 3.1.9 Air induction is by means of the standard OEM air filter, or as an option, the green air filter may be substituted.
- 3.1.10 Only manifolds and silencers as supplied with the engines package are permitted. Specific drawing and measurements are available for the agreed specs.
- 3.1.11 Spark plugs. Only NGK BPR6ES spark plugs are permitted. Spark plugs must remain standard. Filing of electrodes or machining of thread body to allow indexing is strictly forbidden.
- 3.1.12 All motors must remain sealed at all times. Broken seals will lead to exclusion from the results and technical check of the motor.
- 3.1.13 New engines supplied with a temporary seal, may be run in and used in ONE race. The engine MUST be returned to the officially appointed scrutineer after one race, to be dynamometer tested and a permanent seal fitted. Failure to return the engine before the next race will result in the engine being impounded at the next race to be dynamometer tested and sealed .
- 3.1.14 An engine may be changed during an event provided it has been dyno tested and sealed by the officially appointed Scrutineer, scrutinised and a scrutiniser's sticker affixed for that event. The engine may only be changed under the supervision of the scrutinizer  
Penalty as per penalty schedule.

#### 3.2 Drive train.

- 3.2.1 The drive train consisting of clutch, sprockets and chain will be supplied with the engine, when purchased.
- 3.2.2 Final drive. The final drive will be by chain and sprocket as specified by the organiser.



- 3.2.3 Front sprocket = 20 teeth of .219 pitch Rear sprocket = 68 teeth of .219 pitch Chain = .219 pitch
- 3.2.4 Clutch. Centrifugal as supplied by Engine Builder. Magnum centrifugal dry type clutch with white springs as supplied by the organiser.

### 3.3 Brakes and Braking system.

- 3.3.1 The brake system is free within the following parameters.
- 3.3.2 Single disc acting on the rear axle.
- 3.3.3 One single piston OEM brake calliper as supplied with chassis.
- 3.3.4 One two piston aftermarket replacement brake calliper of the following type: MA20 with Homologation code: 09/RFR/20 as supplied by 4 stroke workshop.
- 3.3.5 A back up cable operated brake linkage must be fitted to all karts.

### 3.4 Chassis.

- 3.4.1 Restricted to a Mini Kart Chassis , Any Brand Chassis are free but must be FIA/CIK homologated chassis.

### 3.5 Wheels and tyres.

- 3.5.1 Front maximum wheel width between bead = 135mm . Rear wheel base outer width of a maximum of 1110mm.
- 3.5.2 Kindly ensure your wheels comply with this rule to avoid penalty
- 3.5.3 Tyres front = 10.0-5 x 4.0, MG SC Compound.
- 3.5.4 Tyres rear = 11.0-5 x 5.0, MG SC Compound.
- 3.5.5 It is prohibited to use any chemical treatment, or other means to artificially enhance the **performance of tyres during official practice, qualifying and racing.**
- 3.5.6 Teams may use a maximum of 8 tyres for a full season, except where explicitly allowed otherwise in the regulations for a particular event. Refer to penalty schedule for non-compliance.
- 3.5.7 All tyres must be registered/ marked by the Chief Scrutineer or his assistant. Marking will take the form of an encoded marker/impression or suitable indelible colouring configuration as deemed prudent by the technical committees. It is the team's responsibility to ensure new tyres are marked before an event, or that previously used race tyres are on the kart before scrutinizing on the day Tyres are marked and registered against the name of the competing team. A register will be kept, noting all team tyre markings and event dates.
- 3.5.8 **Note: A race meeting (event) may consist of more than one heat**
- 3.5.9 From the start of any event, only the marked tyres may be used. Tyre identification maybe checked at any time during an event. Tyre/s rendered unusable, in the opinion of the Clerk of the course and the Technical Consultant, during an event may be replaced. They must be replaced with used tyres whether previously marked or not. The replaced tyre/s must be marked/remarked, before being fitted under the control of the Technical Consultant. No penalty applies if this procedure is followed.
- 3.5.10 An electronic log will be implemented to control the above regulations. (Only officially appointed persons can enter the data into the log)  
**Full wet weather tyres are not allowed.**





### 3.6 Rear axle.

- 3.6.1 The rear axle will be of hollow steel with an outside diameter of 30mm (depending on the chassis standard fittings). No differential of any type is permitted. Maximum width of the rear axle, measured between the outer edges of the wheel rims, must not EXCEED 1150mm

