



AUSTRALIAN PULSAR RACING ASSOCIATION LIMITED

SPECIFICATIONS OF AUTOMOBILES

ALL VEHICLES IN RACES AND OTHER SPEED EVENTS MUST COMPLY WITH THE GENERAL REQUIREMENTS OF AUTOMOBILES (SEE "GENERAL REQUIREMENTS FOR CARS AND DRIVERS" IN THE CAMS MANUAL OF MOTOR SPORT).

Australian Pulsar Racing Association Touring Cars Group 3E – APRA State Series Regulations 2018 **Version 2.5**

1. PHILOSOPHY:

- (i) The intent of the following regulations is to enable competitors to adequately prepare a production N14 or N15 Nissan Pulsar for competition. The APRA Australian Pulsar Racing Association is intended to be a circuit racing group for N14 and N15 Nissan Pulsars that are controlled parameters installed to promote and easily manage parity for performance and other componentry. The APRA Australian Pulsar Racing Association is aimed at Club level competitors as an entry level motorsport class operated under CAMS/AASA/RACER guidelines and requirements.
- (ii) Our philosophy and aim is to develop the most cost effective grass roots motorsport series in Australia. Modifications permitted to the vehicle/s are outlined within these regulations; ANY MODIFICATION NOT OUTLINED WITHIN THESE REGULATIONS IS DEEMED ILLEGAL AND IS NOT PERMITTED.

1.1 DEFINITION:

- (i) The present regulations apply to Australian Delivered N14 & N15 Nissan Pulsars.

2. ELIGIBILITY:

- (i) To be eligible for the APRA Australian Pulsar Racing Association series, the automobile must be either N14 or N15 model Nissan Pulsar in either Sedan or Hatch variation and of Australian delivery. The class is designed around the 2.0 (SR20DE) & 1.6 (GA16DE) models. (NOTE: All GA16DE Regs are mirrored to match the SR20DE).

2.1 RACING WEIGHT: SERIES CONTROL ITEM:

- (i) Each competitor must comply with the APRA Racing Weight. The National APRA Racing Weight is a minimum of 1100kg with Driver and Driver Safety Equipment at race end. (Endurance races included). Competitors may be requested at any time to participate in vehicle/driver weight check.

2.2 NON-GENUINE PARTS:

- (i) Freedom of source of supply is granted for all fasteners, belts, gaskets, seals, flexible hoses, liquid carrying pipes, mechanical cables, bearings, clamps, spark plugs and spark plug leads, filters, batteries and battery cables, globes and LEDs, fuses and electro mechanical relays provided no additional modifications are made to facilitate the fitment of the replacement part.

All moving and fixed glass must remain OEM.

3. CHASSIS/MONOCOQUE

3.1 SAFETY CAGE / ROLL BAR:

- (i) Each vehicle must be fitted with a Type 3 full safety cage. Each safety cage must be in compliance with Schedule J (refer "General Requirements for Cars and Drivers" in the CAMS Manual of Motor Sport). Both Weld in and Bolt in cages are compliant.

4. ENGINE

4.1 GENERAL:

- (i) Unless specified otherwise below, tolerances for machining, finishing and weighing of engine components will be in accordance with 'Definitions – Technical, Measuring Tolerances' in "General Requirements for Cars and Drivers". All plastic shrouding located in the engine bay, the sole purpose of which is aesthetic, may be removed. Soundproofing material and trim fitted to the underside of the bonnet that is not visible from the outside may be removed.

4.2 MOUNTS:

- (i) The dampening material of the engine mounts is free provided the location, position and orientation of the engine remains standard.

4.3 CYLINDER BLOCK:

- (i) It is permitted to increase the cylinder block bore diameter up to a maximum of 1.016mm over the standard bore size. It is permitted to re-sleeve the cylinder bores of a sleeved block, or to fit a sleeve to a unitary block, provided that in each case the material used to sleeve the cylinder bore is either the same as the standard bore or is cast iron. Milling the block free as long as the minimum piston to head clearance is 0.889mm.

4.4 CYLINDER HEAD/S:

- (i) It is permitted to remove material from the head gasket contact face of the cylinder head provided the following limits are observed:
 - Minimum head height 136.6mm (refer to appendix A.7 for measuring method)
 - Minimum piston to head clearance 0.889mm (per 4.3)
- (ii) It is permitted to re-grind valve seats providing that the grinding process does not remove any of the cylinder head casting.
- (iii) Method of valve timing and operation of all valve events shall be as standard for the models N14 and N15 Australian delivered cars. Nissan OEM specifications reproduced in appendix A (A.4 through A.6) must be adhered to.
- (iv) Only cylinder head castings of the same type as OEM for the models from N14 and N15 Nissan Pulsars from Pulsar Q through to Pulsar SSS Australian delivered variations.
- (v) Head gaskets must remain OEM thickness.
- (vi) The hydraulic lifters must remain stock standard, they may not be replaced with solid lifters.

4.5 CRANKSHAFT:

- (i) The maximum amount of material permitted to be removed from any crankshaft journal diameter is 0.25mm.
- (ii) Crankshaft balancing is allowed, however overbalancing is not permitted.

