2021

MSA STANDING SUPPLEMENTARY REGULATIONS

NATIONAL KARTING KZ2 & INTERPROVINCIAL KZ SHIFTER CLASSES

Version 2

21 April 2021

Ref: 162433

REVIEW AND AMENDMENTS

Amendments and updates to the rules will be recorded in the Amendment Record, detailing the amendments, date applicable and a short summary of amendments.

AMENDMENT RECORD

Modified SSR / ART	*Date applicable*	*Date of Publication*	*Clarifications*
SSR 5, 5.1.1, 5.3.1, 7.4.2,	***Immediate***	***21 April 2021***	***Wording amended***

Refer: Section K 29 Individual Specifications of the Karting Handbook

1. **Eligibility**

To compete in the KZ, KZ Masters and KZ2 Shifter Classes, it is compulsory to be a member of the GP 125 Shifter Association which is affiliated to MOTORSPORT SOUTH AFRICA.

2. **Status:**

2.1 **KZ2 Shifter Class:**

2.1.1 South African National status
2.1.2 Minimum 6 competitors per National Championship
2.1.3 Minimum 6 competitors per Regional Championship

2.2 **KZ & KZ Masters Shifter Classes:**

2.2.1 Interprovincial status (The winner will be acknowledged as the "Interprovincial Champion" and will be part and attend the NR Regional awards)
2.2.2 Minimum 6 competitors per Regional Championship
2.2.3 Masters class included in the above point 2.2.1
2.2.4 Including the KZ Masters Class
2.2.5 Minimum 6 competitors per Regional Championship

3. **Ages:**

3.1 **KZ2 Shifter Class:**

3.1.1 Year of the competitors 15th Birthday

3.2 **KZ & KZ Masters Shifter Class:**

3.2.1 Year of the competitors 26th Birthday
3.2.2 Dispensation can be applied for by a "Competitor" who is under the required "Age" of this class, based on personal weight that places them at a disadvantage from competing fairly in the lighter Shifter class. (The application, acceptance and agreement is at the discretion of the GP 125 Shifter Association Committee)
3.2.3 KZ Masters – Year of the competitors 38th birthday

4. **Class Specifications:**

4.1. These regulations are in addition to those stated elsewhere in the karting articles affecting these classes

4.2 Minimum mass of kart complete in racing trim including driver, helmet and all protective clothing:

4.2.1 **KZ2 Shifter Class**

4.2.1.1 TM KZ10 180Kgs
4.2.1.2 TM KZ10C 180Kgs
4.2.1.3 TM KZ-R1 180Kgs
4.2.1.4 Vortex RSZ 180Kgs

4.2.2 **KZ Class**

4.2.2.1 TM KZ10 190Kgs
4.2.2.2 TM KZ10C 190Kgs
4.2.2.3 TM KZ-R1 190kgs
4.2.2.4 Vortex RSZ 190kgs

4.2.3 **KZ Masters class**

4.2.3.1 TM KZ10 200kgs

4.2.3.2 TM KZ10C 200kgs
4.2.3.3 TM KZ-R1 200kgs
4.2.3.4 Vortex RSZ 200kg

5. **Tyres: (Subject to changes for 2021 season due to Bridgestone withdrawal from Kart racing)**

5.1 **Supply and Fitting:**

5.1.1 New tyres can be purchased and fitted to rims on the Friday of the race weekend but must be scanned. ~~and left with RKT until race day~~

5.1.2 New tyres maybe utilised for each SA National and Regional for Qualifying and race day Heats for these events held during ~~2020~~ 2021.

5.2 **KZ2 Shifter Class:**

5.2.1 LeVanto KRT ~~Bridgestone YLR~~ dry (one new set per race day)

5.2.2 Bridgestone YLP wet (only one set allowed for the days racing)

5.3 **KZ & KZ Masters Classes:**

5.3.1 LeVanto KRT ~~Bridgestone YLR~~ dry (one new set per race day)

5.3.2 Bridgestone YLP wet (only one set allowed for the days racing)

5.3 **Damaged tyres:**

5.4.1 If a tyre is damaged or deemed to be unsafe by the Clerk of the Coarse it can be exchanged for a used tyre of similar wear