### 3.7 Minimum weight.

- 3.7.1 **The minimum weight of the kart including driver will be 110kg from commencement of free practice. All ballast MUST be attached to the kart chassis in a suitable weight bracket. See penalty schedule for underweight penalties.**
- 3.7.2 **Underweight as a result of losing a component.** At the sole discretion and under supervision of the Clerk of the Course or Chief Scrutineer, the kart, with the same driver, may be re-weighed after the component has been replaced and before re-joining the race, **without penalty**. The Clerk of the Course or Chief Scrutineer must sign off the weight record. Failure to re-weigh the kart with same driver, under supervision of the Clerk of the Course or Chief Scrutineer, before re-joining the race will result in disqualification even if the kart is subsequently compliant with Technical rule 8.

### 3.8 Seats.

- 3.8.1 Seats may consist of any material, but must be CIK/FIA approved.

### 3.9 Side pods, bibs, rear bumpers and nose cones:

- 3.9.1 All karts will be equipped with the regulation side pods, bibs and nose cones. As specified by the organizer or CIK/FIA homologated units. They shall remain in position at all times. No substitutes allowed. Non CIK/FIA, including but not limited to, fibreglass equipment will NOT be permitted on circuit.

### 3.10 Fuel.

- 3.10.1 Teams will provide their own fuel for practice qualifying and race. Only 93 or 95 Octane pump fuel is permitted. For the race, fuel must be placed, in suitable containers clearly marked with the team name, in the refuel area. Refer to rule 12 of the Rules and Regulations for refuelling procedure.
- 3.10.2 Fuel may not be stored in competitor pits after the start of free practice.

Penalty as per penalty schedule.

- 3.10.3 ANY modifications to the flow of fuel from the fuel tank to the carburettor are not allowed. This includes modifications and/or addition of parts to fuel pumps, fuel lines, carburettors and any other part that controls the delivery of fuel to the engine. This will immediately be deemed an advantage over others and penalty will be applied as per the penalty schedule.

### 3.11 Repairs, servicing and maintenance of engines.

- 3.11.1 Routine servicing and maintenance, such as oil, filters, spark plug changes, clutch lubrication and tappet clearance settings may be undertaken by the team. Any repair or maintenance that requires the engine



seal to be broken MUST be undertaken by the officially appointed Scrutineer and dyno tested and sealed by the Official scrutineer..

- 3.11.2 All engines will be sealed, at all times, by the officially appointed Scrutineer.
- 3.11.3 Should an engine/s need to be worked on, parts replaced, or a general check be done to the motor\s, the following procedure will be adhered to:
- 3.11.4 The engine will be delivered to the officially appointed engine builder. All work will be carried out by the officially appointed engine builder, after which the motor\s will be checked, dyno tested and resealed by the official appointed scrutineer. Numbered seals will be fitted to each engine prior to delivery by the Organizer. These must remain intact. A broken seal will result in exclusion.
- 3.11.5 In order to control the parts used and or replaced, only OEM engine spares available from an appointed OEM agent will be accepted as replacement engine parts. Any parts requiring further machining will be carried out by an approved engineering company. During this stage the balance of the motor\s will remain in the custody of the officially appointed engine builder until such time as the refurbished parts are returned and checked for compliance by the Scrutineer of the series.
- 3.11.6 The only person allowed to strip and reassemble any motor/s is the officially appointed engine builder or his appointed representative for each class. Motors must be presented with intact seals.

**It is the explicit wish of the Organizer that this series becomes a training ground and a natural outlet for persons wishing to compete under normal motor sport conditions. The series is designed for your enjoyment and your training to greater heights, let's keep it that way.**