4.6 CONNECTING RODS:

- (i) Each connecting rod of a reciprocating engine may be replaced provided the replacement is of a solid magnetic steel construction, the distance between the centre of the big end and small end tunnels are the same as the standard connecting rod (136.30mm) and the weight of the connecting rod is within 2.0% of the standard connecting rod. Note: the connecting rod weight is inclusive of the small end bush, big end bearings and bolts and nuts.

4.7 PISTONS:

- (i) Pistons may be replaced provided the replacement piston has an identically shaped crown to that of the standard piston, the distance between the gudgeon pin centre line and the highest point of the piston crown remains the same as the standard piston and the weight of the piston is within 2.0% of the standard piston. No part of the replacement piston is permitted to be coated unless supplied as standard equipment. Note: the piston weight is inclusive of gudgeon pin, locks and piston rings.

4.8 PISTON RINGS:

- (i) Piston rings maybe replaced provided the number of compression and oil rings remain the same as the standard piston, the number of components per ring remains the same as the standard piston rings (ie, single piece compression rings may not be replaced by two piece 'gapless' rings) and the face of each piston ring (the part of the ring which is in contact with cylinder wall) must not be less than that of the standard ring.

4.9 CAMSHAFT/S:

- (i) The camshaft must remain a standard/original OEM component from N14 and N15 Nissan Pulsars from Pulsar Q through to Pulsar SSS Australian delivered variations (per appendix A – A.4 & A.5). The camshaft OR its timing in relation to the crankshaft may not be modified in anyway.

4.10 LUBRICATION:

- (i) The removable portion of the oil sump is free to replace provided any additional material added to the oil sump is the same as that of the standard oil sump and no additional modifications are made to facilitate the fitment. It is permitted to modify the oil pickup and to add an oil separator tank to the crankcase breather line.
- (ii) The use of Oil Accumulator and or Sump Baffle is permitted.

4.11 THROTTLE:

- (i) Throttle body, fuel rail, injectors and fuel regulator as well as all supporting components must be standard OEM components and are not permitted to be modified. The EGR valve can be removed. It is permitted to modify the air intake upstream of the throttle body but the stock airflow meter must be used. The complete intake and air filter assembly must be located within the engine compartment. No additions or holes may be made to the body structure to facilitate this modification.

4.12 PULLEYS:

- (i) Each pulley that drives engine ancillaries (ie, water pump, alternator, etc) is free. Each associated belt may be replaced provided it respects the standard type and width.

4.13 ELECTRONIC ENGINE CONTROL UNIT (ECU):

- (i) ECU must remain standard and unmodified. It is not permitted to re-flash or adapt any additional “piggyback” style ECU module. The ECU must be in standard OEM mounting location.
- (ii) **The ECU is to be from Australian delivered vehicles only. No imported ECU is permitted for use.**
- (iii) The APRA Competition Manager may from time to time or at his/her discretion issue any competitor with a standard ECU in the event The APRA Competition Manager suspect a competitor may be using an illegal ECU. Refusal by the competitor will automatically exclude them from the round. The APRA reserves the right to conduct an ECU lottery during each round.
- (iv) The fuel cut system must not be disabled.

4.14 COOLING SYSTEM:

- (i) Radiators may be replaced provided the width, height and position of the replacement radiator is the same as the largest variation from N14/N15 Pulsar OEM radiator. If replacement radiator is installed, no removal or modification other than that of the plastic fan shroud is permitted.
- (ii) Water pumps are free. The thermostat, its operation and method of control is free as is the method of operation of the standard engine cooling fan/s and the manner in which the radiator pressure is maintained. It is permitted to fit a protective screen mounted in front of the radiator provided no additional modifications are made to facilitate the fitment.
- (iii) It is permitted to fit an engine, transmission, final drive and power steering oil cooler provided that the sole purpose of the cooler is to reduce the oil temperature and the direction of the oil within the engine is unchanged.
- (iv) All coolers and associated components must remain inside the external bodywork of the automobile. The only modification permitted to facilitate the fitment of coolers and associated components is the relocation of the oil filter and the drilling of holes for mounting purposes.

4.15 EXHAUST: SERIES CONTROL ITEM:

- (i) The exhaust system is free to change downstream of the standard OEM N14 and N15 Nissan Pulsars from Pulsar Q through to Pulsar SSS Australian delivered variation headers. No additional modifications to body or any other part of the vehicle are permitted to facilitate the installation of replacement non OEM exhaust system components. Exhaust can exit anywhere behind the driver’s door provided it meets the 95db noise requirements.
- (ii) The use of Turbo Exhaust Centre (Part No.EX85) aftermarket headers are permitted.
(Contact details are available section 18.(iii) of these regulations)

4.16 AIR CONDITIONING COMPONENTS:

- (i) Any components solely associated with the air conditioning system of the automobile may be removed from the engine compartment.

5. TRANSMISSION

5.1 MOUNTS:

- (i) The dampening material of the transmission mounts is free to change provided the location, position and orientation remains standard.