5.4 **Tyre monitoring:**

5.5.1 Each barcoded set of tyres will be scanned and allocated to each competitor to ensure that the same set is used for the Official Qualifying and all three races on the day

5.5.2 Tyres may be rotated on the rims between heats

6. **Chassis:**

6.1 **As per article 34 F and the chassis must comply with the following regulations:**

6.1.1 Rear protection, bodyworks, front panel and spoiler – CIK homologated only.

6.1.2 Rear and front homologated brakes of the same type acting on both front and rear wheels KZ type foot operated.

6.1.3 Two or three rear axle ball bearings to be operational at all times (no ceramic type ball bearings permitted)

6.1.4 Ceramic type disc rotors will no longer be allowed from 2015 as per CIK FIA ruling.

6.1.5 One chassis per driver.

6.1.6 Any chassis damaged during an ascertained accident will be reported to the technical consultant/chief scrutineer who will consult with the relevant officials in deciding if the chassis warrants replacement or not. Only they may authorise the replacement.

6.1.7 Any decision to allow the use of an alternative chassis will render the use of the original chassis void.

6.1.8 Chassis must also comply with: Conventional chassis, under CIK current homologation.

6.1.9 Hollow magnetic steel rear axle, maximum diameter 50mm.

6.1.10 The regulations prescribed by CIK (group 2) are strictly applicable for any detail not mentioned in the paragraph concerning the CHASSIS (as per article 2 of the present regulations. Only chassis homologated for use in S.A. may be used.

7. **CIK – FIA KZ2 Engine**

Article 12 - Specific Regulations for KZ2 Engines (All the TM Engines specified for KZ2 and KZ and KZ Masters Shifter Classes)

- Water cooled single-cylinder engine with reed-valve intake homologated by the CIK-FIA.
- Maximum cylinder cubic capacity: 125 cc.
- Reed-valve box (dimensions and drawing) according to the Homologation Form. Reed-valve box cover: free.
- Float chamber carburettor made of aluminium, with a venturi type diffuser with a maximum diameter of 30 mm round. For the CIK-FIA Championships, Cups and Trophies, a single carburettor supplier will be designated further to an invitation to tender.

The carburettor must remain strictly original. The only settings allowed may be made to: the slide, the needle, the floaters, the float chamber, the needle shaft (spray), the jets and the needle kit, subject to all the interchanged parts being of Dell'Orto origin. The incorporated petrol filter and the plate (part No. 28 on the technical drawing No. 7 appended) may be removed; if they are kept, they must be original.

- Gearbox: homologated by the CIK-FIA (including the primary torque). With a Minimum of 3 ratios and a maximum 6 ratios allowed. Check of the ratios using a graduated disc with a minimum diameter of 200 mm or a digital coder; the degree decimals given on the Homologation Form must be mentioned in tenths of degrees and not in minutes. For the homologation of the gearbox, the Manufacturer(s) and the model and type must appear on the Homologation Form.
- In KZ2: hand-operated and exclusively mechanical gearbox control without a servo system. Any system of ignition cutting is forbidden.
- Total exhaust opening angle of 199° maximum, irrespective of the value indicated on the homologation form (to be read with a graduated circle of a minimum diameter of 200 mm or with a digital device).
- Volume of the combustion chamber: 11 cc minimum, measured in accordance with the method described in Appendix No. 1a.
- Spark plug: free make (mass-produced and strictly original). The body of the spark plug (electrodes not included), tightened on the cylinder head and must not extend beyond the upper part of the dome of the combustion chamber.
- Dimensions of the threaded spark-plug housing- length: 18.5 mm; pitch: M 14 x 1.25.
- Identifications: machined flat spaces of 30 mm x 20 mm for the attachment of the specified identification stickers:
  - At the front of the cylinder,
  - On the upper part of the reed box housing for the half sumps.
- It is allowed to add a mass to the ignition rotor; it shall be fixed by at least 2 screws, without any modification to the homologated rotor.
- Exhaust: homologated and the magnetic steel sheet metal thickness of which must be 0.75 mm minimum.
- Exhaust silencer: homologated, mandatory use. Fitting of the exhaust and silencer according to the Technical Drawing No. 20.

