



REGULATIONS AND SPECIFICATIONS FOR THE 2019 MSA SAES ENDURANCE SERIES (161711/144)

In addition to the Supplementary Regulations issued for various events, these basic rules and regulations will apply as if they form part of said Supplementary Regulations:

1. Eligibility.

- 1.1. The 2019 MSA National South African Endurance Series is open by invitation to all Saloons, Sports & GT, Sports Racing and Prototype Sports Racing Cars all with closed wheel vehicles complying with technical regulations as published by MSA, the FIA or as determined as eligible by the Organisers from time to time.
- 1.2. Drivers are required to hold the minimum of an MSA National Licence to compete in the MSA National Endurance Championship.
- 1.3. The aim of the Series will be to declare an overall MSA National, an overall MSA National Endurance Index of Performance Champion
- 1.4. Class winners will be as listed in rules 6.1, 6.2, 6.3, and 6.4.

2. Events.

The Calendar for the 2018 South African Endurance Series as issued by MSA is provisionally:

Circuit	Domicile	Distance	Date
1. Phakisa	Welkom	6 Hour	26 th January 2019
2. Killarney	Cape Town	4 Hour	16 th March 2019
3. Aldo Scribante	Port Elizabeth	4 Hour	25 th May 2019
4. Zwartkops	Pretoria	4 Hour	29 th June 2019
5. EL GP Circuit	East London	4 Hour	3 rd August 2019
6. Phakisa	Welkom	4 Hour	5 th October 2019

3. Entries.

3.1 The entry fee for events is R1250.00 per advertised hour of event duration.

3.2 All entry fees include MSA fees and transponder fees for one car and 10 entrance tickets.

Entry fees must be sent to:

SAES (Pty) Ltd
Po Box 590
Pinegowrie 2123
roger@afriod.co.za

Banking Details:

Bank: First National Bank
Acc No: 62739097667
Branch: 256755
Swift: FIRNZAJJ

The entry and closing dates for entries will be advised before each event.

4. Teams and Drivers.

- 4.1. A maximum of four drivers per car/entry is allowed for all events.
- 4.2. A minimum of 2 drivers must drive the car during the race for the entry to be qualified as a finisher.
- 4.3. All entered drivers per entry must each drive for a **minimum** of 45 minutes during a race. Failure to comply by up to a period of 5 minutes will result in a penalty based on double the shortfall and a shortfall of over 5 minutes will result in the exclusion of the entry from the event results.
- 4.4. Each Team must have a Team Manager who may not be a driver.
- 4.5. A driver may drive for only one entry during an event.
- 4.6. A team may comprise of a maximum of 4 drivers, 1 Team Manager and 5 Pit crew. Additional persons may be utilized within the pit garage at the team's own circuit entry costs.

5. Tyres.

- 5.1. Tyre type and size and the number thereof are free except in Classes A & V where slick tyres may not be used.

6. Classes.

Classes are based on the declared capacity on the entry form.

6.1 Saloon Cars:

Class A 0 to 1999cc. – Restricted and on application. No slick tyres and no force induction engines.

Class B 0 to 1999cc – Cars built to a maximum of FIA TCR regulations.

Class C 2000 cc and above. Open technical regulations

6.2 Sports Racing Cars:

Class S Up to 2999 cc.

Class T 3000 cc and above

Class V No slick tyres and no force induction engines allowed. Maximum engine size allowed is 2000cc.

6.3 Production Sports & GT Cars:

GT3 – Cars complying with FIA GT3 regulations found under FIA Appendix J Article 257A on the FIA website.

GT4 - Cars complying with FIA GT4 regulations found under FIA Appendix J Article 256 on the FIA website.

GT5- Cars not complying with FIA GT3 and GT4 and accepted by the SAES Technical Team.

6.4 Prototype Sports Racing Cars-Converted Single Seaters not meeting the specifications of Sports Racing Cars 6.2

Class N Up to 2999 cc

Class O 3000 cc and above.

SAES retains the sole right to determine which cars fall into this class.

- 6.5 The penalty for a false declaration will be exclusion from an event.

- 6.6 Vehicles with forced induction and all Rotary engine vehicles will be subject to an equivalency factor of 1.4 by which their actual capacity will be multiplied to determine a capacity for classing purposes.

- 6.7 Forced induction Rotary engines will be subject to an equivalency factor of 2.0

- 6.8 Forced induction is not permitted on Class A and V vehicles.

7. Scoring.

- 7.1. Points will be awarded as per Appendix B of these regulations.