5.2 GEARBOX:

- (i) Transmission must come from respective Australia delivered N14 or N15 Nissan Pulsars, and have five forward gears and one reverse gear, all components of the transmission must be of OEM manufacture origin and ratios of the Australian delivered vehicles.

OEM Ratios are: 1st Gear 3.063:1 - 2nd Gear 1.826:1 - 3rd Gear 1.2861 - 4th Gear 0.975:1

5th Gear 0.756:1 - Rev Gear 3.417:1 - Final Drive Ratio 4.167:1

- (ii) Other than the Differential as per rule 5.5 no modifications are permitted to any function or component of the transmission or its operation. Please note it is the responsibility of the entrant to ensure the transmission they are using is APRA compliant.
- (iii) Gear Shift Bushes and Gear Shift Linkage Rods and their immediate family are free. It is also permitted to fit an extension to the transmission breather using a short length of hose. (Anything outside of the gearbox relating to shifting mechanisms are free).

NOTE: Some transmissions from imported vehicles are not compliant in their gear ratios and final drive ratio.

5.3 FLYWHEEL:

- (i) The flywheel must be OEM. The weight of the flywheel must be within 2% of standard weight.

5.4 CLUTCH:

- (i) The clutch driven plate/s is/are free provided the number of plates remains standard and the plate/s are not made from a carbon material. The pressure plate may be replaced by another assembly, the primary mechanism of which must remain mechanically identical to the standard assembly.

5.5 DIFFERENTIAL AND FINAL DRIVE ASSEMBLY:

- (i) The differential is free. The use of any form of Limited Slip Differential, Spool or Welded Centre is permitted. NOTE this rule is for the differential only, all other components of the transmission must adhere to rules 5.2.

PLEASE NOTE: it is the responsibility of the entrant to ensure the transmission they are using is compliant to rule 5.2 (Ratios). Some transmissions from imported vehicles come standard with Viscous Limited Slip Centres which complies with rule 5.5 but may not be compliant in their gear ratios and final drive ratio.

6. SUSPENSION

6.1 GENERAL:

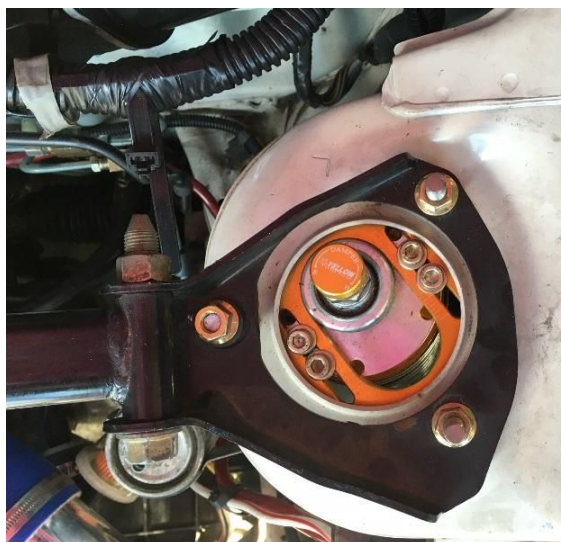
- (i) The front and rear suspension and its suspension pivot points must remain in the original and importantly unmodified location. Using components from Australian Delivered eligible vehicles is permitted (placing N14 components in an N15 and Vice Versa provided they are from the Australian Delivery version – N14 YellowSpeed springs must not be swapped between N14 & N15).

6.2 COIL SPRINGS:

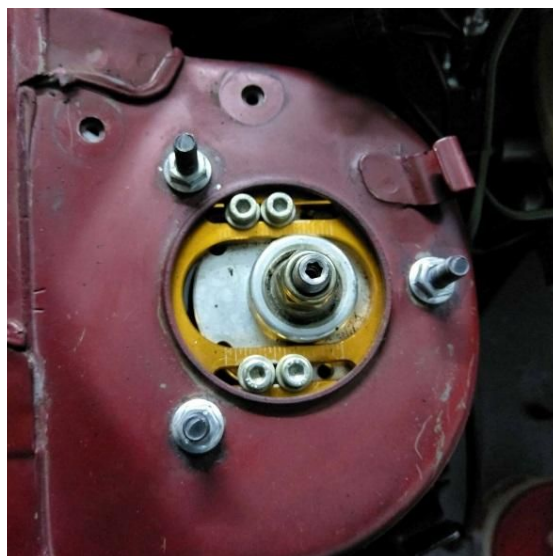
- (i) Only the springs supplied with the Yellow Speed Control Shocks are permitted. Changing the supplied springs from front to back is permitted, the car must have 2 front springs and 2 rear springs as supplied, it is not permitted to use rear N15 springs on an N14, it is not permitted to use N14 rear springs on an N15.

