# **2017 National Sports Sedan Series** Sporting and Technical Regulations

Version 2

Published on 29th March 2017

		2017 National Sports Sedan Series	
S1		TITLE and JURISDICTION	4
	S1.1	Title	4
	S1.2	Authority / Jurisdiction	4
S2		ADMINISTRATION	4
	S2.1	Personnel	4
S3		COMPETITOR ELIGIBILITY	4
S4		AUTOMOBILE ELIGIBILITY	
	S4.1	Automobile Classes	4
	S4.2	Replacement Automobiles	5
S5		DRIVER ELIGIBILITY	5
	S5.1	Substitute Drivers	5
S6		SERIES ROUNDS	5
S7		SERIES CALENDAR	5
S8		ROUND FORMAT	
	S8.1	Round Format	5
	S8.2	Variations to Timetable	6
S9		GRID DETERMINATION	6
S10		START PROCEDURE	6
S11		AWARDS and POINTSCORE	6
	S11.1	Prizes and Trophies	6
	S11.2	Series Pointscore	6
S12		EVENT OPERATIONS	7
	S12.1	Series Registration and Entry	7
	S12.2	Entry Options	7
	S12.3	Driver/Team Manager Briefings	7
	S12.4	Impound/Parc Ferme	8
	S12.5	Qualifying	8
	S12.6	Pit Lane	8
	S12.7	Removal of Automobiles from the Circuit	8
	S12.8	Practice Starts	8
	S12.9	Automatic Timing – Data 1 Transmitter	8
	S12.10	Race Management Radio	9
	S12.11	MoTeC Lap Timing Beacon	9
S13		TYRES	10
S13 S14		MINIMUM RACING WEIGHT and ENGINE REV LIMITS	12

	2017 National Sports Sedan Series	
T1	PREAMBLE	13
T2	ELIGIBILITY	13
Т3	CHASSIS	13
T4	SAFETY CAGE	13
T5	BODYWORK	14
T6	SPOILERS/WINGS	15
T7	WHEELS AND TYRES	15
T8	WEIGHT	16
Т9	ENGINE	16
T10	DRIVETRAIN	17
T11	SUSPENSION	17
T12	BRAKES	18

# 2017 National Sports Sedan Series Sporting Regulations

# S1 TITLE and JURISDICTION

#### S1.1 Title

This Series shall only be known as and referred to as the "2017 National Sports Sedan Series".

#### S1.2 Authority / Jurisdiction

Each event in the 2017 National Sports Sedan Series (Series) shall be conducted under the provisions of the International Sporting Code of the Federation Internationale de l'Automobile (FIA); the National Competition Rules (NCR) and Race Meeting Standing Regulations (RMSR) of the Confederation of Australian Motor Sport Ltd (CAMS); the Sporting Regulations issued for this Series by The National Sports Sedan Series category administrator; the Technical Regulations as published by CAMS; Supplementary and Further Regulations issued by the Organiser at each round; Bulletins issued by the Stewards of the Meeting, and any Driver Briefing Notes issued by the Clerk of the Course at a meeting.

#### S2 ADMINISTRATION

#### S2.1 Personnel

The following personnel have been appointed to the Series by CAMS and have the authority to administer the various aspects of these regulations as detailed in the RMSR.

(a) Technical Commissioner (TC)	ТВА
(b) Category Administrator (CA)	Liam Curkpatrick

liam@curkpatrick.com.au 0438 033246

# **S3** COMPETITOR ELIGIBILITY

To be eligible to compete in the Series, each Competitor must hold a current CAMS Competitor's Licence.

# S4 AUTOMOBILE ELIGIBILITY

Each automobile must comply with the technical regulations as specified in Article S4.1 of these regulations.

#### S4.1 Automobile Class

Each automobile shall be allocated into one of the following class:

Class SS - Spaceframe chassis and floorplan Sports Sedans complying with the provisions of the CAMS Manual of Motor Sport – Race – 3<sup>rd</sup> Category: Touring Cars - Group 3D: Sports Sedans.

