

# WOLLONGONG SPORTING CAR CLUB

## VEHICLE TYPE REGULATIONS

version 1.0 effective 1<sup>st</sup> January 2011

Wollongong Sporting Car Club uses a modified version of the NSW Supersprint Panel's Vehicle Regulations. These allow for a combination of racing classes from the CAMS Manual while allowing for road registered vehicles at the entry level.

The 6 types are:

Type 1-2 Road registered or road registerable production cars (excluding four wheel drive turbos, clubmans, kit cars and replicas) with limited modifications.

Type 3 Competition vehicles based on Group 3J – Improved Production Cars rules as defined in the CAMS Manual.

Type 4 Competition vehicles based on Group 3D - Sports Sedan rules as defined in the CAMS Manual. In addition, any vehicle that conforms to Type 1, 2, 3 or SV on race tyres.

Type 5 Racing Cars and Sports Racing Cars

Type SVA Road Registerable clubmans, kit cars, replicas and four wheel drive turbos

Type SVB Modified four wheel drive turbos.

### MULTIPLICATION FACTORS FOR CAPACITY

For all Vehicle Types, capacity must be calculated on the following basis:

Rotary Engines Multiply displacement by 1.8

Forced Induction Multiply displacement by 1.7

Forced Induction Rotary Multiply displacement by 3.06

### Type 1 -2 Vehicle Regulations

#### 1 General

- 1.1 The category is generally intended to cater for registered or registerable production cars with limited modifications. Four Wheel Drive Turbos, Clubmans, Kit Cars and Replicas are specifically excluded from this Type.
- 1.2 Allowable vehicle body types include open sports (with mudguards), sports coupes, sedans, hatchbacks, station wagons, utilities and vans.
- 1.3 The entire vehicle must be as originally specified by the manufacturer except for the specific freedoms allowed herein.
- 1.4 The vehicle must be a Production Car.
- 1.5 The vehicle must be Road Registered or Road Registerable and, apart from any freedom specifically mentioned in these regulations, no change is permitted to be made to the vehicle during competition that would render it ineligible for such registration.
- 1.6 The vehicle must comply with the "General Requirements of Automobiles" in the CAMS Manual and any modifications necessary to comply with Schedules A & B are permitted.
- 1.7 Where freedom is permitted to fit nominated or recognised parts, such freedom is strictly limited to such components themselves and it shall not be permissible to modify other parts, save by the drilling of holes for supporting purposes.
- 1.8 Any vehicle that is classified as a Type 2 vehicle pursuant to these regulations shall, at the option of the Entrant, be permitted to be enter as a Type 1&2, Type 3, Type 4 or

a Type SV vehicle in any Class within those Types provided that engine capacity of the vehicle does not exceed the maximum capacity allowable in the Class entered.

**1.9** Factory Extras are permitted.

## **2 Coachwork**

**2.1** Safety equipment and cosmetic or comfort accessories may be added, provided they do not improve the performance of the vehicle.

**2.2** Reforming of the wheel-arch beading against the inside of the mudguard is permitted, and any body joint protrusion may be rendered safe.

**2.3** Additional instruments and switches are permitted and may be fitted to a separate panel.

**2.4** Additional headlights (eg fog lights and driving lights), in accordance with 1.5, are permitted.

**2.5** The spare wheel and associated tools may be removed.

**2.6** The steering wheel may be replaced.

**2.7** The driver's and passengers seat may be replaced with a non-standard seat that is commercially available and permitted in a Road Registered vehicle. Seat supports may be modified to enable fitment. Any rear seat or seats may be removed.

**2.8** Carpets and sound deadening material may be removed.

**2.9** Bracing may be fitted between the front MacPherson strut towers.

## **3 Engine**

**3.1** Carburettors may be replaced, provided the replacement(s) are of the same configuration (i.e. downdraught or side draught) and have the same number of inlet venturis as the originals.

