



# **Group S Racing Association**

## **Class Structure Review**

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January 2017

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# OBJECTIVE

This review is to assess the current Group S class structure to ensure it meets the current needs of members as the basis for the GSRA point score, the determination of awards, and the recording of class lap records.

The following (non-exhaustive) elements are to be considered:

- An adequate number of classes to enable an equal number of cars (as much as possible) in each category's classes;
- A structure consistent with the historical (1940s-1970s) race classes of the cars that today compete in Group S;
- A structure that creates (as far as possible) an even playing field for competitors to race within a class whereby an similar chance of winning the class (assuming a driver of similar capabilities).



# METHODOLOGY

Several methodologies require consideration to implement a change of the class structures. Therefore the following aspects have been assessed;

1. Competitor opinions and comments;
2. Analysis of competitor numbers over the last year/s;
3. Analysis of total cars competing in each Group S category
4. Comparison with other historic groups ;
5. Historical analysis of class structures when vehicles first raced to preserve the history;
6. Controlling bodies class structures eg FIA and CAMS;
7. A class structure based on equivalent performance.



# CURRENT GROUP S CLASS STRUCTURE

Current class structures for each Group S Category are as follows:

## **SA**

- Saa up to 1300cc                      Sab 1301cc to 1800cc                      Sac over 1801cc

## **SB**

- Sba up to 1300cc                      Sbb 1301cc to 1800cc                      Sbc 1801cc to 3000cc  
Sbd over 3001cc

## **SC**

- Sca up to 2000cc                      Scb 2001cc to 2600cc                      Scc 2601cc to 3500cc  
Scd over 3501cc



# CURRENT GROUP S COMPETITOR VEHICLE OVERVIEW

Category	Total	% of total
Sa	9	9%
Sb	52	50%
Sc	43	41%
<b>Total</b>	<b>104</b>	100%

Vehicle Origin	Total	% of total
Germany	19	18%
Italy	25	24%
Japan	7	7%
South Africa	1	1%
UK	41	39%
USA	10	10%
(blank)	1	1%
<b>Total</b>	<b>104</b>	100%

Class	Total	% of Class
Saa	2	22%
Sab	2	22%
Sac	5	56%
Sba	10	19%
Sbb	20	38%
Sbc	12	23%
Sbd	10	19%
Sca	18	42%
Scb	4	9%
Scd	17	40%
Scd	4	9%
<b>Total</b>	<b>104</b>	-

Class	Cylinders	Total
Saa	4	2
Sab	4	2
Sac	4	4
	6	1
Sba	4	10
Sbb	4	20
Sbc	4	2
	6	10
Sbd	8	10
Sca	4	18
Scb	6	3
	8	1
Scd	6	17
Scd	8	4
<b>Total</b>		<b>104</b>



## MEMBERS OPINIONS AND COMMENTS

- The majority of those comments provided on the existing class structure were those in Sb with a capacity between 1801 to 2000cc, and them having to compete with vehicles up to 3000cc. All of those proposed a change to a return to a class comprising 1601 to 2000cc. This option certainly could be implemented, and would return the class structure to that seen prior to the change a few years ago.
- Some members expressed the GSRA adopt historical significant race class structures such as those applied in Europe.
- In previous years some members had suggested all three Group S categories be split under and over 3000cc. This has not been voiced recently however this option could be considered. However this solution could unfairly benefit the higher capacity cars in the under 3000cc category, and no real change to the current over 3000cc results.



# ANALYSIS OF COMPETITOR NUMBERS

- Reviewing past grids solely is not a good indicator of the future grid make up.
- Reviewing 2016 meetings, the spread of vehicles does not reveal class clustering, however there are a number very small competitor classes (Saa, Sab, Sac, Scb, Scd).
- Group S has seen a decrease in Sa cars, now representing just 9% of all competing cars in 2016. It could be beneficial for a rationalisation of the Sa classes so that smaller capacity cars have a reasonable chance of higher points, and therefore ability to win or place in the overall Sa Category.
- In Sb the majority of cars are in the two middle capacity classes. Sbd being V8 cars (10 in total), and Sba being small capacity 4-cylinder cars (also 10 cars). There were 32 vehicles spread between Sbb (20), and Sbc (12). A restructure as requested above would see the split being even more heavily skewed unless other changes were also considered.
- Sc sees two distinct larger classes being Sca and Scc, and two distinct smaller classes being Scb (predominately Datsuns) and Scd (V8s) with just 4 cars in each. The larger classes are made up of 4-cylinder cars (predominately Alfas), whilst Scc mainly comprises Porsches. Most possible restructures would still result in the over 3000cc cars being the smallest class in Sc.



## ANALYSIS OF TOTAL MEMBERS IN GSRA

- In 2016, of 167 members, just 104 competed at least once, therefore approx. 62% of members could be deemed 'active racers'.
- Basing classes upon actual member cars rather than those that compete may lead to clustering and/or redundant classes.