- 7.2 For inclusion in the Overall and Class Championship scoring a driver must have finished and scored in not less than three rounds of the 2019 Championship.
- 7.3 The Index of Performance target lap time is determined by taking the two fastest laps set by a car during the event and dividing this total by 2 to achieve a smoothed target lap time. This time is then used to calculate which entry came closest to its overall race time based on the target time.

8. Trophies per Race Meeting.

Overall:

1st overall

2nd overall

3rd overall

Index of Performance:

1st overall, 2nd Overall, 3rd Overall

Classes:

1st to 3rd depending on the number of entries.

9. Qualification as a Finisher.

- 9.1. A vehicle must cross the finishing line under its own power on the circuit after the chequered flag has been shown to qualify as a finisher. A vehicle may not be pushed at any time by any means during an event except by track officials except where the vehicle has reached the pit entry line and may be pushed by personnel authorised to be on the pit lane.
- 9.2. A vehicle must complete 70% of its class race distance to qualify as a finisher.
- 9.3. Race distance will be defined as the number of laps completed by the leading vehicle in each class. Should there be only one vehicle or should only one car in a class finish, the organisers will determine a class race distance based on 70% of a race distance calculated by using the historical lap times of a car in that class.
- 9.4. All drivers are required to complete a total of 45 minutes minimum driving during an event. Should any driver within a team not complete his/her minimum period none of that driver's 45 minute time will count towards that teams result. Should a driver suffer a mechanical breakdown or any other misfortune during a race the time taken to recover and or repair will be included in that drivers 45 minute total.

10. In-car timing and Data Logging.

In car timing is and data logging is permitted.

11. In-car communications.

In car communication (ship to shore) is compulsory except in classes A and V where it is recommended.

12. Qualifying.

- 12.1. Qualification times will only be taken from the official qualifying session for the event. Only one driver is required to qualify a vehicle unless otherwise advised in the event SSR's.
- 12.2. Vehicles failing to qualify in the official session will, at the discretion of the C.O.C, be placed at the back of the grid or their relative class.
- 12.3. A minimum qualifying time may be applied.

13. 60KPH Board.

- 13.1. A 60 kph board along with a yellow flag will be shown which means that all cars shall drop to an estimated speed of 60kph. Cars shall hold their position in relation to cars ahead of themselves and may not close the distance to the car ahead and they may also not drop back from the car ahead of themselves. The 60kph period will end when the yellow flags and 60kph boards are withdrawn and green flags are shown.

13.2 Pit stops are allowed during a 60kph period.

14. Red Flag.

14.1 Vehicles will be stopped on the circuit start grid in race position unless stated otherwise by race control.

14.2 Drivers may take refreshments during a red flag stop but must remain in the vehicle.

14.3 Vehicle may not be worked on during a red flag stop but windscreens or visors may be cleaned.

14.4 Vehicles may not enter or exit the pits during a red flag stop.

14.5 A TWO minute board will be shown to signal a rolling restart behind a safety car.

15. Fuel.

15.1. A maximum of 100L on board fuel capacity is permitted unless a car has a greater fuel capacity as homologated by the FIA. Entrants must supply the organisers with the relevant FIA Homologation Document or Number so as to verify the fuel capacity of the car. Entrants not complying with any part of Rule 15 may be excluded with immediate effect.

15.2. Only Petrol and Diesel based fuels as specified by MSA GCR240 are allowed. Octane boosters specified as in GCR240 are allowed.

16. Refuelling.

16.1. Only refuelling equipment as specified in Appendix A of these regulations may be used.

16.2. A maximum of 5 crew members may refuel a car whilst the car is on Pit Road only at any times before or during an event.

16.3 Drivers may remain in a vehicle or conduct a driver change during refuelling. Only a fully cladded crew member or driver attired as per rule 16.7 may assist in the changeover of an incoming or outgoing driver.

16.4 A team must have a minimum of five 9kg dry powder or equivalent fire extinguishers. Four of these must be placed within easy reach of the refuelling crew on the pit lane and the fifth, with its safety pin deactivated, must be held by a crew member and faced towards a refuelling operation. All fire-extinguishers must carry a current sold by date or a current service date.

16.5 The vehicle engine must be shut down during refuelling and may not be started until refuelling is complete.

16.6 A wet blanket must be placed over the wheel or exhaust area closest to the vehicles fuel intake point. The blanket must be of suitable size to cover the vehicle wheel or exposed exhaust area.

16.7 All refuelling crew shall be attired with a fire proof balaclava, fire proof gloves and a fire proof suit or overall.