7.1 **Engines permitted are:**

KZ & KZ Masters Shifter Classes:

7.1.1 TM KZ10 Homologation Form No. 49/M/18 VERSION 1.3 – 13/12/2012

7.1.2 TM KZ10C Homologation Form No. 32/M/24 VERSION 1.2 – 22/09/2016

7.1.3 TM KZ-R1 Homologation Form No. 041-EZ-75 VERSION – 09/2020

7.1.4 VORTEX RSZ Homologation Form No. 012-EZ-76 VERSION 1 - 15/02/2019

KZ2 Shifter Class:

7.1.5 TM KZ10 Homologation Form No. 49/M/18 VERSION 1.3 – 13/12/2012

7.1.6 TM KZ10C Homologation Form No. 32/M/24 VERSION 1.2 – 22/09/2016

7.1.7 TM KZ-R1 Homologation Form No. 041-EZ-75 VERSION – 09/2020

7.1.8 VORTEX RSZ Homologation Form No. 012-EZ-76 VERSION 1 - 15/02/2019

7.1.9 All Models to be raced complete with carburettor, exhaust and ignition as supplied by the manufacturer and specified on the motors homologation form and must comply with/to the CIK FIA Technical Regulations for the KZ and KZ2 Engine Specifications.

7.1.10 Only original TM components may be used as per TM spare parts lists - of each Homologated TM engine

7.1.11 Only original Vortex components may be used as per the Vortex spare parts list - of the Homologated Vortex motor

7.1.12 No modifications of these engines or any components including the exhaust and carburettor are permitted unless specifically noted

7.1.13 Any modification or adjunction on these engines and its accessories, if not expressly authorized in these regulations, is forbidden. Drivers are responsible for the conformity of their equipment.

7.1.14 All engines will be sealed after qualifying and will remain sealed for the entire race day. The seal is to be secured between the cylinder head bolt and the reed cover manifold and to be made as tight as possible. Should there be a technical reason for breaking the seal, you will need to take your kart to "Parc Ferme" and in consultation with the scrutineer carry out the breaking of the seal and necessary repair. The engine will then be resealed. Failure to follow procedure will result in a DQ on race day.

7.1.15 Should a motor be replaced then the damaged motor is to remain in the care of the scrutineers until they say it may be handed back.

Please note that the CIK homologation sheets and homologated parts catalogue being used for the engine rules are available on the MSA website. The full CIK – FIA regulations can be found on: http://www.cikfia.com/regulations/technical.html

7.2 Engine Technical Description:

7.2.1 Cylinder cubic capacity

V volume engendered in the engine cylinder(s) by the upward or downward movement of the piston(s).

This volume is expressed in cubic centimetres and, for all calculations concerning engine capacity, the number

''pi '' will be taken inclusively as 3.1416.

$V = 0.7854 \times d^2 \times l \times n$

With: d = bore; l = stroke; n = number of cylinders.

7.2.2 Ducts or passages

Ducts or passages are cylindrical or cylindrical-conical elements allowing the passage of gases whatever the length or position of these elements.

Number of ducts or passages: the number of real ducts or passages is the greatest quantity of cylindrical or cylindrical-conical elements which transmit gases from the pump casing to the top of the piston, as well as those which transmit gases from the outside of the cylinder to the inlet ports, or from the exhaust ports to the outside of the cylinder.

7.2.3 **Inlet or exhaust port**

A port is composed of the intersection of the periphery of the cylinder and the inlet or exhaust duct. This port is opened or shut by the passage of the piston.

7.2.4 **Power valve**

By « power valve » is meant any system which can alter by manual, electric, hydraulic or any other means the normal exhaust port timing or the normal flow of exhaust gases at any point between the piston and the final exhaust exit when the engine is running.

7.3 General

7.3.1 By engine is meant the propelling unit of the vehicle in running order, including a cylinder block, sump and gearbox, ignition system, carburettor(s) and exhaust silencer.

All systems of injection are forbidden. The spraying of products other than fuel is forbidden. The engine shall not comprise a compressor or any super-charging system.

Any modifications inside the engine may only be carried out by the removal of material. KZ2 and KZ, engines must be described in the Manufacturer's catalogue and be the subject of a descriptive form called ''Homologation Form'' from the model established by the CIK FIA. This Homologation Form shall be stamped and signed by the ASN and the CIK-FIA (see the Homologation Regulations).