6.3 SHOCK ABSORBERS: SERIES CONTROL ITEM:

- (i) Yellow Speed Coilover suspension (N14 Part No. YS01-NS-DPS-016-10) & (N15 Part No. YS01-NS-DPS-017-11) APRA Tagged Control Item. These items must be purchased directly from the Australian Importer of Yellow Speed – MX5 Mania Sydney - 02 9482 3238. Your APRA membership number may be recorded and you will receive an APRA Tag.
- (ii) The installation of Yellow Speed Dynamic Pro Sport Coilovers are the only form of suspension modification permitted to be installed, no other modifications are permitted. These shocks are sold as a direct replacement for the OEM Nissan Pulsar Shocks and are to be installed as such. This will result in the three studs at the top of the coilover assembly passing through all three holes in the chassis, without modification to the coilover or the chassis. The Yellow Speed Pro Sport coilovers only provide camber adjustment (in line with the drive shafts).



These Shocks are fitted incorrectly. (Illegal)



These Shocks are fitted correctly. (Legal)

- (iii) It is not permitted to re-valve or alter the Yellow Speed Dynamic Pro Sport Coilover.
- (iv) Strut braces are free but can only connect to the strut towers, no additional bracing allowed.

6.4 SUSPENSION BUSHES:

- (i) It is permitted to install Castor Bushes up to +1degree. Suspension Bushes are free providing they remain of an elastomeric construction.
- (ii) In effort to promote parity between both N14 and N15 model Pulsar's it is permitted to modify the N15 rear beam axle to achieve camber/toe wheel alignment only and shall be no more than is obtainable on N14 models.
No other modifications to any other OEM component, associated with suspension or other that will provide additional modifications to suspension or wheel/tyre alignment or location.

6.5 RIDE HEIGHT:

- (i) Ride Height is free to change.

6.6 STEERING:

- (i) It is permitted to add components to the steering tie-rods in order to continue to provide adjustment of the toe angle. The locking system of the anti-theft steering lock may be rendered inoperative. Power steering pumps, power steering racks and their immediate components are free.

6.6 SWAY BARS:

- (i) **Front Sway bars** - are free however must retain the original mounting points. Additional reinforcement of Sway bar mounts permitted. **Sway bar end links are free.**
- (ii) **Rear Sway bars** - in effort to promote parity between both N14 and N15 models, rear sway bars are free. Additional reinforcement of sway bar mounts is permitted on N14 models. Sway bar end links are free.
- (iv) Sway bar bushes are free providing they remain of an elastomeric construction.
- (v) The use of cockpit adjustable swaybars is prohibited

7. WHEELS AND TYRES

7.1 WHEELS:

- (i) Wheels can only be 15inch x 6.5inch or 15inch x 7inch. No other wheel size is permitted.
- (ii) Wheels/Tyres must not protrude past the guard.
- (iii) Wheel attachment studs are free provided the number of studs remain the same, the diameter of the replacement stud is equal to or greater than the standard studs and no additional modifications are made to facilitate the fitment of the replacement studs.
- (iv) Wheel attachment bolts may be replaced with studs and nuts provided that the number of attachment points remains standard and the diameter of the thread is not less than that of the replaced bolt. Any device, system, procedure, construction or design the purpose and/or effect of which allows the wheel nuts or bolts to be retained within the wheel during the process of the wheel being fitted to or removed from the car is forbidden. The design of wheel nuts is free provided that they are of ferrous material and the outer end is not enclosed.
- (v) Wheel spacers may be used provided they are of a single piece construction. They must be fitted with extended wheel studs and the wheel must not protrude past the guard when measured at the top of the wheel.



7.2 TYRES: SERIES CONTROL ITEM:

- (i) Only a tyre listed on the APRA Tyre List (TOYO PROXES R888R 195/50/15) is permitted to be used.
At no time may any tread wear indicator be exposed, or in the case of tyres that have dimpled tyre wear indicator, the tyre must not be worn below the indicator. With the exception of the shoulder of a tyre, in each area of a tyre where there is no tread wear indicator, the original tread pattern must be clearly visible.

8. BRAKES

- (i) Brake calipers and rotors from N15 SSS or N14 GTiR may be fitted.
- (ii) Brake pads are free but must be installed into caliper without modifying caliper in anyway.
- (iii) Brake rotors are free however must be of ferrous material and not exceed N15 "SSS" OEM diameter of 257mm and thickness of 26mm.
- (iv) It is permitted to install N15 Master Cylinder to N14 models. It is also permitted to remove the Factory ABS system from vehicles that came with it. Brake fluid pipes and hoses are free, braided brake hoses are encouraged.
- (v) It is permitted to fit bias control between the front and rear brakes. You are permitted to add a mechanism to allow for the adjustment of the front/rear brake bias from the cockpit. Note: The OEM Brake, Clutch and Accelerator Pedals must be retained as per rule 12.2.
- (vi) It is permitted to remove the brake master vac (brake booster) and refit the master cylinder on the firewall using a mount plate of free design. It is permitted to change the pivot ratio of brake pedal by drilling a new pivot point to the pedal.

9. FUEL SYSTEM

9.1 FUEL TANK:

- (i) Only OEM Fuel Tanks unmodified in the original OEM location will be permitted.