#### S4.2 Replacement Automobiles

Following the commencement of the first qualifying session of each round of the Series, any automobile that has been entered to compete at that round may not be replaced with another automobile.

# S5 DRIVER ELIGIBILITY

To be eligible to compete in the Series, each Driver must hold a current CAMS Provisional Circuit Licence (PC) or higher (unless noted otherwise in the Supplementary Regulations for a particular round of the Series) and be a member of NASSA Inc.

#### S5.1 Substitute Drivers

Prior to the commencement of the first qualifying session at each round of the Series, a Competitor may nominate a substitute driver who may be permitted to compete in the remainder of the meeting subject to the approval of the Stewards of the Meeting.

# S6 SERIES ROUNDS

The Series shall be conducted over five (5) Rounds as detailed in the Series Calendar below. Each race conducted as a part of the Series shall count in determining the final results.

# S7 SERIES CALENDAR

The Series shall be conducted over the following rounds:

Round	Date	Venue
1	1-2 April	Wakefield Park
2	17-18 June	Winton Raceway
3	1-2 July	Sydney Motorsport Park
4	30 Sept – 1 Oct	Phillip Island
5	27-29 October	Sydney Motorsport Park

# S8 ROUND FORMAT

The number, length and format of track sessions shall ultimately be negotiated and determined by the event organiser prior to a round of the Series and shall be advised in the relevant Supplementary / Further Regulations issued for a meeting.

#### S8.1 Round Format

Generally, the format for each round of the Series shall be as follows:

- (i) Private Practice Non Compulsory: Three (3) practice sessions where possible (normally Friday).
- (ii) Qualifying 20 minutes (normally Saturday).

(iii) Races - Three (3) races as detailed in the Supplementary/Further Regulations for each round of the Series.

#### S8.2 Variations to Timetable

The timetable may be varied at any time due to exceptional circumstances only with the prior approval of the Stewards of the Meeting.

# **S9** GRID DETERMINATION

The grid for each race shall be determined as detailed in the RMSR – Progressive Grid.

#### S10 START PROCEDURE

The start procedure for each race shall be as detailed in the RMSR - Non Championship Start - Rolling Start.

# S11 AWARDS and POINTSCORE

#### S11.1 Prizes and Trophies

Prizes, trophies and awards shall be as advised to each Competitor.

#### S11.2 Series Pointscore

Points shall be awarded to drivers for each race in each round of the Series as follows:

(a) Outright - points shall be awarded to each driver on their outright finishing position

Finishing		Points	
Position	Race 1	Race 2	Race 3
1 <sup>st</sup>	30	45	60
2 <sup>nd</sup>	28	42	56
3 <sup>rd</sup>	26	39	52
4 <sup>th</sup>	24	36	48
5 <sup>th</sup>	22	33	44
6 <sup>th</sup>	20	30	40
7 <sup>th</sup>	18	27	36
8 <sup>th</sup>	16	24	32
9 <sup>th</sup>	14	21	28
10 <sup>th</sup>	12	18	24
11 <sup>th</sup>	10	15	20
12 <sup>th</sup>	8	12	16
13 <sup>th</sup>	6	9	12
14 <sup>th</sup>	4	6	8
15 <sup>th</sup> and below	2	3	4

- (b) Points shall only be awarded to drivers classified as finishers in the final results of each race
- (c) Any race which is stopped, and not restarted, and during which less than 50% of the race distance has been completed by the leader shall be deemed a non-race in respect of Series points and no points shall be awarded.
- (d) Any race which is stopped, and not restarted, during which 50% 75% of the race distance has been completed by the leader shall be deemed to have been completed in respect of Series points but only 50% Series points shall be awarded.
- (e) Any race which is stopped during which 75% or more of the race distance has been completed by the leader shall be deemed to have finished and full Series points shall be awarded.
- (f) The results for each round of the Series shall be determined by the number of points scored by each driver at that round
- (g) In the event of a tie at the end of any round of the Series, the final positions for that round shall be determined by comparing the results of each of the tied drivers in the final race of that round. The higher place in the round results shall be awarded to the driver with the higher finishing position in the final race.
- (h) The driver gaining the highest outright points total over the five (5) rounds shall be declared the winner of the Series.
- (j) In the event of a tie at the end of the Series, final positions shall be determined by comparing the race results achieved by each tied driver, with the driver with the highest number of first places being awarded the higher Series position. If at this stage a tie still exists, it shall be resolved by comparing the number of second, third or fourth places (and so on) achieved by each tied driver until each position has been determined.