7.3.2 **Cylinders**

For UN sleeved engines, repairing cylinders is allowed by addition of material but not of parts.

Cylinder head: it is allowed to replace the spark plug thread by a heli-coil, must remain within factory specs.

7.3.3 **Water cooling**

Only water (H2O) is authorised for liquid cooling.

No glycol based antifreeze is allowed to be used.

For all categories using water cooling, radiators must be placed above the chassis frame, at a maximum height of 50 cm from the ground, at a maximum distance of 55 cm ahead of the rear wheels axle and they must not interfere with the seat. All the tubing must be of a material designed to withstand the heat (150°C) and pressure (10 Bar). To control the temperature, it is only allowed to place at the front or at the rear of the radiator a system of masks. This device may be mobile (adjustable), but it must not be detachable when the kart is in motion, and it must not comprise dangerous elements. Mechanical by-pass (thermostat type) systems, including by-pass lines, are allowed. In line Heat Exchangers are allowed in the water pipes.

7.3.4 **Water pump**

The water pump must be mechanically controlled either by the engine or by the rear wheels axle.

7.3.5 **Carburettors and inlet duct**

Any injection system is forbidden. Any spraying of products other than fuel is forbidden. The inlet duct (mechanical assembly between the homologated inlet silencer and the reed box) must comprise the inlet silencer, the carburettor and the reed box cover, as well as a possible adaptor, spacer and/or gaskets.

No additional component is authorised.

The adaptor (spacer) must have a transversal conical cylinder cross-section, be mechanically attached with tools and present neither any connections fitting together nor parts which overlap each other.

Furthermore, it is forbidden to have any connection resulting in an extra volume (including any groove, hollow space or other such spaces) at the level of the inlet duct. Carburettors in the KZ2 category for the FIA Karting Championships in 2019/2020/2021: technical drawing No. 7 appended. Inline Heat Exchangers and Carburettor Tanks are permitted in the fuel line.

7.3.6 **Ignition**

In all categories the ignition system used must be homologated by the CIK-FIA. For the KZ2, KZ & KZ Masters categories, the ignition system used must be (as per the engines Homologation Form) of analogue type and any variable ignition system (system of progressive advance and delay) is forbidden.

Any electronic system allowing an auto-control of the parameters of functioning of the engine while the kart is in motion is forbidden.

On decision of the GP 125cc Shifter Association and by notifying the race day Stewards in writing, it will be authorised to interchange Entrants' ignition systems for the system supplied by the CIK or the ASN concerned (same homologated models).

7.3.7 **Spark plug**

The ignition spark plug must be mass-produced and remain strictly original. The spark plug barrel and the electrode insulation (electrodes not included) tightened on the cylinder head must not extend beyond the upper part of the combustion chamber dome (see Appendix No. 7).

The spark plug must be installed with its gasket.

A spark plug temperature probe is permitted and if it is min 1.2mm thick, after being fitted and/or used it can act as a spark plug gasket. The insulator must not exceed the spark plug body and the length of the spark plug body itself must be a max 18.5mm

7.3.8 **Inlet Silencer (Air Box)**

An inlet silencer homologated by the CIK-FIA is mandatory.

For the KZ2, KZ and KZ Masters categories: ducts of 30 mm maximum.

Variable volume air boxes are forbidden.

The obligatory homologated intake silencer must be used under strict observance of the following points:

- If the rubber bush is reversible, it may only be cut on one side, the unused one located in the body of the silencer.
- The part of the bush linking the silencer to the carburettor must be visible at all times and must be on the outside of the silencer. It allows the rear face of the silencer to be connected to the cylindrical shoulder of the carburettor.

7.3.9 **Exhaust**

In KZ2, KZ & KZ Masters the exhaust must be Engine Specifically homologated. In all categories the exhaust system shall discharge behind the Driver and shall not operate at a height of more than 45 cm from the ground. The exhaust silencer outlet, the external diameter of which must be more than 3 cm, must not exceed the limits of the body or bumper. All systems of « power valve » are forbidden.

On decision of the GP 125cc Shifter Association and by notifying the race day Stewards in writing, it will be authorised to interchange Entrants' exhaust systems for the system supplied by the CIK or the ASN concerned (same homologated models).