9.2 FUEL PUMP/S:

- (i) Free.

9.3 FUEL TYPE:

- (i) Only Pump Fuel is permitted, with a maximum ethanol content of 10% as detailed in Schedule G ("CAMs General Requirements for Cars and Drivers"). No other additives or substances may be added.

10. ELECTRICAL EQUIPMENT:

- (i) The use of data storage devices including multi-display dashes with the ability to store car data is permitted. All must run in line with the standard OEM ECU. All competing vehicles may be subject to an ECU Lottery at the discretion of the APRA management.

11. BODYWORK

11.1 JACKING:

- (i) The jacking points may be strengthened by the addition of metal plate/s, relocated and/or increased in number provided that each jacking point does not exceed a surface area of more than 150mm x 150mm and follow the contours of the original structure.

12. COCKPIT/DRIVER'S COMPARTMENT:

- (i) The driver's seat may be replaced by one that complies with the FIA 8855/99 standard. The seat may be made from carbon fibre or carbon/Kevlar® material. The driver must use a safety harness that complies with Schedule I ("CAMS General Requirements for Cars and Drivers").

12.1 STEERING WHEEL:

- (i) The steering wheel may be replaced by one which is of at least 300mm diameter. It is permitted to add a steering wheel boss, possibly incorporating a quick release mechanism, to enable the fitment of a permissible steering wheel. The steering column may be lowered by the addition of spacers/ longer bolts at the rear mounting points provided no other modifications are required.

12.2 CONTROLS:

- (i) All driving controls must retain the role laid down for them by the manufacturer. Footrests and heat protection panels may be added to the driver's footwell cavity. The OEM Pedals must be retained also location of the brake, clutch and accelerator pedals must remain in original position and of original operation.

12.3 INSTRUMENTS:

- (i) Instruments are free, but the original dash must remain. Any holes in the dash resulting from the removal of instruments must be neatly closed by the addition of a closing panel. Where possible, all replacement instruments must be mounted in the dash where the original instruments were situated. Where the original dash incorporates an integral console connecting to the transmission tunnel this panel must be retained. Where the console is attached to the dash via fasteners the console may be removed.
- (ii) To help maintain driving standards, the use of a forward facing camera is required. These cameras will be provided by the competitor. Driving standards will be monitored by the DSO (Driving Standard Observer) appointed by Australian Pulsar Racing Association Ltd for the meeting.

It is solely up to the competitor to maintain and provide their own footage when and if required. Failure to supply in-car footage in the result of an investigation deems the competitor at fault. **Please refer to Section 16.(iii) Penalty System for penalties.**

12.4 CARPET AND INTERIOR TRIM:

- (i) Floor carpet and associated "underfelt", roof lining and interior trim down to the lower edge of the windows, and consoles on the transmission tunnel must be removed. Original door trims may be retained or replaced with a rigid, moulded or flat panel. The replacement door trim must cover all openings and door skin/frame as achieved by the original trim. Internal door handles, opening levers and window winders may be replaced by one of free design situated in the same general location.

12.5 SEATS:

- (i) As per rule 12 (i), the driver's seat may be replaced with one in compliance with Schedule C (refer CAMS Manual "General Requirements for Cars and Drivers"). Original seat mountings may be replaced and/or other mountings added provided that they extend no further than 50mm from the plan view of the seat and associated seat belts are free. All other passenger seats can be removed

12.6 HEATER:

- (i) All components solely associated with the heating, air-conditioning and ventilation system are free. Any openings created by the removal of ducting, vents and controls from the dash must be closed by the addition of panels, which may be used to mount additional instruments or controls.

12.7 ACCESSORIES:

- (i) The radio, aerial, speakers and speaker mounts may be removed. Fog/driving lights which are separate from the main lighting system may be removed as may internal cockpit lights. Accessories which do not increase performance (eg, additional lamps, mirrors, etc) may be added. OEM side and internal rear-vision mirrors must be unmodified.

13. COMPETITION NUMBERS:

- (i) Each vehicle must have a number with contrasting background, only combinations of black on white or white on black are acceptable. (Two 300mm x 300mm panels will be supplied upon membership fee payment).
- (ii) The number must be located on each side of the vehicle and on the forward most part of the front door.
- (iii) Each vehicle must have a florescent yellow number on the upper left part of the front windscreen (below the APRA Series Windscreen Banner). You must also have a florescent yellow number on the upper right part of the rear window.
- (iv) Series race numbers will be issued on application of membership. It's up to the competitor to source these from a signwriter or Race Shop (e.g Revolution Racegear). 1 set of blank APRA Number Panels will be provided as part of Annual membership, additional number panels required during the year need to be paid for by the competitor.
- (v) Number 1, will be reserved for the current series champion, to be used at the competitor's discretion.

14. CATEGORY SPONSOR SIGNAGE:

- (i) Category Sponsor Signage must be displayed on all cars during the racing season. These areas are as follows: windscreen banner, rear window banner, race number panel, door panel sponsor and number plates front and rear. It is also a requirement to have four Toyo Tyres signage displayed. 1 set of category sponsor signage will be provided as part of Annual membership, additional stickers required during the year need to be paid for by the competitor.