# S12 EVENT OPERATIONS

#### S12.1 Series Registration and Entry

The Series shall operate under the Sports Sedan Series Registration and Entry Process as determined by the Category Administrator.

#### S12.2 Entry Options

There is one entry option: (i)

Series Entry

Details of entry conditions and entry fees are available from the Category Administrator.

#### S12.3 Driver Briefings

Each Driver must attend the compulsory Drivers' briefing. The time and location of this briefing shall be detailed in the Supplementary or Further Regulations for the meeting. The attendance sheet must be signed by the Driver in attendance. Other compulsory briefings may be convened as required and shall be advised to each Competitor accordingly.

#### S12.4 Impound/Parc Ferme

- (a) Each automobile, including those remaining in pit lane, must proceed directly to the designated impound/Parc Ferme area via the most direct route (or as directed by Race Officials) at the conclusion of qualifying, without returning to pit or paddock areas and without interference from any third party (other than an Official of the Meeting).
- (b) Each automobile completing each race must proceed directly to the designated impound/Parc Ferme area (or as directed by Race Officials) at the conclusion of the race, without returning to pit or paddock areas and without interference from any third party (other than an Official of the Meeting).
- (c) Automobiles may not be removed from impound/Parc Ferme except with the express permission of the TC or the Chief Scrutineer.
- (d) Each Competitor must appoint a Car Controller who will be solely responsible for the stopping of, and the safe release of the automobile at all times whilst the automobile is in pit lane.

#### S12.5 Qualifying

During qualifying, automobiles may not return to the paddock area without the express permission of the TC or the Chief Scrutineer. If an automobile exits pit lane to the paddock during qualifying it shall not be permitted to re-join that session and shall be excluded from the results of the qualifying session.

#### S12.6 Pit Lane

Each Pit Crew member is required to sign a Pit Lane Indemnity Form prior to the first track session and to display identification as and if required by the meeting organiser.

#### S12.7 Removal of Automobiles from the Circuit

Following the commencement of the first qualifying session, it is not permitted to remove any automobile from the circuit prior to the completion of the meeting without the prior express written approval of the TC or the Chief Scrutineer.

#### S12.9 Automatic Timing – Data 1 Transmitter

- (a) Meeting organisers utilise an automatic timing system that requires all cars to be fitted with a Dorian Data 1 transmitter, and it is the responsibility of each competitor to obtain and maintain the transmitter in working order.
- (b) At all times when a car is on the circuit at a meeting (inclusive of private practice sessions), it must have the correct fully charged timing transmitter operating.

# S13 TYRES

The Series tyre supplier is Gary's Motorsport Tyres. Contact details are: Address – Unit 3/13 Penny PI. Arndell Park NSW 2148

Address – Unit 3/13 Penny PI. Arndell Park NSW 2148 Phone – 02 9676 8655 Email – <u>info@garysmotorsporttyres.com.au</u>

#### S13.1 Dry Weather Tyres (slicks):

From the commencement of Qualifying session 1, if slick tyres are being used, each automobile that is eligible for the Series must only be fitted with the following slick tyres supplied by the series tyre supplier and marked by the series Technical Commissioner or his nominee. No competing car will be allowed on track in any qualifying or race unless it is fitted with the marked tyres for that event.

Rim Diameter	Tyre Brand construction / compound	Tyre Size
18 inch	Hankook F200 / C52	300/660/18 (Front)
	Hankook F200 / C52	320/710/18 (Rear)
17 inch or less	Dunlop SS12M	Any size sourced from series tyre supplier.