7.3.10 **Silencer**

The Exhaust Silencer must be CIK - FIA Homologated.
See CIK – FIA Exhaust Silencer Homologation List

7.4 **FUEL – COMBUSTIVE**

7.4.1 **Fuel**

The requirements specified in these regulations are intended to ensure the use of fuels predominantly composed of compounds normally found in commercial fuel, and to prohibit the use of specific power-boosting chemical compounds.

All KZ and KZ2 competitors will only be permitted to use freely and commercially available 95 octane pump fuel.

7.4.2 **Mixture used in 2-stroke engines**

The fuel will be mixed with a CIK-FIA approved 2-stroke lubricant. Only the Fuchs Silkolene Pro 2 (sponsored by Fuchs) or Motul 800 2T oil may be used. Modification of the basic fuel composition by the addition of any compound is strictly forbidden. This restriction also applies to the lubricant, which must not change the composition of the fuel fraction when added to the fuel. Furthermore, as for the fuel, the lubricant must not contain any nitro-compounds, peroxides or any other engine power boosting additives. Fuel testing will be the norm in ~~2020~~ 2021 Nationals and a base needs to be set.

7.4.3 **Air**

Only ambient air may be mixed with the fuel as a combustive.

7.5 **Controls**

7.5.1 **For the control, the following tolerances are allowed:**

- Connecting rod centre line: +/- 0.2 mm
- Piston stroke: +/- 0.2 mm
- Crankshaft alone: +/- 0.1 mm
- Homologated gearbox: Value obtained after 3 engine rotations: +/- 3°
- Exhausts of all 125cc engines: +/- 1 mm
  (piston, crankshaft & conrod, reed box, balance shaft):
  Dimensions: <25 mm - Tolerance: +/- 0.5 mm
  Dimensions: 25-60 mm - Tolerance: +/- 0.8 mm
  Dimensions: 60-100 mm - Tolerance: +/- 1 mm
  Dimensions: >100 mm - Tolerance: +/- 1.5 mm
  - Other parts:
  Machined Parts:
  Dimensions: <25 mm - Tolerance: +/- 0.5 mm
  Dimensions: 25-60 mm - Tolerance: +/- 0.8 mm
  Dimensions: >60 mm - Tolerance: +/- 1.5 mm
  Welded Parts:
  Dimensions: <25 mm - Tolerance: +/- 1.0 mm
  Dimensions: 25-60 mm - Tolerance: +/- 1.5 mm
  Dimensions: >60 mm - Tolerance: +/- 3.0 mm
  The units of measure (including derived units) will be those of the

international system: unit of length in metres, unit of mass in kg, unit of time in s, and unit of noise level in decibels. However, the following will be used: for the unit of angle, the ° (degree) instead of the radian; and, for the unit of temperature, the °C instead of the Kelvin.

7.5.2 **Without tolerance, at all times and whatever the conditions may be:**

- Cubic capacities.
- Diameter of the carburettor venturi. (30.0mm Max)
- Mass measurement.
- Combustion chamber volume. (11cc Min)
- Any minimum and maximum value.

7.6 Checks to be done by Appointed Technical Consultant

7.6.1 Method for measuring the opening angles of the exhaust ports

All motors: Exhaust 199 degrees Max

In order to make the measurement more accurate, a 0.20 mm thick and 5 mm wide wedge (according to technical drawing No. 18) will be used to establish the start and finish of the measurement.

This wedge will be gripped at the chord axis of each port, between the edge of the upper part of the piston ring or of the piston and its intersection with the edge of the inlet or exhaust port.

The position by which the gripping of the wedge will permit the measurement of the largest possible angle will be considered as the beginning and the end of the measurement of the angle.

This wedge may be set in position through the inside of the cylinder or through the duct of the exhaust port to be checked. It will not be mandatory on any account for the wedge to be placed in a horizontal or vertical position.

The reading will be carried out using a graduated disc with a minimum diameter of 200mm or a digital display measuring device operated by a coder.

7.6.2 Volume test for Combustion Chamber

Appendix No. 1 On KZ2 Engines, the volume then measured minus the plug insert (2 cc) must not be less than 11 cc.

