



MOTORSPORT SOUTH AFRICA NPC

Reg. No 1995/005605/08

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MSA RALLY RAID CIRCULAR 3 OF 2023

Affected parties are hereby advised that the following changes to the MSA SA Rally-Raid National Regulations are made with immediate effect:

REGULATIONS APPLICABLE TO SA RALLY-RAID CHAMPIONSHIP

PART 1: APPLICABLE TO ALL EVENTS

311. SERVICE CREWS/OUTSIDE ASSISTANCE

- [v] Outside assistance from other competitor/s who **are** still competing, or the crew, may repair the vehicle on route with what is carried on board their race vehicle, or an assisting competitor's **race** vehicle, without penalties. Impromptu outsider assistance may be **acceptable if really impromptu. eg. car overturns, spectators pick up. Farmer's tractor pulls car out of donga. The Clerk of the Course, Timing and Tracking Manager and the CRO will decide the impromptu validity.** No team members, relatives, friends, business associates, etc. will be allowed to **assist the crew**. A broken down **or stranded** vehicle may NOT be recovered or be repaired on the race route **or outside the DSP** without the written permission and instructions from the Clerk of the Course. Should the recovery team be able to repair the car **on route, or in the DSP**, the crew may continue with a 5hr penalty to be added to the competitor race time. Refer SSR 318 A [viii] a). Timebar will not be extended for DSP out, or for the race, when assistance was received. Should outside assistance be called in and found on the race route **or outside the DSP** without written permission from the Clerk of the Course, a severe penalty **will be applied**, which may include exclusion Refer SSR 318 A [x] f) or a race ban in terms of SSR 318 B [i] g).

314. STARTING ORDER

- [v] **SA Rally-Raid Championship National Seeding System.**
The National Seeding System is used to determine starting orders for the qualifying race and main races:
- Seeding system only uses real qualifying race times as recorded on the official timing system without penalties.
 - Qualifying times from the last 24 **12** months will be taken into account.
 - The best four **qualifying** times of each competitor will be taken into account.
 - If a competitor has less than four qualifying times his/her average will be calculated on the **available** times.

MOTORSPORT SOUTH AFRICA IS THE ONLY RECOGNISED MOTORSPORT FEDERATION IN SOUTH AFRICA



sport, arts & culture
Department:
Sport, Arts and Culture
REPUBLIC OF SOUTH AFRICA

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Mrs. D Abrahams, Mrs. D. Ballington, K. Govender, M. Hashe, FC. Kraamwinkel, C. Oates, S. Themba, G. Waberski
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- e) If a competitor has only one qualifying time, he/she will be seeded behind the competitors in d), unless the competitor has a previous lapsed/*historic* seeding in which case the Clerk of the Course, Timing and Tracking Manager and the CRO may determine his/her starting *position*.
- f) Each competitor's qualifying race time will be *used to* calculate a percentage of the leading competitor's *qualifying* race time *taken as* 100%. *Competitor's percentages will be ranked from highest to lowest to create the seeding list. The seeding list is updated after every event.*

318. PENALTIES

- A. The following timing penalties will be imposed by the Clerk of the Course in consultation with the Competitor Relations Officer and where such penalties are applied, it shall not be necessary to hold a hearing with competitors. Refer GCR 157.
 - [v] **Fifteen (15) Minutes**
 - f) *Reserved For allowing the inlet manifold boost pressure to exceed 30 mB*sec more than four times as indicated. Refer SSR part 2 art 3.4.3.4 [iii] and [iv].*
 - [vi] **Thirty (30) Minutes**
 - a) *Reserved For allowing the inlet manifold boost pressure to exceed 100 mB*sec. Refer SSR Part 2 art 3.4.3.4 [iii] and [iv].*
 - [x] **Exclusion**
 - c) *No logged or partial logged turbo engine data may lead to a penalty of exclusion. Refer SSR Part 2 art 3.4.3.4.i)*

SA RALLY-RAID CHAMPIONSHIP

PART 2: CLASSIFICATION AND VEHICLE SPECIFICATIONS

3.3. FIA Classes

All performance controls and monitoring will be based on the *latest* FIA regulations, circulars, and related documents. *Refer SSR Part 2 art 13.2.*