- (a) A maximum of four (4) new or used (previously marked or unmarked) dry tyres (must be two (2) front & two (2) rear tyres) shall be marked for each automobile for each round of the Series.
- (b) In addition to S13.1 (a), the following tyres shall be marked for each automobile for each round of the Series:

A maximum of four (4) used dry tyres (must be two (2) front & two (2) rear tyres) previously marked for use in the series or;

A maximum of two (2) unmarked used dry tyres (must be one (1) front and one (1) rear tyre).

#### (c) Special Note:

At rounds one and two of this series a maximum of four (4) (must be two (2) front and two (2) rear tyres) used unmarked Hankook slick tyres may be presented in addition to S13.1 (a) as an alternative to S13.1 (b).

#### S13.2 Wet or damp weather tyres (treaded):

From the commencement of Qualifying session 1, if treaded tyres are being used, each automobile that is eligible for the Series may be fitted with the following treaded tyres supplied by the series tyre supplier and marked by the series Technical Commissioner or his nominee. No competing car will be allowed on track in any qualifying or race unless it is fitted with the marked tyres for that event. Wet Hankook tyres are not mandatory as other branded wet tyres only may be used.

Rim Diameter	Tyre Brand construction / compound	Tyre Size
18 inch	Hankook Z207 / WET	300/660/18 (Front)
	Hankook F200 / WET	320/710/18 (Rear)
17 inch or less	Dunlop SS12M	Any size sourced from series tyre supplier.

Special Note:

One set of existing (any brand) treaded tyres per car may be presented for marking and then following that only treaded tyres in the table above supplied by the series tyre supplier may be presented for marking. [This is to allow teams to use up one set of existing treaded tyre supply]

Penalty for non- compliance to the tyre rules in S13 is exclusion from the race meeting and forfeit all points for the race meeting.

All National Series Entrants must run the control Hankook or Dunlop tyre (unless entered as a NSW State Series Entrant or if Hankook or Dunlop tyre sizes for your car are not available from Gary's Motorsport Tyres).

# S13.4 Tyre Marking

- (a) Within one (1) hour from the completion of the final practice session at each round of the Series, each competitor must present each tyre to the TC or the Chief Scrutineer (or their nominee) for marking at the front of their respective garage/paddock bay. The outer wall of the tyre should remain natural prior to marking (ie. no tyre shine).
- (b) Each Competitor is responsible for ensuring that each tyre is marked or re-marked as appropriate. If tyre markings have been removed or are not visible when fitted to the automobile then they are deemed to be unmarked. If the tyres are not marked for any reason or the markings become faded or un-readable the Competitor must notify the TC or the Chief Scrutineer immediately and re-present the tyres for marking. If tyres are turned on the rim they should be represented for remarking on the visible outer wall.
- (c) Replacement tyres that are not from the tyres marked for the particular round of the Series are not permitted.
- (d) The use of any tyre heating, heat retention devices or chemical treatments to tyres is prohibited.

# S14 MINIMUM RACING WEIGHT and ENGINE REV LIMITS

- a) Each automobile must comply with the following minimum racing weights and engine rev limits at all times during each round of the Series.
- b) Each car must be fitted with an effective rev limiter and that rev limiter must be set at or below the applicable limit for the class of car as per the following schedule.
- c) At the request of the technical commissioner or CAMS scrutineer the rev limiter must be displayed to the technical commissioner or CAMS scrutineer along with any data logging or RPM supplied via the ECU. Penalty for non-compliance is exclusion from the race meeting and forfeit all points for the race meeting.