Plug Insert Drawing no. 6

General method for measuring the volume of the combustion chamber

- Remove the engine from the chassis.
- Wait until the engine is at ambient temperature.
- Have the cylinder head removed to check the protrusion of the spark plug.
- Have the spark plug removed (check the 18.5 mm dimension).
- Screw the plug insert in place of the spark plug (the plug insert, tightened on the cylinder head, must not extend beyond the upper part of the dome of the combustion chamber. It must be fixed to the cylinder in exactly the same way as the spark plug measuring 18.5mm long).
- Make the top part of the piston and the periphery of the cylinder waterproof using grease.
- Place the piston at top dead centre and block the crankshaft.
- Carefully remove the excess grease.
- Place the cylinder head back and screw it in at the torque recommended by the Manufacturer.

- With a laboratory graduated burette (mechanical or electronic), fill combustion chamber (with DEXTRON VI type oil) to the uppermost part of the top edge of the plug insert (wetting the plane of the head gasket).

Alternative method for measuring the volume of the combustion chamber

- Remove the engine from the chassis.
- Wait until the engine is at ambient temperature.
- Have the spark plug removed (check the 18.5 mm dimension).
- Screw in the plug insert in place of the spark plug (the plug insert, tightened on the cylinder head, must not extend beyond the upper part of the dome of the combustion chamber. It must be fixed to the cylinder in exactly the same way as the spark plug measuring 18.5mm long).
- Place the piston at top dead centre and block the crankshaft.
- With a laboratory graduated burette (mechanical or electronic), fill the combustion chamber (with DEXTRON VI type oil) to the uppermost part of the top edge of the plug insert (wetting the plane of the head gasket).
- In case of discrepancy of the measured value, the complete procedure must be carried out according to the "General Method" of Appendix No. 1.

7.6.3 **Squish Test**

This can be used as an alternative for volume test on race day between races.

- A minimum squish of 1mm is permitted.
- Measurement will be done with a digital Vernier at the smallest point of the wire up against the shoulder created by the piston.
- The Vernier will be owned by the club and will be present on race days for any competitor to check squish prior to the sealing of the motor.
- The solder wire to be used will be National Solder 97/3 1.6mm Solid Wire. The solder wire will have a tolerance off +/- 0.1 mm (Appendix A)
- The Solder Wire will be available from the 125GP Association.
- The squish will be checked on both the left and the right side of the piston parallel to the gudgeon pin.
- The smaller of the two measurements will be the measurement used for legality.

7.6.3.1 **Procedure**

- Remove Plug
- Insert solder to touch cylinder wall directly above the Gudgeon pin.
- With the solder wire in place the motor will be turned through top dead centre once. ○ The step on the solder will not be cut off.
- The smallest point on the solder against the shoulder measured with the point of the Vernier will be the final measurement. (Appendix B and C)

7.7 **Engines**

7.7.1 **KZ2 CIK FIA specified**.

Only reed-valve intakes are authorised.

The original parts of the homologated engine must always comply with and be as per the photographs, drawings, materials and physical dimensions described on the Homologation Form.

7.7.2 **Modifications to the homologated engine allowed:**

- Reed Manifold can be modified eg. polishing, grinding, sand blasting. Strictly no material may be added. A maximum of 31.5 mm throat diameter is permitted.
- Crankcase may be cleaned and polished and sand blasted. Strictly no material may be added. As per homologation sheet and only Original TM Racing parts as per the homologated motors to be used.
- Crankshaft may only be statically balanced.
- Standard Conrods as per homologated spares list may be polished but not lightened
- Carburettors can be polished but the venturi must be a maximum of 30mm and the profile has to remain as per the original Dell'Orto VHSH 30 CS profile
- External Water Flow U Tube from Barrel to Crank Casing can be Removed and Sealed due to Seat positioning for the taller or larger competitor.

7.7.3 **Modifications to the homologated engine not allowed:**

7.7.3.1 Inside the engine:

- the stroke,
- the bore (outside the maximum limits),
- the connecting rod centreline,
- the number of transfer ducts and inlet ports in the cylinder and crankcase,
- the number of exhaust ports and ducts,
- the crankshaft may not be DYNAMICALLY BALANCED (grinding or removal of material is prohibited)
- the Reed Valve must be as supplied with strictly no machining permitted,
- the restrictions according to the specific regulations.

