Super Single Series
2024 TECHNICAL RULES & REGULATIONS

GENERAL RULES & REGULATIONS – TECHNICAL

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1. **GENERAL**.

1.1. 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.

2. **KART NUMBERS.**

2.1. 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, and side pods
   2.1.1. Minions 10cm (100mm) minimum
   2.1.2. Midgets 12cm (120mm) minimum.
   2.1.3. 300 JNR 14cm (140mm) minimum. (White background – black letters & number range between 300 – 399)
   2.1.4. 390 SNR 14cm (140mm) minimum. (Yellow background – black letters & number range between 1 – 299 & 400 - 999)

2.2. 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.

2.3. 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

2.4. 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.

2.5. Any team not conforming may be black flagged.

2.6. **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 re-allocation if a team fails to register for the new season.

2.7. Any other numbers must also be registered in the same time frame, if out of sequence, or special numbers.

3. THE BROADER SPECTRUM OF TECHNICAL CONTROL:

3.1. 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 re-assembly is for the account of the owner of that kart.

3.2. Where not specifically mentioned in these technical rules, any change to the technical specifications of any karts is disallowed.
   3.2.1. This includes and is not limited to:

3.2.1.1. Engines
3.2.1.2. Drive Train
3.2.1.3. Brakes

3.2.1.4. Chassis
3.2.1.5. Wheels
3.2.1.6. Tyres
3.2.1.7. Seats
3.2.1.8. Rear Axle
3.2.1.9. Side Pods and other plastics
3.2.1.10. Fuel

3.2.2. 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.

3.3. Only homologated parts are accepted, except where specifically allowed, any other variations made are deemed to be illegal. This includes and is not limited to:

3.3.1. 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.

3.4. Teams remain responsible for the kart presented for scrutineering, and if found to be contravening specification, cannot blame a third party for the infringement.

4. MOTOR INSPECTION AS A RESULT OF PROTEST OR CLERK OF THE COURSE INSTRUCTION.

4.1. 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 officially 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.

4.2. 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.

4.3. 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. Please refer to section 6 for further details on Dyno procedures.

5. ENGINE INSPECTION AS RESULT OF BROKEN SEALS.

5.1. 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.

6. VOLUNTARY AND MANDATORY DYNO TESTING AND SEALING OF ENGINES.

6.1. Teams may voluntarily submit their engines (with unbroken seals) for re-sealing and/or servicing at any time during the year.

6.2. Teams are required to present their engines for mandatory dyno of engines throughout the year according to below:

6.2.1. All engines must be presented for dyno testing after every 5 events, but by no later than the 2nd race of the year.

6.2.2. 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.

6.2.3. 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

6.3. This will not involve a full engine strip, unless the officially appointed scrutineer finds an infringement of the technical regulations.

6.4. The cost for testing engines are for the competitor at the prevailing rate provided by the Organiser.

6.5. Engines removed for testing need to include fuel line from the fuel pump onwards, as well as the exhaust system, the clutch 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.

7. GENERAL DYNO PROCEDURE:

7.1. 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.

7.2. 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 upon collection of the motor.

7.3. **Official results of the dyno will be handed to the competitor be means of a print out.** The Organiser will be receive a copy of each dyno report.

7.4. 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.

7.5. 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.

7.6. 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.
7.7. 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 specialized 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.

8. MECHANICAL CHANGES AND ALLOWANCES DURING AN EVENT.

8.1. Only one kart (chassis) may be used per team in any one event.
8.2. 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.
8.3. 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 or on circuit.
8.3.1. This includes any work that requires cable ties or tape
8.3.2. This includes any work that requires any kind of tool

9. TO REDUCE COSTS, THE FOLLOWING ARE NOT ALLOWED.

9.1. Special tyre changing equipment other than standard tyre changing tools supplied for use in karting
9.2. Tyre warmers or tyre chemicals.
9.3. No pit to driver communications.
9.4. On board tuning devices.
9.5. No fuel additives.
9.6. You MAY open and build your own engines, however one the official SSS Dyno may be used.
9.7. 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.

10. TRANSPONDERS.

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

10.2. By entering this race, competitors agree to pay the organisers R4 000-00 exclusive of VAT in the event of damage or loss of a transponder. NO further Transponders will be issued before the outstanding transponder is returned and or the levy paid.

SPECIFIC RULES & REGULATIONS – TECHNICAL

1. ENGINES

1.1. Only approved 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.

- **1.1.1. 390 SPRINT, ENDURANCE – HONDA 390cc or BRIGGS & STRATTEN 420cc – .92 Jet**
- **1.1.2. 300'S – HONDA 390cc or BRIGGS & STRATTEN 420cc – .92 Jet**
- **1.1.3. MIDGETS – HOFFMAN 212cc – .75 Jet**
- **1.1.4. MINIONS – BRIGGS & STRATTEN 127cc – As supplied - Jet**

1.2. Only OEM Honda or Hoffman carburettors with above mentioned jet and standard emulsion tube are permissible.

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.