15. VEHICLE COMPLIANCE:

- (i) In the interest of the club and fairness to all competitors. APRA officials may at times impound components from any vehicle for the purpose of independent testing. If any components are removed from a vehicle at the completion of a race meeting, these components will be temporarily replaced with a similar component supplied by APRA to allow the competitor to operate his/her vehicle for the purpose of removing the vehicle from the track.
- (ii) Any measurement tool and the method of measurement used by APRA or their nominee shall be considered to be the official measurement tool/method and shall not be the subject of any protest or appeal.
- (iii) APRA reserves the right to seal any part or component for future examination. Any out of pocket expenses relating to component sealing shall be discussed by the APRA Committee and the Competitor on a case by case basis. Seals may temporary or permanent . Temporary seals will be in place until such time that an inspection takes place for that part/component. Permanent seals will be in place after the part/component has been checked and passed for eligibility.
- (iv) If a competitor has a temporary seal applied to a component or part of their vehicle, and that component/part fails the test for eligibility this will be found to be in breach of the regulations, the penalty for that breach shall be retrospective and be applied from the round the seal was originally fitted.
- (v) Any competitor that refuses to have components checked or sealed for compliance purpose will be excluded from and take no further part in that event. The vehicle will not be granted entry to future APRA events until the components are fully inspected and passed by APRA officials.
- (v) If a previously installed seal, be that temporary or permanent is damaged, has been removed or appears to have been tampered with in any way, without prior approval by APRA management the Competitor of that vehicle shall be penalised in accordance with APRA Penalty System 16 (iii)

16. SERIES CHAMPIONSHIP POINTS SYSTEM:

(i) Points System

Series championship points are allocated to drivers based on the finishing order within each race:

Place	Points	Place	Points	Place	Points	Place	Points
1	100	11	60	21	40	31	20
2	90	12	58	22	38	32	18
3	85	13	56	23	36	33	16
4	80	14	54	24	34	34	14
5	77	15	52	25	32	35	12
6	74	16	50	26	30	36	10
7	71	17	48	27	28	37	8
8	68	18	46	28	26	38	6
9	65	19	44	29	24	39	4
10	62	20	42	30	22	40	2

Note: In case of grids in excess of 40 cars all further finishers beyond P40 shall receive one (1) point only.

Your Point Scorer is Paul Bartolo/Brad Connelly – apralimited@gmail.com

(ii) Protest System

APRA do not host race events, all racing incidents should be notified to the category DSO or the Clerk of the Course of the event in the first instance. The protest system is primarily for APRA compliance issues. Entrants and drivers (who must be a financial APRA member) may lodge a compliance protest with APRA.

(iii) Penalty System

Entrants and drivers (who must be a financial APRA member) may provide video footage to APRA for review, this may result in a series points penalty and/or driving standards notification to the driver responsible. The APRA DSO officer will review and take actions as appropriate. APRA penalties are in addition to and independent of any actions that may or may not be taken by the stewards of the event.

#	Infringement (for each & every occurrence)	Points Penalty
1	Crowding of overtaking drivers or pulling across the overtaken car before it's safe to do so	20 - 40
2	Dangerous driving and/or loss of control causing an accident.	20 - Race exclusion
3	Not giving another competitor reasonable racing room	20 - 60
4	Deliberate car to car contact	Meeting or Season exclusion
5	Rear end bumping putting the other competitor off the track or gaining an unfair advantage – Bump and Run	20 – Race exclusion
6	Deliberate weaving or blocking	20 – 60
7	Changing line (prior to, during or exiting) a corner which causes contact with another car	20 - 40
8	Late and/or dangerous braking --- Diving to inside of corner to pass resulting in car contact	20 – Race exclusion
9	Driving outside the white lines at the edge of the track (or what is deemed to be the edge of the track)	20 – 40
10	Causing damage to the circuit surface, the facilities or surrounds due to carelessness, malice or negligence.	20 – 40
11	Dragging debris back onto the track that adversely affects other competitors. For example (but not limited to) oil, soil, grass, components, etc	20 – 40
12	Failure to comply with flag signals	20 – Race Exclusion
13	Refusing to provide APRA with video footage when requested. Footage must be made available for up to seven (7) days from the previous race meeting unless instructed otherwise.	Race, Meeting or Season exclusion
14	Failure to provide APRA with video footage when requested. Footage must be made available for up to seven (7) days from the previous race meeting unless instructed otherwise.	40
15	Bringing APRA, it's members or any associated entity into disrepute by any behaviour on or off the track	Meeting or Season exclusion
16	Putting controversial video footage into the public arena without the prior written approval of APRA.	40
17	Vehicle not in compliance with APRA regulations. This can also be applied to the results of prior meetings where the compliance infringement is likely to have occurred.	
17.1	Tampering, damage or removal of any security seal without prior approval from APRA management.	100 - Season exclusion
17.2	Level 1 breach – non performance enhancing	10 - 40
17.3	Level 2 breach – performance enhancing or intentional breach of regulations	Race, Meeting or Season exclusion
18	Lodgement of frivolous or vexatious inquiry or protest	Race, Meeting or Season exclusion
19	Underweight	