16.8 The refuelling crew shall be comprised of one crew holding a readied fire-extinguisher as in 16.4; one holding the refuelling device and one manning the shut off valve on the refuelling rig, if used. The shut off valve must be manned at all times during the refuelling process.

16.9 No refuelling is allowed in the Pit Garage.

16.10 No work of any nature is allowed on the vehicle whilst it is being refuelled.

16.11 Vehicles may be refuelled by gravity feed only.

- 16.12 Bulk fuel may not be stored in the Pit Garage or Pit Front at any time.
- 16.13 The refilling of fuel rigs with electric pumps is not permitted unless the equipment complies with FIA standards otherwise only manual or air pressure pumps may be used.
- 16.14 No booms may cross the pit lane at a height of less than 1.90 meters.
- 16.15 Fuel spillage of any nature will subject the vehicle to a drive through penalty.
- 16.16 All cars must be connected to an earth point whilst refuelling.
- 16.17 Contravention on any of the above items will be penalised by penalties of up to and including exclusion from the event.
- 16.18. Class A & V cars may only be refuelled by means of fuel churns as listed in Appendix A Section D of the 2019 MSA SAES National Championship Endurance regulations.

17. Pit Lane.

- 17.1 Only 5 technicians are allowed to work on a car whilst it is stopped in front of the Pit Garage on Pit Lane.
- 17.2 Drivers and Team Managers may be part of the 5 technicians but not in addition to.
- 17.3 Wheels may be changed on the Pit Lane.
- 17.4 Fluids and lubricants may be checked and topped up on the Pit Lane.
- 17.5 No mechanical or electrical work may be carried out on the pit lane.
- 17.6 Vehicles may not be push started during the race and the penalty for doing so is a drive through penalty.
- 17.7 Vehicles leaving the pit area may be assisted with a push by crew if it is attempting to pull off under its own power.
- 17.8 The Pit Lane Director only will enforce any instructions received from the C.O.C.
- 17.9 The Pit Lane Director will only communicate with the Team Manager.

18. Pit Garage.

- 18.1 Car engines may be started in the Pit Garage with the sole intent of removing the car from the pit garage immediately. Cars may not be started in the pits for engine testing purposes.
- 18.2 Cars must be pushed into and out of a Pit Garage.
- 18.3 There is no restriction on how many people may work on a car in a Pit Garage.
- 18.4 No fuel may be stored in the Pit Garage.
- 18.5 No smoking, alcohol or children under the age of 16 (sixteen) is/are permitted in the Pit Garage at any time.
- 18.6 If any major components are changed during the race approval must be obtained from a Scrutineer to rejoin the race after inspection of the repair.
- 18.7 Only persons wearing an accredited wrist band may enter the pit garage or pit service apron during an event.
- 18.8 All cars must use an environmental mat when in the pit garage or the pit lane as per Appendix D of these regulations.

19. Pit Wall.

19.1 When the pit lane entrance is open only persons carrying a Pit Crew accreditation wrist band are allowed on the pit wall area during a race, free practise and qualifying sessions.

20. Race Start and Finish Procedure.

20.1 Race starts will be conducted by way of a rolling start unless otherwise stated in the event SR's.

20.2 The Pit Lane will be opened Fifteen Minutes, or as specified otherwise in the event SSRs, prior to the scheduled start of the race.

20.3 The pit lane exit will close Five minutes before the official race start and will reopen at the race start

20.4 The pit lane exit will close Five minutes before the race officially ends.

20.5 GCR272 (111) will not be applied for the last lap of the race.

21. Out-side Assistance.

21.1 In the event of a vehicle breaking down on the circuit, no outside assistance is permitted other than by the track officials who may move the vehicle to a safe position or position the vehicle for towing the vehicle back to the pits. Such assistance may be used to restart the engine.

21.2 A vehicle may only be returned to the pit area only by means of it being towed behind a support vehicle by means of a tow strap. A roll back or trailer may be used to return the vehicle to the pits during a race if directed by race officials.

21.3 Only the driver is permitted to make repairs outside of the designated pit area during a race

21.4 No refuelling or replenishment of fluids or lubricants is allowed on the circuit.

21.5 The penalty for non-compliance of any of any of Rule 21 is possible exclusion.

22. Lighting.

22.1 All vehicles will be required to have the following lights operating at scrutineering and during an event as per 22.2, 22.5, 22.6 and 22.7.

22.2 Two operating Headlamps mounted in their original positions or as per 22.4. A headlamp may contain a multiplication of elements within the same housing.