**3.2** A sandwich-type adaptor plate to enable installation of a replacement carburettor is permitted.

**3.3** Fuel injectors are free but not their number or position. Fuel injection cannot replace carburettor(s) and vice versa. EMS Modifications are permitted on non-turbo cars.

**3.4** Pistons and piston rings are free.

**3.5** Material may be removed from, but not added to, piston crowns and cylinder heads for the purpose of volumetric balancing of the combustion chambers only.

**3.6** Material may be removed from conrods, crankshafts and flywheels for the purpose of balancing and surface polishing.

**3.7** Material may be removed from cylinder bores (for reconditioning purposes) to the limit of manufacturer's specifications.

**3.8** The camshaft is free but not the number of bearings.

**3.9** Inlet and exhaust manifolds and ports may be internally polished and reshaped.

**3.10** On rotary engines the original dimensions of the intake and exhaust ports on the inner side of the engine can be changed, however, bridge and peripheral porting is not permitted.

**3.11** On turbocharged vehicles, no modifications are permitted to the induction system or any components associated with its functioning. Maximum inlet pressure must remain in accordance with the manufacturer's specifications for the vehicle. No EMS Modifications are permitted on turbocharged vehicles.

**3.12** Baffle plates may be fitted to and modifications may be made to increase the oil capacity of the removable section of the oil pan.

**3.13** The air cleaner and filter element is free.

**3.14** Freedom of supply is permitted in respect to condensers, coils, filter elements, spark plugs, leads, fan belts, radiator hoses and gaskets.

**3.15** The exhaust system is free on naturally aspirated vehicles. On turbocharged vehicles the exhaust is free from the exit of the turbocharger only. No muffler(s) shall be visible outside the perimeter of the vehicle when viewed from above or the side.

Note: noise restriction requirements of the vehicle registration authority must be adhered to.

**3.16** Air conditioning systems are free.

#### **4 Transmission**

**4.1** Clutch linings are free, as is their method of attachment.

**4.2** Limited slip differentials are permitted only when available as an option for the model concerned from the original manufacturer, or its authorised supplier. Modifications to the differential cover or the fitting of a high capacity differential cover to increase the oil capacity of the vehicle differential are permitted.

**4.3** Non-standard gear and differential ratios are permitted only when available as an option for the model concerned from the original manufacturer.

#### **5 Brakes**

**5.1** Brake linings and rotors are free provided that the diameters of the rotors are not increased.

#### **6 Suspension**

**6.1** The type of shock absorber is free but not their number or mounting points.

**6.2** The rate and length of springs is free and adjustable spring platforms are permitted.

**6.3** Sway bars may be added, replaced or deleted.

**6.4** It is permitted to adjust the wheel alignment in accordance with the manufacturer's recommendations and/or normal wheel alignment principles, except that the original dimensions must be respected as to wheelbase and a maximum increase in track of 25mm (1") is permitted for camber adjustment only.

**6.5** Camber adjustment kits are permitted.

**6.6** Plain bushings may be replaced by those of a different material provided that original dimensions are retained.

#### **7 Fuel**

**7.1** Only Commercial Fuel may be used.

#### **8 Wheels and Tyres**

**8.1** Wheels can be altered, in both diameter and width, by up to one inch in width and two inches in diameter over manufacturer's original specifications, provided that the tyres do not extend beyond the outer edge of the coachwork (including wheel arch flares) when viewed vertically from above.

**8.2** Only Road Tyres are permitted to be used. Racing tyres marked "For Racing Only" or "Not for Highway Use", or words to that effect, including slicks or wets, may not be used. Tyre sizes with respect to width and aspect ratio are free.

**8.3** At no time prior to the commencement of competition may any tread wear indicator as provided by the manufacturer be exposed. In all areas where there is no indicator the original tread pattern must be clearly visible except on the shoulder of the tyre where excessive wear may occur due to steering and cornering.