19.1	Underweight 1-5 kg (1099 kg – 1095 kg)	10
19.2	Underweight 6-10 kg (1094 kg – 1090 kg)	30
19.3	Underweight 11 kg + (1089 kg or lower)	60
19.4	Refusal to have vehicle weighed	Round exclusion

As per section 13 of the Membership application: The Australian Pulsar Racing Association Limited (APRA) has a three-strikes-and-you're-out policy. Any on/off track incidents that are found to have been caused by carelessness, malice or aggression by a driver will be reported to the event stewards or APRA. Should a driver be found to be responsible for causing three on/off track incidents on separate occasions, the driver's APRA Membership will be revoked and all circuit promoters will be notified.

17. GENERAL REGULATIONS:

- (i) All Competitors must be a financial member of the series to compete in any of the APRA Championship Events or Series.

18. SERIES CONTROL ITEMS - CONTACTS:

- (i) Toyo Control Tyres (195/50/15R R888R Proxes) (Your APRA Membership Number may be recorded).

New South Wales –

Gordon Leven Motorsport Tyres

Unit 6/133 Russell St,
Emu Plains NSW 2750

Ph: 02 4735 4500

Victoria –

Essendon Tyre Power

392 Keilor Rd,
Niddrie VIC 3042

Ph: 0419527188

- (ii) Yellow Speed Control Suspensions (the Yellowspeed Dynamic Pro Sport Coilover)

Australia Wide -

MX5 Mania Sydney

3/827 Old Northern Rd,
Dural NSW 2158

Ph: 02 9482 3238

(Your APRA Membership Number may be recorded).

- (iii) Exhaust

Australia wide –

Turbo Exhaust Centre

42 Chifley St, Smithfield NSW 2164

Ph: (02) 9756 1163.

Appendix A – Nissan N14/N15 OEM engine specifications

A.1 General Specifications

Cylinder arrangement		In-line 4
Displacement	cm ³ (cu in)	1,998 (121.92)
Bore and stroke	mm (in)	86 x 86 (3.39 x 3.39)
Valve arrangement		DOHC
Firing order		1-3-4-2
Number of piston rings		
Compression		2
Oil		1
Number of main bearings		5
Compression ratio		9.5

A.2 Connecting Rod

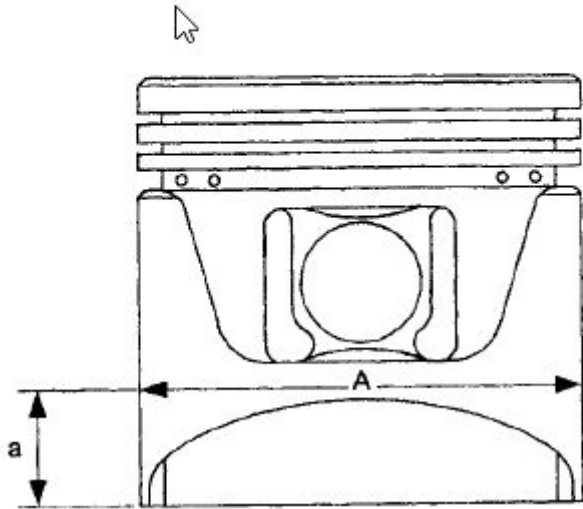
CONNECTING ROD

Unit: mm (in)

Center distance	136.30 (5.3661)
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Piston

Unit: mm (in)



SEM750C

Piston skirt diameter "A"

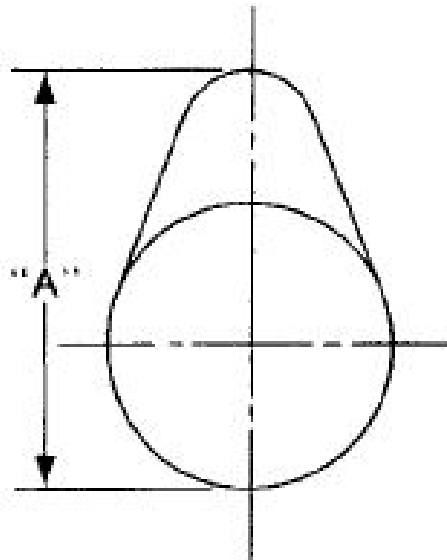
Standard

Grade No. 1	85.980 - 85.990 (3.3850 - 3.3854)
Grade No. 2	85.990 - 86.000 (3.3854 - 3.3858)
Grade No. 3	86.000 - 86.010 (3.3858 - 3.3862)
0.20 (0.0079) over-size (Service)	86.180 - 86.210 (3.3929 - 3.3941)

"a" dimension 14.0 (0.551)

Piston clearance to cylinder block 0.010 - 0.030 (0.0004 - 0.0012)

A.4 Camshaft height and valve lift



EM671

Cam height "A"