22.3 A maximum of two additional front facing spotlights may be fitted.

22.4 Unless original equipment, no front facing lamp, as in 22.2 and 22.3 above, may be fitted so that the top of the lamp protrudes above a line drawn from the front of the cockpit area or the base of a wind screen to the highest forward part of the cars bodywork forward of the cockpit area with the exception of Lotus Seven type vehicles which may have their headlamps fitted in their traditional position. Any extra lamps as in 21.3 on this type of vehicle must be fitted lower that the two headlamps. No lamp may exceed 200mm in lens diameter or length.

22.5 One operating tail lamp.

22.6 One operating Brake Light.

22.7 Front and rear working indicators as originally fitted to the vehicle if required by category regulations.

22.8 A maximum of two small forward facing recognition lights may be fitted. These may be of any colour except Red. If strip lights are used they may not be more than 150mm in length.

- 22.09 Lights must be turned on when advised by race officials by way of a LIGHTS ON board which will be displayed at the start line for 3 Laps.
- 22.10 Vehicles which do not display the operating lights as specified in Rule 22 will be black flagged during an event and must return to the pits to repair any faults or damage.
- 22.11 No additional light may be added to a vehicle during an event.
- 22.12 No rear facing white coloured light is permitted.

23. Communications and Timing.

- 23.1 All events will operate as an internet based system and there will be no paper records.
- 23.2 Teams must be equipped with the necessary Lap Tops, PCs etc to log onto the internet or wi-fi to follow the progress of the event and to receive instructions.
- 23.3 Screens will update as soon as the system allows.
- 23.4 Each driver shall have a separate timing transponder which must be changed at every driver change during practice sessions and the race.
- 23.5 Transponders may not be fitted to a driver's helmet.

24. Car Recognition.

- 24.1 A vehicle will retain the same number for a season. The number 1 (one) is reserved for the previous seasons Series winner.
- 24.2 It is compulsory to fit a decal either side of a vehicle showing each driver's name and each driver's Country of Domicile.
- 24.3 The organisers reserve the right to fit sponsors decals to a car.
- 24.4 Class declaration decals must be fitted as supplied by the organisers.

25. Silencing.

- 25.1 It is compulsory that cars do not exceed an exhaust noise level measured and set as per SAES Appendix C where stated in an events regulations. Silencers are not compulsory fitment.

26. Tow Straps.

- 26.1 All cars must be fitted with front and rear tow hooks or straps. Should a tow point not be available during a recovery the recovery crew will attach their towing equipment to any convenient point on a car and any ensuing damage will be for the responsibility of the entrant.

27. Drivers Apparel.

- 27.1 All drivers' apparel must be presented at scrutineering for examination. Race suits must comply with a minimum LEVEL 3 as specified in MSA GCR239. GCR239 will apply to all safety items.

28. Bodywork.

- 28.1 Cars may not take part in a qualifying session or a race without any part of the bodywork as presented at scrutineering.

29 Documentation & Scrutineering.

29.1 Documentation, scrutineering and qualifying will take place on Friday preceding the Saturday of each event unless advised otherwise in the event SR,s.

29.2 Failure to attend Drivers Briefing by the Team Manager or all drivers will result in a drive through penalty for the Team concerned within the first five laps of the race.

SA Endurance Series Appendix A **Refuelling Systems**

A. FIA Approved Single and Twin Nozzle Systems.

The refuel systems must carry a current FIA Label of Approval as per Appendix 252-7 which is available on the FIA website as a download. **It is the responsibility of the entrant to prove that the system is FIA approved.**

B. Non FIA Approved Fuel Rigs with a standalone Tank.

1. Only a single refuelling hose of a maximum of 38mm I.D. may be used.
2. The fuel delivery hose to the car must be fitted with a shutoff nozzle with a maximum of 33mm I.D. at its exit into the car fuel tank entry port.
3. All hosing used must be to S.A.B.S fuel hose standards.
4. The maximum refill storage tank capacity is 200L.
5. The top of the storage tank may not be higher than 2000mm from the ground.
6. The maximum diameter of the fuel storage may not exceed 1000mm.
7. The fuel storage tank must be fitted with a vent pipe on top of the storage tank. The vent pipe shall be of a minimum 13mm internal diameter and 1000mm in length. The top of the vent pipe will be fitted with a flame trap.
8. A manually operated shut off valve shall be fitted between the outlet hose or pipe directly at the tank.
9. The fuel rig must be earthed at all times via a minimum 10mm earthing cable.