Class	Engine Capacity (cc)	Minimum Racina Weiaht (ka)	Maximum Engine Revs (rpm)
SS	0-3500	As detailed in the CAMS Manual of Motor Sport for Group 3D Sports Sedans	8500
	3501-5099		8200
	5100-6000		7800
ТА	0-5100	1175	8200
	5101-6000	1200	8000

**Please note:** Class TA cars with less than 5 forward speed gears may add an additional 200 RPM to the above maximum RPM

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Page **12** of **18** 

# 2017 National Sports Sedan Series Technical Regulations Class TA only

# T1 PREAMBLE

The requirements of these Technical Regulations only apply to each automobile competing in Class TA of the 2017 Sports Sedan Series (Series). Each automobile may be modified only to the extent specifically permitted under these regulations.

Each automobile competing in Class SS of the Series must comply with the provisions of the CAMS Manual of Motor Sport – Race – 3<sup>rd</sup> Category: Touring Cars – Group 3D: Sports Sedans.

It is the intent of these Technical Regulations to allow construction or modification useful and necessary in the preparation of an extremely high performance road racing automobile.

In addition to these Technical Regulations, each automobile must conform to the General Requirements of Automobiles in the CAMS Manual of Motor Sport.

Changes may be made to these Technical Regulations at any time, subject to the prior approval of CAMS, in the interests of safety, fairness and cost containment and to maintain parity.

# T2 ELIGIBILITY

Each automobile allocated to Class TA of the Series must comply with the provisions of these Technical Regulations to be eligible for the Series

# T3 CHASSIS

- (a) Each automobile shall be of steel tube space frame construction with adequate strength to withstand the forces placed upon it from competition.
- (b) The wheelbase at the hub centerline shall be 2590mm +/- 20mm.
- (c) The maximum track shall be 2040mm.

# T4 SAFETY CAGE

Each automobile must be fitted with a Safety Cage that complies with the requirements of Schedule J of the CAMS Manual of Motor Sport and the requirements specified in 3<sup>rd</sup> Category: Touring Cars - Group 3D: Sports Sedans.

The Safety Cage Structure shall incorporate the following additional elements for Side Impact Protection:

A minimum of three (3) side impact protection tubes on the driver's side plus a minimum of one (1) tube on the passenger side. On the driver's side each tube is to run fore/aft near horizontal and be joined to one another by at least two (2) near vertical tubes.

# T5 BODYWORK

- (a) Each automobile may be updated and/or changed from marque to marque by exchanging the approved bodywork over a common wheelbase and track measurement chassis.
- (b) Each automobile shall be listed according to the bodywork's intended make and model designation. Any eligible engine may be used in any car designation.
- (c) Only SCCA Trans Am approved bodywork shapes post 1990 shall be permitted. Trans Am bodywork shall be in a configuration that is approved for past or present SCCA Trans Am competition. The bodywork may be constructed from composite materials such as Fibreglass, Kevlar and Carbon Fibre. The method of bodywork attachment is free.
- (d) The maximum overall width of each automobile shall not exceed 2050mm.
- (e) Bodywork that was manufactured without any hood louvres may have up to two (2) hood louvres added. These louvres must be located on the hood/front fender between the radiator and the rearward edge of the hood. The maximum size of these louvres is 510mm x 255mm with a minimum of five (5) slots.
- (f) The bonnet may be modified to provide clearance to the engine air intake air-box, provided that such alteration does not confuse the identity of the car. The maximum height of this modification is 50mm.
- (g) Polycarbonate windshields are permitted. Polycarbonate windshields must have a minimum of one (1) inner support to prevent the windshield from collapsing inward. The rear quarter (side) and rear windows may be made of clear, transparent polycarbonate material.
- (h) Rear view mirrors providing visibility to the rear of both sides of the automobile must be fitted.
- (i) Fresh-air ducts to the driver may be added to the A-pillar area. They shall be distinctly separate parts from the bodywork. One only genesis technologies roof louvre vent (part number GA3125) is allowed for the express purpose of venting the driver's compartment.
- (j) The area in the rear bodywork that was intended to be covered by a number plate may be removed and utilised as a vent to exit air from inside the rear bodywork.
- (k) Each door may contain one (1) hole or slot to accommodate exhaust outlet/s. Any such opening in the door(s) shall be in the lower half of the door height and within 300mm of the rear wheel arch opening.
- (I) Air may be ducted to the carburettor/s intakes or fuel injection intakes provided that the ducting is completely contained within the engine compartment and that the air to be ducted is supplied through normal openings in the bodywork. Air may be ducted to a sealed air-box through an

opening near the back of the bonnet, rectangular in shape, maximum width of 500mm and maximum length of 100mm.

