



## **REGULATIONS AND SPECIFICATIONS FOR THE 2018 WESTERN CAPE FORMULA "M" CLUB CHAMPIONSHIP**

### **MSA WESTERN CAPE MOTORSPORT CIRCULAR 12/2018**

**1. CONTROLLERS**

Will be the Western Province Short Circuit Committee.

**2. AIM OF THE CHAMPIONSHIP**

To declare a Formula "M" Club Champion.

**3. REGULATIONS**

All qualifying races shall be held under the General Competition Rules (GCR's) and Standing Supplementary Regulations (SSR's) of MSA and these Standing Regulations and Supplementary Regulations issued by the promoters.

**4. ELEGIBILITY OF DRIVERS**

All drivers must comply with the regulations for that specific class entered. The age of the competitor is his/her age on the 1<sup>st</sup> January of the current year. Class C is 14 yrs or at the discretion of the Controllers to minimum age of – 12 yrs. Class B is 16 yrs or at the discretion of the Controllers to minimum age of – 14 yrs.

**5. ELIGIBILITY OF VEHICLES**

Refer Technical Regulations for each class.

**6. EVENTS TO COUNT TOWARDS CHAMPIONSHIP**

All events held under WPMC Short Circuit Section.





**7. CLASSES**

C Class – See basic car dimensions and Engines

B Class – See basic car dimensions and Engines

X Class - See basic car dimensions and Engines

**8. CHAMPIONSHIP**

If the day’s racing is cancelled for any reason whatsoever, the completed heats will count towards the Championship.

**9. RACE DISTANCE**

Will be a minimum of 6 laps with 2 warm up laps. All classes to run a minimum of 2 heats to count for Championship points.

**10. POINT SCORING**

Points towards the Championships will be scored per heat, all to count and on the following basis for Class B and Class C, Class X will be a Non point scoring class:

Position	Number of Starters					
	6 (or more)	5	4	3	2	1
1 <sup>st</sup>	15	12	10	9	8	7
2 <sup>nd</sup>	12	10	9	8	7	
3 <sup>rd</sup>	10	9	8	7		
4 <sup>th</sup>	9	8	7			
5 <sup>th</sup>	8	7				
6 <sup>th</sup>	7					
7 <sup>th</sup>	6					
8 <sup>th</sup>	5					
9 <sup>th</sup>	4					
10 <sup>th</sup>	3					
11 <sup>th</sup>	2					
12 <sup>th</sup>	1					





**11. GRID POSITIONS:**

Class C Grid will be ahead of Class B Grid and Class X will be behind Class B. Race 1 will be determined by qualifying times on the day. The starting grid will be a staggered 3m apart configuration. This may, however, be altered by the Clerk of the Course, after taking into consideration the circuit and conditions of the day. If you are found out of position at any point in time while stationary on the designated grid, you will be pushed to the back of the Class X grid from where you will have to start. The grid positions for Race 2 will be a reversed grid of Race 1. Race 3 will be based on overall points for the day per class, with the driver with the most points starting at the back of the grid.

**12. STARTING PROCEDURE:**

Drivers will be lined up in their respective grid positions in the pre-race paddock. After completing the warm-up lap(s) as indicated, cars will form up on the starting grid directly with their engines running. Where marked grid bays are present, the front of the front tyre must remain behind the line.

**13. FUEL:**

Only 95 pump fuel is permitted. NO performance elements or substances, e.g. Nitromethane, may be used. The use of Methanol is NOT permitted. 2 Strokes may add toluene to their fuel mixture to raise the octane.

**14. SCRUTINEERING:**

Vehicles must be presented for scrutiny in a clean condition and ready to race together with approved helmet and visor, approved fire proofing single-layer race overhauls, as well as suitable racing shoes and gloves, all in good condition.

Scrutineer for 2018: Roy Reed

**15. DRAIN PLUGS (GEARBOX & ENGINE) AND OIL FILTER RETAINING NUTS/BOLTS:**

The above mentioned to be wired and locked except in the case of when the oil filter is secured with multiple bolts.





**16. RULES AND REGULATIONS:**

The above Regulations covering racing in general must also be read, understood and adhered to.