C. FIA and Other Approved Fuel Churns.

1. FIA approved and other churns supplied manufacturers which are SAES approved may be used.

D. Non FIA Approved Fuel Churns.

1. Non FIA approved by SAES may be used as long as they meet the requirements of SAES Scrutineers as follows:
 - A. The churn may not hold more than 30L
 - B. The churn outlet nozzle must be a minimum length of 200mm and the internal diameter of the delivery nozzle may not exceed 33mm.
 - C. The churn must be fitted with a shut off valve on the delivery hose.

No other fuel systems will be allowed unless approved by SAES scrutineers.

SA Endurance Series Appendix B 2019
Points Scoring all Events

Appendix B	2019
Position	Points
1	50
2	40
3	35
4	30
5	28
6	26
7	24
8	22
9	20
10	18
11	16
12	15
13	14
14	13
15	12
16	11
17	10
18	9
19	8
20	7
21	6
22	5
23	4
24	3
25	2
Finish	1

SA Endurance Series Appendix C

SOUND MEASUREMENT

1.1 The measurement of sound levels will be made by placing the microphone at a distance of 50cm from the end of the exhaust pipe at a 45° angle and at the level of the exhaust outlet.

1.2 In the case of rear engine Sports and GT cars, the same test procedure as above may be carried out by placing the microphone at a distance of 2m from the end of the exhaust pipe at a 45° angle and at the level of the exhaust outlet.

1.3 Where more than one exhaust outlet is present on the machine, the test must be repeated for each exhaust outlet and the highest reading will be the representative reading.

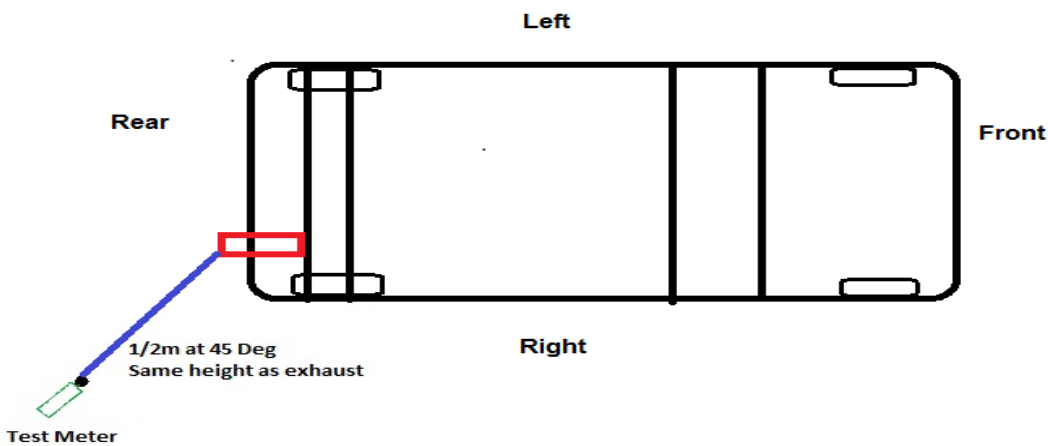
1.4 In circumstances where the exhaust outlet is not immediately available or accessible, the test may be conducted at a distance of 2 meters from the centreline of the vehicle with the microphone at the same height as the exhaust outlet.

1.5 Background noise should be at least 10 dB (A) below the measured level. It is necessary that there is a minimum of 20 meters radius open flat space around the vehicle. Where possible, measurements must be taken as close as possible to the vehicle, at the defined distance to avoid background noise.

1.6 The static sound level limit at is 108dBA at the ½m test and 99dBA at the 2m test.

1.7 A drive by sound test may be conducted at a maximum sound level of 96dBA

1.8 Engines must be revved to 75% of the maximum (red line) limit for the test.



SA Endurance Series Appendix D Environmental Mats

1. Environmental mats must be composed of an absorbent upper part (top) and an impermeable part underside (bottom). Use of mats (or other effective ground protecting devices/systems) is compulsory wherever work on vehicles is allowed by the organisers.
2. The whole area underneath the vehicle, where there is the prime probability of fluid spills, must be covered with a ground protecting sheet or environmental mat.
3. In combination with the environmental Mats or ground sheets, other ground protecting systems like fluid absorbent material, oil spill kits, etc. can be used to clear spillages. These materials must be disposed of in a hazardous waste container.
4. Under no circumstances may these mats be disposed of in a standard refuse bin. A hazardous waste container must be available at a designated point. Any damaged mats **MUST** be disposed of in this container. Alternatively, the soiled mats can be placed in a sealed plastic container for disposal by a hazardous waste disposal company.
- 5 **For use on a concrete, tiles or closed surface a non-absorbent groundsheet is considered adequate for use as an environmental mat.**
6. If required, absorbent environmental mats are available from MSA offices.

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