(m) Additional openings are permitted for the purpose of ducting air to the brakes, radiator, air-box and/or oil cooler(s). These openings may be placed in the lower half of the nose section panel.

# T6 SPOILERS/WINGS

- (a) A flat front air splitter is permitted and may extend up to 50mm in front of the approved Trans Am bodywork. A front "under-tray" is permitted and may incorporate a low pressure air diffuser but extend no further rearward than the centreline of the front hubs.
- (b) If a rear wing is used, it shall comply with the single element wing specification in the CAMS Manual of Motor Sport – Race – 3<sup>rd</sup> Category: Touring Cars - Group 3D: Sports Sedans. The maximum width of the entire wing assembly including endplates shall be 1830mm. The cord length shall be no greater than 275mm. Each wing endplate must be mounted parallel to the automobile centerline, and must be perpendicular to the ground. Each wing endplate must be parallel to the centerline of the automobile with no curvature or openings.
- (c) A maximum 15mm Gurney tab is permitted at the trailing edge of the wing element. The tab must be mounted 90 degrees to the upper wing surface. No air may pass between the tab and the wing.
- (d) The entire wing assembly must be mounted below the peak of the roof (measured at the highest point of the roof). The trailing edge of the wing cord must be located within the following area:

Forward - A maximum of 150mm forward of the rearmost bodywork measured at the automobile centerline.

Aft - A maximum of 50mm rearward of the rearmost bodywork at the automobile centerline.

Two wing mounting posts must be used.

- (e) Cockpit operable wing adjustment or any device that allows wing adjustment or movement whilst the vehicle is in motion is not permitted.
- (f) Vertical vanes may be fitted under the Trans-am homologated rear floor / bumper panel in order to develop a rear diffuser effect. The vanes fitted must be no wider than the inside of the rear tyres inflated to 1.7 bar / 25 PSI, no further forward than the rear axle centreline and no lower than the chassis ride height at the rear axle centreline. These vanes must not protrude rearward of the rearmost point of the rear bumper bar.

# T7 WHEELS AND TYRES

- (a) Each automobile must have four (4) wheels.
  - (i) The maximum wheel rim diameter is 18 inches and the minimum diameter is 16 inches.
  - (ii) The maximum width of any complete wheel assembly is 370mm with at least 180kpa pressure in the tyre.
  - (iii) Each wheel shall be made of steel, aluminium, magnesium, or a combination thereof.

(b) Each automobile must only be fitted with the make, size and compound of tyres specified in the 2015 Sports Sedan Series Sporting Regulations at all times at each round of the Series.

# T8 WEIGHT

- (a) Each automobile must comply with the minimum Racing Weight (including driver with all apparel and remaining fluids in the car) at all times at each round of the Series as specified in the 2015 Sports Sedan Series Sporting Regulations
- (b) The minimum weight permitted (with driver seated in the driving seat in the normal driving position) over the front axle is 49% of the total race weight of each individual car.

# T9 ENGINE

- (a) Only pushrod valve actuation V8 engines up to 6000cc are permitted.
- (b) The following engine blocks are permitted:

All factory engine blocks manufactured by:

- General Motors Chevrolet, Ford & Dodge.
- All approved Nascar engine blocks prior to; Chev R07, Ford FR9 & Dodge R6.
- All aftermarket engine blocks manufactured by World Industries, Dart & Ford SVO.

All aluminium engine blocks are prohibited.