**17. CHASSIS: *All classes except where specified***

- 17.1 NO load or stress bearing section of any chassis constructed from steel shall use material thinner than 1.6mm.
- 17.2 No integral part of the chassis shall be of material thinner than 1.6mm and less than 1.6mm sq. or 16mm O or 12mm x 25mm rectangular.
- 17.3 Main horizontal chassis members (top & bottom) shall have a minimum circumferential dimension of 25mm all by 1.6mm thick.
- 17.4 Welding – Tig or Mig recommended or a good quality arc or gas weld.
- 17.5 Wish bones to be fabricated from mild steel tubing – top minimum 1.6mm wall thickness.
- 17.6 The foot protection cage shall form part of the chassis so that the driver's feet do not protrude forward of the front wheel centers (pre 2000 cars front of tyre) with the pedals in the inoperative position. All cars shall afford foot protection to the satisfaction of the scrutineer(s).
- 17.6.1 There shall be one roll bar fitted directly behind the driver and designed to protect the driver's helmeted head. Roll bars shall be constructed of a min. of 32x1.6mm round tubing or 38x2mm square tubing. Must be so constructed that when a straight line is taken between the apexes of the cockpit and nose, crash helmet clearance of 50mm is provided. (See appendix No. 2) The roll bar to be supported by a min. of two stays to the rear of which the min. size shall be 20x1.6mm wall size. The stay bars shall run at the angle of less than 45 deg to the horizontal and attached to the roll bar no more than 150mm from the apex. If bolted in position, a min. of 8mm high tensile bolts shall be used. The roll bars must extend to the bottom of the chassis. Any chassis or suspension member requiring a hole must be inserted and welded (insert wall min. 1.6mm).
- 17.7 All space frames chassis to be constructed of mild steel only.
- 17.7.1 Cars built before the year 2000 and not complying fully with chassis regulations may be passed as legal, at the discretion of the technical committee and the satisfaction of the scrutineer. All new cars (newly





built or new to the club) must be inspected by the technical committee. Any person wishing to build a new car must declare their intentions to the technical committee before embarking on such a build.

**18. NUMBERS:**

Numbers on Formula M Cars will be Black numbers on a White background which is "based" on Formula "V" SSR's Article 7 - 7.1. The width and Height of the Black Numbers Must have a Minimum size of 40mm x 230mm per digit. Special compensation can be made by the COC if the numbers don't comply but are clearly visible. There must be a "C", "B" or "X" indication next to the number to indicate the class.

**19. BASIC CAR DIMENSIONS:**

- \*Overhaul length: Max. 4m all inclusive
- \*Wheelbase: 1.52 min. to 2.65 max. (axle centers)
- \*Track: 1.4 max. center to center off tyre

**20. WHEEL SIZE AND TYRES:**

Rim and tyre size is unlimited. With a minimum size of 13".

**21. GENERAL:**

Formula "M" racing cars are of the open wheel, single seater, rear wheel driven design, powered by a motorcycle engine. Only a space frame construction will be allowed.

**21.1 Brakes:**

Brakes must be hydraulically foot operated. A dual system is recommended but not mandatory and must operate on all 4 wheels. Cable operated mechanisms are prohibited.

**21.2 Fuel tank:**

Your fuel tank shall be hosted within the framework and must be firmly secured (Temporary fixings are prohibited). Where the fuel tanks are side mounted they must be in a crash proof frame. The minimum distance between tank and this frame shall be no less than 70mm. The fuel cap shall have an efficient sealing action.





Fuel lines must be flexible and clamped at all connecting points to prevent leakage. A breather overflow pipe must be fitted, venting from the highest point of the tank, routing upwards to the highest point within the main roll bar, preventing siphoning and then down and venting out of a point below the bottom of the chassis. The breather shall not be larger than 8mm inside diameter. In the event of the car being inverted, the fuel should not leak out of the tank.

21.3 Fireproof bulkhead:

All vehicles must be fitted with a fireproof bulkhead separating the engine and driver's compartment. The bulkhead must extend to the min. height of 500mm from the floor pan.

21.4 Bodyworks:

It shall be constructed of mild steel, fiberglass or aluminum (no other materials will be permissible) totally enclosing the driver at least underarm height. For inspection of stress areas, bodywork/panels must be removable, but when replaced, should be adequately fastened. All cars are to be clean. The bodywork may extend rearwards to enclose the engine or incorporate the rear wheel. The bodywork shall be clean and neat in appearance. The driving compartment shall be so designed and constructed that the driver can get out of the driving seat and safety belts in less than 15 seconds. The driver shall be able to get into and out of the safety belt and driving seat without having to remove or manipulate any part of the car, other than to remove steering wheel.