7.7.3.2 Outside the engine:

- number of carburettors and diameter of choke,
- All the clutch components must be original as per motors Homologation Form without any modifications.
- External appearance of the fitted engine.
- The following are not considered to be modifications to the external appearance of the engine:
  - Modification of the colour of the parts, the trimming of cooling connections and modification of the fixations (including but not limited to fixations of the carburettor, of the ignition, of the exhaust, of the clutch or of the engine itself), provided that their homologated position is not modified.

8. Gear Shift:

8.1 In the KZ2 Shifter Class and the KZ and KZ Masters Classes only hand operated gear shift is allowed

8.2 Paddle shift with a push pull cable is permitted

8.3 An Electronic paddle shift is permitted

8.4 Any form of Ignition cutting is strictly forbidden

9. **Rear Axles**

9.1 It is permitted to have rear axle insert so as to strengthen the keyway area where the axle sprocket is located

9.2 The maximum rear axle width from outside rim to outside rim is 1400mm (not tyres)

10. **Air Box Modification**

10.1 Only CIK – FIA air boxes must be fitted

10.2 In the event of rain to protect the motor from water damage a protective device may be fitted. This device must be securely fitted. Duct tape is permitted to help secure the device

11. **Modification to the Regulations**

In order to guarantee the progress of the KZ2 Shifter Class, KZ and KZ Masters Class, the GP 125 Shifter Association Committee is mandated to and reserves the right to modify any clause of the technical regulations at any time. MSA need to be notified of such changes 7 (seven) working days prior to an event taking place for ratification.

12. **Moratorium on newly Homologated TM Motors**

12.1 For the foreseeable future in the KZ & KZ Masters Classes - a moratorium is placed on the purchasing of newly homologated motors.

12.2 Only the KZ10 and the KZ10C are permitted

13. **Not adhering to the GP 125 Shifter Association constitution**

In the event that any competitor intentionally not adhering to above rules and/or the constitution of the GP125 Shifter Association and/or competes in such a manner which is inconsistent with the above rules and/or the Constitution of the GP125 Shifter Association and/or the spirit of this class and thereby bringing the class into disrepute could face disciplinary actions and his or her membership can be immediately terminated upon the majority decision of the members of this class.

All documentation can be found at the following links below:

- Appendix A DATA SHEET 973 SOLID WIRE - https://www.motorsport.co.za/DirectoryDisplay/DynamicContentDirectory.aspx?commission=Karting
- Appendix B Data Sheet 973 Solid Solder Wire - https://www.motorsport.co.za/DirectoryDisplay/DynamicContentDirectory.aspx?commission=Karting
- Appendix C Where to measure - https://www.motorsport.co.za/DirectoryDisplay/DynamicContentDirectory.aspx?commission=Karting
- Appendix 1 Measuring Combustion Volume - https://www.motorsport.co.za/DirectoryDisplay/DynamicContentDirectory.aspx?commission=Karting
- Appendix 7 - Spark Plugs - https://www.motorsport.co.za/DirectoryDisplay/DynamicContentDirectory.aspx?commission=Karting

- CIK - FIA KZ1-KZ2_Exhaust Silencer Homologation 2014-2022 - https://www.motorsport.co.za/DirectoryDisplay/DynamicContentDirectory.aspx?commission=Karting
- CIK - FIA Technical Regulations - https://www.motorsport.co.za/DirectoryDisplay/DynamicContentDirectory.aspx?commission=Karting
- Drawing_6 for Volume Test Insert - https://www.motorsport.co.za/DirectoryDisplay/DynamicContentDirectory.aspx?commission=Karting
- Drawing_7 Technical drawing no 7 - Carburettor - https://www.motorsport.co.za/DirectoryDisplay/DynamicContentDirectory.aspx?commission=Karting
- Drawing_18 Opening Angles wedge - https://www.motorsport.co.za/DirectoryDisplay/DynamicContentDirectory.aspx?commission=Karting
- Drawing_20 Fitting of the exhaust and silencer - https://www.motorsport.co.za/DirectoryDisplay/DynamicContentDirectory.aspx?commission=Karting
- Engine tm KZ-R1 – Part Homologation List – TM - 041 – EZ - 75. https://www.motorsport.co.za/DirectoryDisplay/DynamicContentDirectory.aspx?commission=Karting
- Engine tm KZ-R1 – Homologation – TM–041–EZ–75.
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