- (c) Each engine is to be naturally aspirated and the fuel fed via a carburettor/s or via a fuel injection system. All inducted air shall pass through the carburettor/s or fuel injection throttle venturis. Air filters, velocity stacks, and or air boxes are free.
- (d) The maximum engine revolutions per minute (RPM) permitted at all times during each round of the Series shall be as specified in the 2015 Sports Sedan Series Sporting Regulations
- (e) The rearmost point of the engine block must be located forward of the most forward point of the front firewall.

Engine mountings are free.

- (f) Oil pumps are free provided that they are mechanically driven by the engine.
- (g) Water pumps are free provided that they are mechanically driven by the engine.
- (h) Only driver operated electrical starter is permitted. The use of any ignition system (except magneto ignition) is permitted, provided the number of spark plugs remains the same as the number of engine pistons. The remaining components of the engine electrical system are free.
- (i) The components of the exhaust system are free.

The exhaust outlet/s must exit the bodywork below the centerline of the door height and within 300mm of the rear wheel arch opening.

(j) Any water and oil radiator or heat exchanger is permitted, provided that there are no changes to the exterior bodywork to accommodate its use. They shall not be located in the driver/ passenger compartment. Air may be ducted to said coolers only through normal openings in the approved bodywork. Air ducts or other openings shall not be added to body panels or windows.

Air may be ducted to coolers from free air under the car, provided that such under car ducting does not create aerodynamic down-force.

# T10 DRIVETRAIN

- (a) Only two wheel drive via the rear wheels is permitted.
- (b) Only a single speed live rear axle is permitted, however, it may be modified to accommodate camber and toe adjustments.

"Quick change" drop gears are permitted.

Final drive units which permit ratio changes while the car is in motion are prohibited.

- (c) The design of the transmission is free, save for the following:
  - (i). The transmission box front mounting surface must be located within 410mm of the rear of the engine block.
  - (ii). The clutch must be controlled exclusively by the driver by either mechanical or hydraulic actuation. The use of any electronic clutch actuation systems is not permitted.
  - (iii). The gears must be selected by the driver exclusively via a mechanical linkage.
  - (iv). The use of any electronic, hydraulic or pneumatic gear selection device or assistance is not permitted.
  - (v). A gear lever-mounted switch, which must only provide a gear shift cut signal to the ECU, may be fitted.
  - (vi). An operable reverse gear driven by the engine must be fitted.

The maximum number of forward gears shall be six.

(d) A minimum of one (1) steel 360 degree "loops" shall be installed of sufficient strength to prevent the driveshaft(s) from entering the driver's compartment or the front of the shaft contacting the ground in the event of shaft and/or U-joint failure.

# T11 SUSPENSION

- (a) The minimum ride height of any part of the car shall be 40mm.
- (b) Suspension components are free provided that they are constructed from steel or aluminium.
- (c) Only coil springs may be used for springing the car. A maximum of one shock absorber is permitted per wheel.

- (d) The front suspension is to be a double A-arm type suspension of equal or unequal length arms.
- (e) The rear axle is to be a closed tube beam, live axle suspension.
- (f) The front wheels only shall be steered by the driver. The type of steering is free. It is recommended that a collapsible steering column is used.

# T12 BRAKES

- (a) Each automobile shall be equipped with a dual braking system operated by a single control. In the case of leakage or failure to any point in the system, effective braking power shall be maintained to at least two (2) wheels. The use of any dual master cylinder and/or pressure equalizing device is permitted. Servo assist braking systems are not permitted.
- (b) Brake cooling air ducts may be fitted, provided they extend only in a forward direction, and that no changes are made in the bodywork for their installation save for two (2) openings in the front bumper area to accommodate up to an area equal to 5 inches diameter for each opening.
- (c) Only brake discs manufactured from ferrous material may be used. Only one brake disc per wheel is permitted. Brake discs are to be mounted outboard of the rear axle housing and front uprights.
- (d) Brake calipers are free save that only one brake caliper per wheel with a maximum of 6 pistons per caliper is permitted.
- (e) Water cooled calipers are not permitted.

(f) Air may be ducted to the rear brakes from free air under the car, provided that such under car ducting does not create aerodynamic down-force.