21.5 Mirrors:

Two rearview mirrors must be suitable and securely mounted on all vehicles.

21.6 Fire extinguisher:

A 1 Kg DCP type fire extinguisher is mandatory. The fire extinguisher brackets shall be secured by a minimum of four 6mm HT bolts and nylock nuts. Brackets fixed to aluminum floor pans shall have steel washers 25mm OD x 1.6mm thickness under the floor pan.

21.7 Seat belts:

A five point approved safety harness of the quick release type that release at least all but one point, and which holds the driver firmly under all racing conditions and in good working condition shall be mandatory. Seat belt anchor points shall be lower than the shoulder height of the seated driver. The seatbelt point must be a suitable and substantial part of the chassis.





- 21.8 Numbers:  
Numbers and class letters allocated (on each side and one to the front) must be:  
Numbers – 200mm height x 25mm stroke Letters – 125mm x 20mm stroke.  
Further to be of a contrasting colour to the base. **Refer MSA handbook.**
- 21.9 Securing components:  
All nuts and bolts must be secured by locknuts, spring washers or split pins. If nylock nuts are used, at least 1 thread of the bolt must protrude past the edge of the locknut. No split washers or spring washers to be used on aluminum surfaces.
- 21.10 Wheel Hubs.  
NO aluminum wheel hubs are permitted.

**22. STEERING:**

- 22.1 Only steering mechanisms which are safe in the opinion of the Technical Committee and the scrutineer(s) of the day shall be allowed.
- 22.2 Steering controlled by cables and mono rails are specifically prohibited.
- 22.3 Steering mechanisms must be well secured to the chassis.
- 22.4 Steering column universals must be of automotive origin.  
Industrial type prohibited.

**23. FLOORING:**

Formula "M" cars must be fitted with a minimum 0.9mm steel, 1.6mm aluminum, 6mm single skin glass fiber or 6mm wooden floor pan. Flooring must extend the full length and width of the driver's compartment. Flooring under the engine compartment is allowed on condition that the drain plugs are accessible. All newly built vehicles must have flooring under the engine that has a catchment type system that will be large enough to hold the entire contents of the engine oil and fluids.

**24. SEAT:**

The seat must be well secured. It must be designed so that the driver is well located to resist movement when cornering, braking or crashing. All cars shall be fitted with a seat, mounted independently from, and not supported in any way, by the floor pan. (Under tray).





**25. IGNITION SWITCH/KILL SWITCH:**

All cars shall have an ignition switch inside the cockpit, which shall be accessible to the driver when belted in and from outside. All cars using a battery shall have electric circuit breaker in the main positive battery leads and shall be easy to operate from outside the car. All in compliance with SSR 2.7.

**26. CHAIN GUARD:**

All drivers must be protected from a falling chain. A chain guard is required.

**27. FRONT WINGS/AEROFOILS:**

Will be collapsible or detachable on contact **AND MAY NOT BE USED AS A BUMPER.**

**28. ENGINES:**

Only 250cc 2/stroke, 400cc 4/stroke or 600cc 4/stroke engines from motorcycles built for normal road use in accordance with **PROVINCIAL ROAD ORDINANCES** are allowed.

➤ **General:**

1. No NOS, turbo- or superchargers are allowed
2. The use of generic pistons is allowed.
3. Air boxes are recommended but not mandatory.

**Class C:**

➤ **250cc Two strokes:**

1. Motor:
  - Open modification allowed.
2. Electronics:
  - Open modification allowed.

➤ **400cc Four strokes:**

1. Motor:
  - No modification allowed with a limit of 1.0mm oversize on pistons allowed for wear.







2. Electronics:
  - No modification allowed.

**Class B:**

- **600cc Four cylinder/ 650cc Twin:**
  1. Motor:
    - No modification allowed with a limit of 1.0mm oversize on pistons allowed for wear.
  2. Electronics:
    - Alternatives are allowed, but are to be tested to assure that no further modification has been made.
  3. Age limit on motor
    - Motors must be older than 4 years to be allowed for use in Formula M Class B

**Class X:**

- **All Motor specs not classified as Class B or Class C will be classified as Class X**

**29. TECHNICAL COMMITTEE:**

The following two persons will be referred to as “The Technical Committee” for the 2018 season:

- Dirk Booyesen
- Roy Reed
- DJ Booyesen