#### **9 Steering**

**9.1** Aftermarket power steering cooling units are permitted.

## **Type 3 Vehicle Regulations**

(Based on Group 3J Improved Production Regulations)

### **1 General**

- 1.1** Apart from the freedoms and requirements set out hereunder, this Category is identical to Group 3J - Improved Production Cars as specified in the CAMS Manual.
- 1.2** Allowable vehicle body types include open sports (with mudguards), sports coupes, sedans, hatchbacks, station wagons, utilities and vans.
- 1.3** Provided it complies with all of the requirements of a Group 3J – Improved Production Car as contained in the CAMS Manual other than those contained in Clause 1.1 of those requirements, an Improved Production Import is permitted.
- 1.4** Any vehicle that is classified as a Type 3 vehicle pursuant to these regulations shall, at the option of the Entrant, be permitted to be entered in any supersprint as a Type 3 or Type 4 vehicle in any Class within those Types provided that engine capacity of the vehicle does not exceed the maximum capacity allowable in the Class entered.
- 1.5** All vehicles that are not Road Registered must be issued with a CAMS log book, which must be available for inspection when the vehicle is presented for scrutineering.
- 1.6** Clubmans, Kit Cars and Replicas are excluded from this Type.
- 1.7** If a vehicle is supercharged (includes turbocharged) and the supercharger is recognised as standard production for the model of the vehicle, then if: -
  - (a) EMS Modifications have not been made, and
  - (b) the supercharger has not been modified in any way, and
  - (c) the maximum inlet pressure and engine static compression ratio DOES remain in accordance with the manufacturer's specifications for the vehicle it is eligible as a Type 3 vehicle.
- 1.8** If a vehicle is supercharged (includes turbocharged) and the supercharger is recognised as standard production for the model of the vehicle, then if: -
  - (a) EMS Modifications have been made, and/or
  - (b) the supercharger has been modified, and/or
  - (c) the maximum inlet pressure and engine static compression ratio does not remain in accordance with the manufacturer's specifications for the vehicle it is eligible as a Type 3 vehicle but only if a CAMS Approved Restrictor is fitted to the vehicle.
- 1.9** If a vehicle is supercharged (includes turbocharged) and a supercharging system is not recognised as standard production for the model of the vehicle, it is eligible as a Type 3 vehicle but only if a CAMS Approved Restrictor is fitted to the vehicle.

### **2 Wheels and Tyres**

- 2.1** Wheels can be altered in accordance with Group 3J Club Cars regulations, or may be altered to any width, provided that the upper part of the wheel (rim flange and tyre flank) when viewed vertically over the wheel hub centre must be housed within the original bodywork when measured vertically. Reforming of the wheel-arch beading against the inside of the mudguard is permitted.
- 2.2** Road Tyres and treaded race tyres are permitted to be used. Tyre sizes with respect to width /and aspect ratio are free.
- 2.3** At no time prior to the commencement of competition may any tread wear indicator as provided by the manufacturer be exposed. In all areas where there is no indicator the original tread pattern must be clearly visible except on the shoulder of the tyre where excessive wear may occur due to steering and cornering

## **Type 4 Vehicle Regulations**

(Based on Group 3D Sports Sedan Regulations)

### **1 General**

- 1.1 Except as varied by the following clauses in these Type 4 regulations, the Category is identical to the CAMS Group 3D Sports Sedan Class as detailed in the CAMS Manual, and allows highly modified vehicles to run in Supersprints.
- 1.2 Any vehicle that otherwise conforms to Type 1, 2, 3 or SV requirements, excepting Clubmans, Kit Cars and Replicas, shall be permitted to employ or use Race Slicks but if it does so it shall be classified as a Type 4 vehicle. All such vehicles will be classified in the appropriate Type 4 class determined by engine capacity with the exception of Four Wheel Drive Turbos.
- 1.3 Please obtain a copy of the CAMS Manual for full Group 3D specifications.
- 1.4 Vehicles that are not Road Registered must be fitted with an approved roll cage.
- 1.5 Subject to compliance otherwise with the CAMS Group 3D Sports Sedan Regulations, rear engined and mid mounted engined vehicles shall be permitted.
- 1.6 Provided that the vehicle otherwise complies with the requirements for CAMS Group 3D Sports Sedans, allowable vehicle body types include open sports cars (with mudguards), sports coupes, sedans, hatchbacks, station wagons, utilities and vans. Clubmans, Kit Cars and Replicas are specifically excluded from this Type.