3.4 SA Rally-Raid Turbo Procedure

- 3.4.1 In FIA Championship Cross Country events, the FIA requires engine calibration and homologation at the FIA appointed hub dyno in Allonzier-la-Caille, France. Note. During international FIA races the FIA requires performance monitoring using a tailor-made Marelli data logger. For SARR events the monitoring procedure will be by way of the private area in the Motec M124 ECU specifically configured to mimic the FIA requirements as stipulated in *SARR art's 3.4.2.1, 3.4.2.2 and 3.4.2.3.* Should a competitor choose to run an international FIA homologated car utilizing an ECU which is not Motec, then the competitor must apply to the MSA TC for permission to use a Motec Data Logger which will require a specific harness. This logger will mimic the FIA Marelli logger in all aspects of control monitoring.
- 3.4.2 To assist entrants in the SARR T1 turbo classes with non-homologated engines, performance monitoring may be done using a Motec M142 ECU and data logger. The Motec datalogger programmed by MJR Technologies, Zwartkops Raceway, to mimic exactly the FIA Marelli data logger performance monitoring procedure.
- 3.4.3 The local performance monitoring procedure to be as described in the latest versions of the following *two* FIA documents and *SSR 3.4.3.4:*

3.4.3.1 **FIA Appendix J Art 285.5.1.3**

3.4.3.2 Reserved (~~***FIA Cross Country Rally Sporting Regulations***~~)

3.4.3.3 **FIA T1 supercharged petrol engines, process to add a T1 supercharged engine to the list & monitoring of such engines:**

FIA Art 3 Paperwork: engine description and engine performance layout.

FIA Art 3 a) The engine technical form:

- if the engine has been homologated and published by the FIA, the FIA document, T1 T-C petrol engine technical form, will be applied to the local engine.
- if the local engine does not have a FIA Technical form, the MSA TC's will create a MSA technical form based on the FIA template.

FIA Art 3 b) The Mandatory Sensors Positioning Form:

- if the engine has been homologated by the FIA, the FIA document will be applied to the local engine.
- if the local engine does not have a sensors positioning form, the MSA TC's will create a MSA sensors positioning form based on the FIA template.

FIA Art 3 c) The engine performance evaluation data:

- i. Performance target. The latest version as published by the FIA, including all updates.
- ii. Datasheet and Engine Performance Evaluation.
 - if the engine has been homologated by the FIA, performance evaluation will be as per ***FIA T1 supercharged petrol engines, process to add a T1 supercharged engine to the list & monitoring of such engines, including App I - List of T1 Supercharged engines.***
 - if the local engine does not appear in ***App I***, a local dyno test will be performed on the MJR hub dyno according to ***FIA art 3 c) i & ii to determine a set of boost ratios@rpm for the engine to match the performance target.***
 - The MJR dyno cannot measure transmission losses and a conservative estimated value will be chosen. The entrant may be required to forfeit championship points should a similar engine be FIA homologated at a later stage with lower boost ratio values.
 - The balance of performance of non-FIA homologated engines may be adjusted by the TC's if required.

FIA Art 6 Racing and Monitoring: ***FIA Art's 6 a) to d) are applicable. Marelli logger replaced by Motec M142.***

3.4.3.4 Requirements for SARR Championship events:

- i. The data must be logged when the car is running from start control to end control and must be made available to the SARR TC's whenever requested *at any time before, during, or after a SARRC event. No data or partial logged data may lead to a penalty of exclusion. Refer SSR 318 A [x] c)*
- ii. *Data to be logged for download is the following:*
 ambient air pressure (FIA 5.1.3.4)
 ambient air temperature (FIA 5.1.3.4)
 inlet manifold pressure (FIA 5.1.3.4)
 inlet manifold air temperature (FIA 5.1.3.4)
 engine crankshaft speed and TDC position (FIA 5.1.3.4)
 lambda (FIA 5.1.3.4)
 ignition timing
 throttle position
 BoP max boost ratio@rpm
 BoP penalty count
 rpm at the 100% BoP curve as chosen (rev limit)
 gear selected
 GPS speed
 distance from start
 time and date stamp
- iii. Overboost will be recorded *as per FIA Art 6.c*
*Inlet manifold absolute pressure (Pboost) will be recorded by a rolling average algorithm which will average short duration boost spikes. The algorithm will record pressure transgressions exceeding the boost target setting. Transgressions which exceed 30mBar*sec will be recorded as incidents. When boost drops below target, the incident will decay. Four such incidents will be allowed per TC download per race section. Five and more incidents will incur a penalty of 15 minutes each. One 100mBar*sec overboost will incur a penalty of thirty minutes each per TC download per race section.*
- iv. The Clerk of the Course *will apply penalties as prescribed in SSR 318 A [v] f), [vi] a) and [x] c)* and may increase the penalty for repeated offences.

ISSUED ON BEHALF OF THE MSA NATIONAL RALLY-RAID CAR CHAMPIONSHIP PROMOTER



VIC MAHARAJ
SPORTING SERVICES MANAGER

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