1.4. Horsepower: (As per the software output of the dynamometer calibrated at the beginning of the season)

- **1.4.1. 390 SPRINT & ENDURANCE - Max: 23HP**
- **1.4.2. 300 SPRINT - Max: 20HP**
- **1.4.3. MIDGETS - Max: 11.8HP**
- **1.4.4. MINIONS - Max: TBC HP**

1.5. The following modifications, to be carried out by the appointed engine builder only, will be permitted:

- **1.5.1.** The governor may be removed.
- **1.5.2.** The oil cut out relay may be removed.
- **1.5.3.** Accelerator linkages and routing are free. Only foot operated accelerator mechanisms are permitted.
- **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.
- **1.5.5.** Manifold are only to be ran as standard units as supplied with engine package. Specific drawing and measurements are available for the agreed specs. NO COATINGS ALLOWED
- **1.5.6.** Exhaust silencers are controlled, please check with the Scrutineer and Organizer for compliance approval. NO COATINGS ALLOWED
- **1.5.7.** 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.

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.

1.7. Where necessary for repairs, and to keep costs under control, the Organizer in conjunction with the official Engine builders may substitute OEM Honda or Briggs & Stratton parts with compatible OEM Hoffmann parts and vice versa.

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.

1.9. 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.

2. DRIVE TRAIN

2.1. The drive train consisting of clutch, sprocket and chain will be supplied with the engine, when purchased.

2.2. Final drive. The final drive will be by chain and sprocket as specified by the organiser.

2.2.1. 390 SPRINT & ENDURANCE - Front – 15/17 teeth **AND** Rear - 45 teeth of .428 pitch

2.2.2. 300 SPRINT - Front – 15/17 teeth **AND** Rear - 45 teeth of .428 pitch

2.2.3. MIDGETS - Front - 20 teeth **AND** Rear - 68 teeth of .219 pitch

2.2.4. MINIONS - Front - 20 teeth **AND** Rear - 75 teeth of .219 pitch

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

3. BRAKES & BRAKING SYSTEM

3.1. The brake system is free within the following parameters.

3.1.1. Single disc acting on the rear axle.

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

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

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

3.2. Kelgate

3.3. A back up cable operated brake linkage must be fitted to all karts.

4. CHASSIS

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

5. WHEELS & TYRES

5.1. Only full slick tyres are allowed

5.1.1. 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)

5.2. SPRINT 390, ENDURANCE AND 300'S TYRES:

5.2.1. Front maximum wheel width between bead = 135mm. Rear wheel width between bead = 215mm

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

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

5.2.4. **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.

5.2.5. **Sprint & 300'S teams** may use a maximum of 12 tyres of VK/RL1 compound tyres for a full season.

5.3. **MIDGETS & MINIONS TYRES:**

5.3.1. Front maximum wheel width between bead = 135mm. Rear wheel width between bead = 115mm

5.3.2. Tyres front = 10.05 x 4.0, MG compound rating SC.

5.3.3. Tyres rear = 11.05 x 5.0, MG compound rating SC.

5.3.4. **Midgets** may use a maximum of 12 tyres of VK/RL1 compound tyres for a full season.

5.3.5. **Minions** may use a maximum of 12 tyres of VK/RL1 compound tyres for a full season.

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.

5.5. 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.

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

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

5.8. 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.

6. REAR AXLE

6.1. **SPRINT 390, ENDURANCE AND 300'S :** 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

6.2. **MIDGETS & MINIONS:** 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

7. WEIGHTS

7.1. 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

7.2. **SPRINT 390, ENDURANCE AND 300'S:** The minimum weight of the kart including driver will be 185kg (One Hundred and Eighty Five Kilograms) from commencement of free practice.

7.3. **300'S:** The minimum weight of the kart including driver will be 160kg (One Hundred and Sixty Kilograms) from commencement of free practice.

7.4. **MIDGETS:** The minimum weight of the kart including driver will be 110kg (One Hundred and Ten Kilograms) from commencement of free practice.

7.5. **MINIONS:** The minimum weight of the kart including driver will be 85kg (Seventy Five Kilograms) from commencement of free practice.

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

8. SEATS

8.1. Only seats approved by the Organizer may be used – preferably FIA/CIK homologated seats

9. SIDE PODS, BIBS, REAR BUMPERS & NOSE CONES

9.1. 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.

10. FUEL

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.

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

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

10.4. 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.

11. REPAIRS, SERVICING & MAINTENANCE OF ENGINES

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 Builders and dyno tested and sealed by the Official scrutineer.

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

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:

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.

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.

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.