## **Type 5 Vehicle Regulations**

### **1 General**

- 1.1 Vehicles competing in this category include open wheel race cars and cars not conforming to other types.
- 1.2 An open wheel car must conform to the published specifications for Formula 4000, Formula Libre, Formula 2, Formula 3, Formula Ford or Formula Vee.
- 1.3 All vehicles that are not Road Registered must be issued with a CAMS log book, which must be available for inspection when the vehicle is presented for scrutineering.
- 1.4 All vehicles in this Type are permitted to use Race Tyres.

## **Type SVA (Special Vehicles)**

### **1 General**

- 1.1 The Category is intended for all Road Registered or Registerable vehicles including Clubmans, Kit Cars, Replicas, and Four Wheel Drive Turbos.
- 1.2 Only Road Tyres are permitted to be used.
- 1.3 At no time prior to the commencement of competition may any tread wear indicator as provided by the manufacturer be exposed. In all areas where there is no indicator the original tread pattern must be clearly visible except on the shoulder of the tyre where excessive wear may occur due to steering and cornering.
- 1.4 Production vehicles must be as originally specified by the manufacturer except for the specific freedoms allowed herein.
- 1.5 The vehicle must be Road Registered or Road Registerable and, apart from any freedom specifically mentioned in these regulations, no change is permitted to be made to the vehicle during competition that would render it ineligible for such registration.
- 1.6 The vehicle must comply with the "General Requirements of Automobiles" in the CAMS Manual and any modifications necessary to comply with Schedules A & B are permitted.
- 1.7 Where freedom is permitted to fit nominated or recognised parts, such freedom is strictly limited to such components themselves and it shall not be permissible to modify

other parts, save by the drilling of holes for supporting purposes.

**1.8** Factory Extras are permitted.

## **2 Coachwork**

- 2.1** Safety equipment and cosmetic or comfort accessories may be added, provided they do not improve the performance of the vehicle.
- 2.2** Reforming of the wheel-arch beading against the inside of the mudguard is permitted, and any body joint protrusion may be rendered safe.
- 2.3** Additional instruments and switches are permitted and may be fitted to a separate panel.
- 2.4** Additional headlights (eg fog lights and driving lights), in accordance with 1.5, are permitted.
- 2.5** The spare wheel and associated tools may be removed.
- 2.6** The steering wheel may be replaced.
- 2.7** The driver's and passengers seat may be replaced with a non-standard seat that is commercially available and permitted in a Road Registered vehicle. Seat supports may be modified to enable fitment. Any rear seat or seats may be removed.
- 2.8** Carpets and sound deadening material may be removed.
- 2.9** Bracing may be fitted between the front MacPherson strut towers.