## COMPARISON WITH OTHER HISTORIC GROUPS

- Group N is a long established 5<sup>th</sup> category who's event entries being often similar to those of Group S.
- CAMS lists nineteen (19) Group N classes; four in Na, eight in Nb and seven in Nc.
- There is little commonality between the three Group N classes; Na 1101 to 1500; Nb 1301 to 1600; and Nc 1501 to 2000.
- It is assumed that these classes have been set up around specific vehicles.
- It could be considered that Group N has too many classes and the Group N structure does not suit vehicles in Group S.





# HISTORICAL CLASS STRUCTURES

- A review of old race programs, result sheets and race reports of the 1950s and 1960s shows that the most common class structures for sports cars were as follows;
- 0 to 1300cc      1301 to 2000cc      2001 to 3000cc      Over 3001cc
- What becomes clear in this review is there are clear class markers of 2000cc and 3000cc throughout recent time.



# CONTROLLING BODIES CLASS STRUCTURES FOR HISTORIC SPORTS CARS

- The FIA list 15 capacity classes for historic sports cars but allow promoters freedom to combine or vary the classes. The classes are;
- This class structure seems to have far too many classes, but notably also aligns again the 2000cc and 3000cc markers. Equally it shows 1600-2000cc as a class.
- CAMS class classifications for 5<sup>th</sup> Category Historic cars states “As may be specified in regulations”. The nearest class structure to Group S vehicles is Marque Sports Car classes which are as follows;

0 to 1300cc            1301 to 1600cc  
 1601 to 3000cc      3001 to 6000cc

### 253 Class Scale

Cars shall be distributed into the following 15 classes, according to their engine cylinder capacity:

- 1) Cars with an engine capacity up to 400 cc.
- 2) Cars with an eng. cap. above 400 cc. and inf. or equal to 500 cc.
- 3) " " " " " " " 500 " " " " " " " 600 "
- 4) " " " " " " " 700 " " " " " " " 850 "
- 6) " " " " " " " 850 " " " " " " " 1000 "
- 7) " " " " " " " 1000 " " " " " " " 1150 "
- 8) " " " " " " " 1150 " " " " " " " 1300 "
- 9) " " " " " " " 1300 " " " " " " " 1600 "
- 10) " " " " " " " 1600 " " " " " " " 2000 "
- 11) " " " " " " " 2000 " " " " " " " 2500 "
- 12) " " " " " " " 2500 " " " " " " " 3000 "
- 13) " " " " " " " 3000 " " " " " " " 4000 "
- 14) " " " " " " " 4000 " " " " " " " 5000 "
- 15) Cars with an engine capacity over 5000 cc.

- The FIA and CAMS do not provide any specific guidance for Group S classes other than to note again the common cut off points of 1300, 1600, 2000 and 3000.



# CLASS STRUCTURE BASED ON EQUIVALENT PERFORMANCE

- This is probably the most difficult approach to take to determine a class structure as there is very little correlation between original engine capacity and performance from original specification sheets.
- Group S results show small capacity vehicles of 1300cc and 1600cc finishing at the front of the field well ahead of large capacity vehicle of 3000cc and greater.
- The GSRA, with the assistance of the Technical Officer (currently Bob Buck), is seeking to obtain weights for all competing vehicles in 2016/2017 to enable a review and potential introduction of minimum weight for Group S in the future. This data could assist in future class reviews.



## CONCLUSION

- Considering all of the above, there are some compelling arguments to change the existing Group S class structure.
- Benefits for a change would be providing a structure that would reduce the number of classes within each category, and therefore offer more available points for each race (due to increased competitor numbers in each class).
- A restructure should allow for an under and over 2000cc race to occur, which under the current class setup is unable to be done due to the Sb classes.
- A change to should more accurately reflect class structures which applied during the period in which Group S cars were originally raced.

## RECOMMENDATION

- The recommendation is that the committee give consideration to changing the Group S classes as follows, to be in effect from 1<sup>st</sup> January 2018.
- Additionally the GSRA should look to run in parallel the current and the proposed point system during 2017.

<b>Sa</b>	Saa - up to 2000cc	Sab - over 2000cc	
<b>Sb</b>	Sba - up to 1600cc	Sbb - 1600cc-2000cc	Sbc - over 2001cc
<b>Sc</b>	Sca - up to 2000cc	Scb - 2000cc-3000cc	Scd - over 3000cc

- Irrespective of the recommendations being adopted, it is recommend that the class structure again be reviewed in two years' time (2019).
- It is also recommended consideration be given to additional awards such as a “country of origin” to promote competition across all categories and classes.
- The Committee can by agreement revise the recommendations above, prior to the introduction on 1<sup>st</sup> January 2018 should any anomalies be identified during the 2017 season.



# RECOMMENDATION

- 2016 competitor distribution based on the class recommendations for 2018:

Class	Capacity	# Cars	% of Category
Saa	under 2000cc	4	44%
Sab	over 2000cc	5	56%
Sba	under 1600cc	12	23%
Sbb	1600 - 2000cc	26	50%
Sbc	over 2001cc	14	27%
Sca	under 2000cc	18	42%
Scb	2000cc-3000cc	21	49%
Scc	over 3001cc	4	9%

All Categories under 2000cc	60	58%
All Categories over 2000cc	44	42%