## 4 300 JNR CLASS

### 4.1 ENGINES

- 4.1.1 Only Honda GX 390 model T1, T2 and H1 OEM engines or stock engines will be allowed to compete in the series. Engines supplied will be sealed, together with a dynamometer report indicating that the horsepower is within the following parameters.
- 4.1.2 Only OEM Honda or Hoffman carburetors with size .92 jet and standard emulsion tube are permissible.
- 4.1.3 All fuel pumps are permitted and are open to all brands, however, no enhancements may be made to the fuel line, fuel pump by means of jetting within the fuel line, modifying of a fuel pump etc.
- 4.1.4 Horsepower = Max: **TBC** as per the software output of the dynamometer calibrated at the beginning of the season.
- 4.1.5 The following modifications, to be carried out by the appointed engine builder only, will be permitted:
  - 1. Motor will be detuned to bring horsepower within the 300cc spec.
  - 2. The governor may be removed.
  - 3. The oil cut out relay may be removed.
  - 4. Accelerator linkages and routing are free. Only foot operated accelerator mechanisms are permitted.
  - 5. Air induction is by means of the standard OEM air filter, or as an option, the K&N Red filter may be substituted.
  - 6. Exhaust and manifold. Only standard exhausts and manifolds as supplied with engine package are permitted. Specific drawing and measurements are available for the agreed specs.
  - 7. Spark plugs. Only NGK BPR6ES spark plugs are permitted. Spark plugs must remain standard Filing of electrodes or machining of thread body to allow indexing is strictly forbidden.
  - 8. An OEM electric self-starter may be fitted.
- 4.1.6 All motors must remain sealed at all times. Broken seals will lead to exclusion from the results and technical check of the motor.
- 4.1.7 Where necessary for repairs, and to keep costs under control, the Organizer in conjunction with the official Engine builders may substitute OEM Honda parts with compatible OEM Hoffmann parts and vice versa.
- 4.1.8 New engines supplied with a temporary seal, may be run in and used in ONE race. The engine MUST be returned to the officially appointed engine builder after one race, to be dynamometer tested and a permanent seal fitted. Failure to return the engine before the next race will result in the engine being impounded at the next race to be dynamometer tested and sealed. Penalty as per penalty schedule.
- 4.1.9 An engine may be changed during an event provided it has been dyno tested and sealed by the officially appointed scrutineer, scrutinised and a scrutineering sticker affixed for that event. Penalty as per penalty schedule.

### 4.2 Drive train.

- 4.2.1 The drive train consisting of clutch, sprockets and chain will be supplied with the engine, when purchased.
- 4.2.2 Final drive. The final drive will be by chain and sprocket as specified by the organiser.  
Front sprocket = 15 teeth of .428 pitch      Rear sprocket = 45 teeth of .428 pitch      Chain = .428 pitch



**NOTE: The use of a 15 tooth clutch sprocket will be permissible for all races at Vereeniging Kart Circuit & Zwartkops. The 17 tooth sprocket will ONLY be permitted for use at Formula K & Idube.**

- 4.2.3** Clutch. Noram Premier centrifugal dry type clutch with blue springs as supplied by the organiser, to allow a clutch engagement speed of 2200rpm.

**NOTE: The use of the local manufactured clutch is allowed, however no modifications may be made to these clutches as supplied.**

#### **4.3 Brakes and Braking system.**

- 4.3.1** The brake system is free within the following parameters.

4.3.1.1 Single disc acting on the rear axle.

4.3.1.2 One single piston OEM brake calliper as supplied with chassis.

4.3.1.3 One two piston aftermarket replacement brake calliper of the following type:

4.3.1.3.1 Speed EVO system. Homologation number: CIK/FIA153-16/FR/14 17-18/FR/17.

- 4.3.2** Kelgate

- 4.3.3** A back up cable operated brake linkage must be fitted to all karts.

#### **4.4 Chassis.**

- 4.4.1** Chassis are not controlled, but must be FIA/CIK homologated chassis.

#### **4.5 Wheels and tyres.**

- 4.5.1** Only full slick tyres are allowed

- 4.5.2** Front maximum wheel width between bead = 135mm . Rear wheel width between bead = 215mm

4.5.2.1 Kindly ensure your wheels comply with this rule to avoid penalty

- 4.5.3** SPRINT 300 TYRES:

4.5.3.1 Tyres front = 10x4.60 - 5, MG compound rating RL1.

4.5.3.2 Tyres rear = 11x7.10 -5, MG compound rating RL1.

- 4.5.4** Teams may use a maximum of 12 tyres of VK/RL1 compound tyres for a full season. Teams may purchase and use all allocated sets of tyres for the entire year upfront if they wish and alternate use of each set between race meetings. Tyres cannot be mixed at the same race meeting. Once a set of tyres have been registered/scrutineered for use for that race meeting unless allowed by the COC under exceptional circumstances (damaged tyres).

- 4.5.5** It is prohibited to use any chemical treatment, or other means to artificially enhance the performance of tyres during official practice, qualifying and racing.