## **3 Engine**

- 3.1** Carburettors may be replaced, provided the replacement(s) are of the same configuration (i.e. downdraught or side draught) and have the same number of inlet venturis as the originals.
- 3.2** A sandwich-type adaptor plate to enable installation of a replacement carburettor is permitted.
- 3.3** Fuel injectors are free but not their number or position. Fuel injection cannot replace carburettor(s) and vice versa. EMS Modifications are permitted on non-turbo cars.
- 3.4** Pistons and piston rings are free.
- 3.5** Material may be removed from, but not added to, piston crowns and cylinder heads for the purpose of volumetric balancing of the combustion chambers only.
- 3.6** Material may be removed from conrods, crankshafts and flywheels for the purpose of balancing and surface polishing.
- 3.7** Material may be removed from cylinder bores (for reconditioning purposes) to the limit of manufacturer's specifications.
- 3.8** The camshaft is free but not the number of bearings.
- 3.9** Inlet and exhaust manifolds and ports may be internally polished and reshaped.
- 3.10** On rotary engines the original dimensions of the intake and exhaust ports on the inner side of the engine can be changed, however, bridge and peripheral porting is not permitted.
- 3.11** On turbocharged vehicles, no modifications are permitted to the induction system or any components associated with its functioning. Maximum inlet pressure must remain in accordance with the manufacturer's specifications for the vehicle. No EMS Modifications are permitted on turbocharged vehicles.
- 3.12** Baffle plates may be fitted to and modifications may be made to increase the oil capacity of the removable section of the oil pan.
- 3.13** The air cleaner and filter element is free.
- 3.14** Freedom of supply is permitted in respect to condensers, coils, filter elements, spark plugs, leads, fan belts, radiator hoses and gaskets.
- 3.15** The exhaust system is free on naturally aspirated vehicles. On turbocharged vehicles the exhaust is free from the exit of the turbocharger only. No muffler(s) shall be visible outside the perimeter of the vehicle when viewed from above or the side.  
Note: noise restriction requirements of the vehicle registration authority must be

adhered to.

**3.16** Air conditioning systems are free.

#### **4 Transmission**

**4.1** Clutch linings are free, as is their method of attachment.

**4.2** Limited slip differentials are permitted only when available as an option for the model concerned from the original manufacturer, or its authorised supplier. Modifications to the differential cover or the fitting of a high capacity differential cover to increase the oil capacity of the vehicle differential are permitted.

**4.3** Non-standard gear and differential ratios are permitted only when available as an option for the model concerned from the original manufacturer.

#### **5 Brakes**

**5.1** Brake linings and rotors are free provided that the diameters of the rotors are not increased.

#### **6 Suspension**

**6.1** The type of shock absorber is free but not their number or mounting points.

**6.2** The rate and length of springs is free and adjustable spring platforms are permitted.

**6.3** Sway bars may be added, replaced or deleted.

**6.4** It is permitted to adjust the wheel alignment in accordance with the manufacturer's recommendations and/or normal wheel alignment principles, except that the original dimensions must be respected as to wheelbase and a maximum increase in track of 25mm (1") is permitted for camber adjustment only.

**6.5** Camber adjustment kits are permitted.

**6.6** Plain bushings may be replaced by those of a different material provided that original dimensions are retained.

#### **7 Fuel**

**7.1** Only Commercial Fuel may be used.

#### **8 Wheels and Tyres**

**8.1** Wheels can be altered, in both diameter and width, by up to one inch in width and two inches in diameter over manufacturer's original specifications, provided that the tyres do not extend beyond the outer edge of the coachwork (including wheel arch flares) when viewed vertically from above.

**8.2** Only Road Tyres are permitted to be used. Racing tyres marked "For Racing Only" or "Not for Highway Use", or words to that effect, including slicks or wets, may not be used. Tyre sizes with respect to width and aspect ratio are free.

**8.3** At no time prior to the commencement of competition may any tread wear indicator as provided by the manufacturer be exposed. In all areas where there is no indicator the original tread pattern must be clearly visible except on the shoulder of the tyre where excessive wear may occur due to steering and cornering.

#### **9 Steering**

**9.1** Aftermarket power steering cooling units are permitted.

### Type SVB (Modified Special Vehicles)

#### **1 General**

**1.1** The Category is intended for Clubmans, Kit Cars, Replicas, and Four Wheel Drive Turbos which do not comply with restrictions in Type SVA.

**1.2** Allowable modifications are those as set out in the CAMS Manual for Group 3J Improved Production with freedoms as given under Type 3.