Intake	38.408 - 38.598 (1.5121 - 1.5196)
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Exhaust	37.920 - 38.110 (1.4929 - 1.5004)
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Wear limit of cam height	0.2 (0.008)
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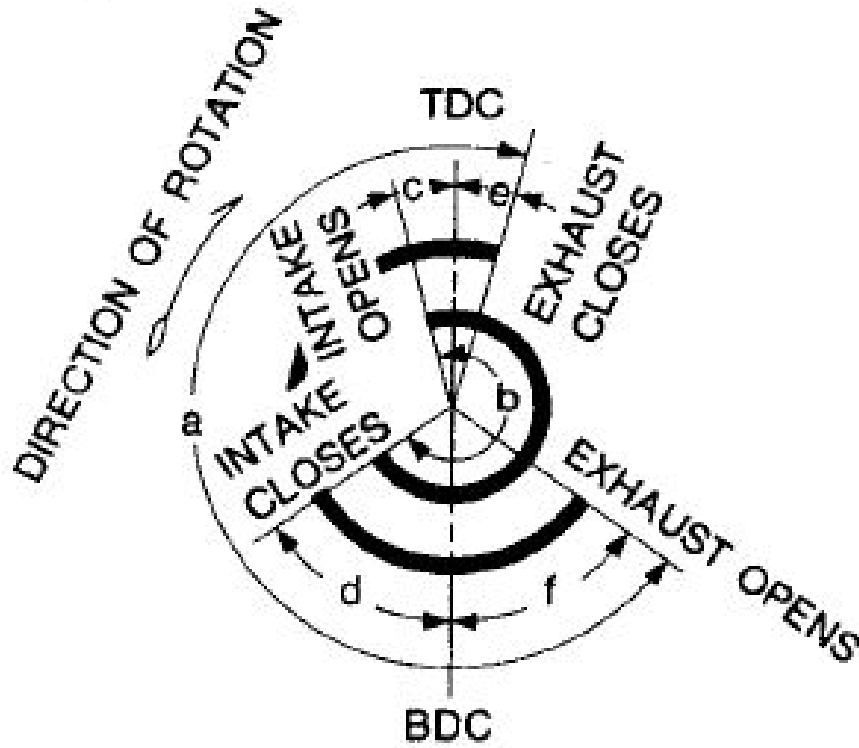
Valve lift

Intake	10.0 (0.394)
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Exhaust	9.2 (0.362)
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*Total indicator reading

Valve timing



EM120
Unit: degree

a	b	c	d	e	f
240°	248°	13°	55°	3°	57°

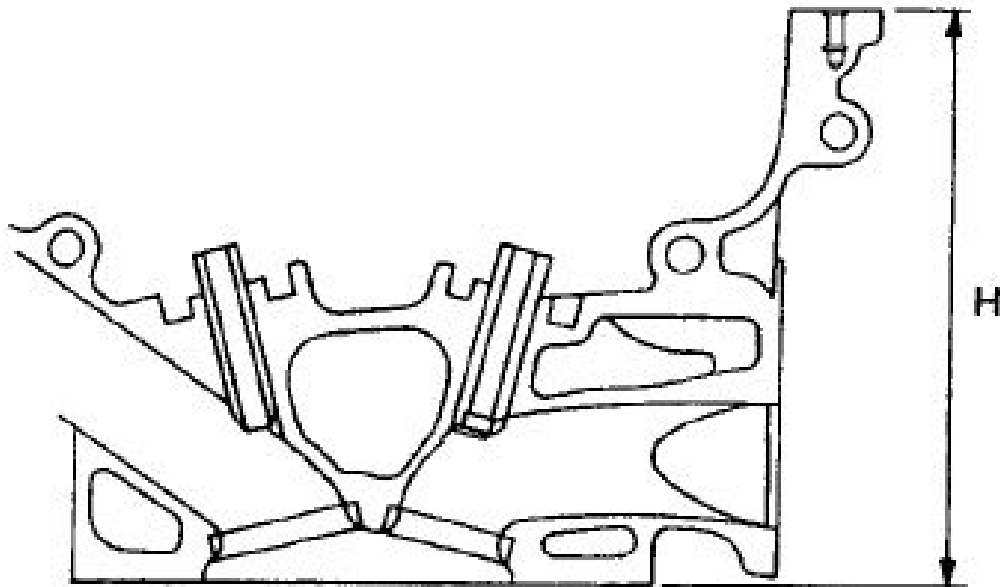
Valve spring

Free height	mm (in)	49.36 (1.9433)
Pressure N (kg, lb) at height mm (in)		
Standard		578.02 - 641.57 (58.94 - 65.42, 129.96 - 144.25) at 30.0 (1.181)
Limit		549.2 (56.0, 123.5) at 30.0 (1.181)
Out-of-square	mm (in)	Less than 2.2 (0.087)

CYLINDER HEAD

Unit: mm (in)

	Standard	Limit
Head surface distortion	Less than 0.03 (0.0012)	0.1 (0.004)



SEM043F

Nominal cylinder head height "H"

136.9 - 137.1
(5.390 - 5.398)