- 4.5.6** All tyres must be registered by the Chief Scrutineer or his assistant. It is the team's responsibility to ensure all race tyres are registered before an event, or that previously used race tyres are on the kart before scrutinizing on the day. Tyres are marked and registered against the name of the competing team.

- 4.5.7** A register will be kept, noting all team tyre serials and event dates.

- 4.5.8** Note: A race meeting (event) may consist of more than one heat

- 4.5.9** From the start of any event, only the marked tyres may be used. Tyre identification maybe checked at any time during an event. Tyre/s rendered unusable, in the opinion of the Clerk of the course and the Technical Consultant, during an event may be replaced. They must be replaced with used tyres,



whether previously marked or not. The replaced tyre/s must be marked/remarked, before being fitted under the control of the Technical Consultant. No penalty applies if this procedure is followed.

- 4.6 An electronic log will be implemented to control the above regulations. (Only officially appointed persons can enter the data into the log.)

#### **4.7 Rear axle.**

- 4.7.1 The rear axle will be of hollow steel with an outside diameter of 50mm or 40mm (depending on the chassis standard fittings). No differential of any type is permitted. Maximum width of the rear axle, measured between the outer edges of the wheel rims, must not EXCEED 1400mm

#### **4.8 Minimum weight.**

- 4.8.1 The minimum weight of the kart including driver will be 145kg (One Hundred and Eighty Five Kilograms) from commencement of free practice. All ballast MUST be attached to the kart chassis in a suitable weight bracket or fixed to the chassis. See Penalty Schedule document for underweight penalties
- 4.8.2 Penalty for infringing: 1.8.1 Underweight penalty as per penalty schedule

#### **4.9 Seats.**

- 4.9.1 Only seats approved by the Organizer may be used.

#### **1.10 Side pods, bibs, rear bumpers and nose cones:**

All karts will be equipped with the regulation side pods, bibs and nose cones. As specified by the organizer or FIA/CIK homologated units. They shall remain in position at all times. Substitutes allowed. Non CIK/FIA, including but not limited to, fibreglass equipment will NOT be permitted on circuit.

#### **1.11 Fuel.**

- 4.9.2 Teams will provide their own fuel for practice qualifying and race. Only 93 or 95 Octane pump fuel is permitted. For the race, fuel must be placed, in suitable containers clearly marked with the team name, in the refuel area. Refer to rule 12 of the Rules and Regulations for refuelling procedure.
- 4.9.3 Fuel may not be stored in competitor pits after the start of free practice.
- 4.9.4 Fuel additives are not permitted. The organizer reserves the right to replace any fuel suspected of having additives.
- 4.9.5 ANY modifications to the flow of fuel from the fuel tank through the carburettor are not allowed. This includes modifications and/or addition of parts to fuel pumps, fuel lines, carburettors, fuel coolers and any other part that controls the delivery of fuel to the engine. This will immediately be deemed an advantage over others and penalty will be applied as per the penalty schedule.



#### **4.10 Repairs, servicing and maintenance of engines.**

- 4.10.1** Routine servicing and maintenance, such as oil, filters, spark plug changes, clutch lubrication and tappet clearance settings may be undertaken by the team. Any repair or maintenance that requires the engine seal to be broken MUST be undertaken by the officially appointed Engine Builders and dyno tested and sealed by the Official scrutineer.
- 4.10.2** All engines will be sealed, at all times, by the officially appointed Scrutineer.
- 4.10.3** Should an engine/s need to be worked on, parts replaced, or a general check be done to the motor\,s, the following procedure will be adhered to:
- 4.10.4** The engine will be delivered to the officially appointed engine builder. All work will be carried out by the officially appointed engine builder, after which the motor\,s will be checked, dyno tested and resealed by the official appointed scrutineer. Numbered seals will be fitted to each engine prior to delivery by the Organizer. These must remain intact. A broken seal will result in exclusion.
- 4.10.5** In order to control the parts used and or replaced, only OEM engine spares available from an appointed OEM agent will be accepted as replacement engine parts. Any parts requiring further machining will be carried out by an approved engineering company. During this stage the balance of the motor\,s will remain in the custody of the officially appointed engine builder until such time as the refurbished parts are returned and checked for compliance by the Scrutineer of the series.
- 4.10.6** The only person allowed to strip and reassemble any motor/s is the officially appointed engine builder or his appointed representative for each class. Motors must be presented with intact seals.

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