

TECHNICAL BULLETIN

GROUP 6SR TECHNICAL REGULATIONS

REFERENCE:

CAMS Online Manual of Motor Sport

http://www.camsmanual.com.au/pdf/02_race/e.%206th%20Category/RA32_Group_6SR_Q411.pdf

RATIONALE:

To update the Group 6SR Technical Regulations

ACTION:

Amend the Group 6SR Technical Regulations as follows:

PREAMBLE

~~The Australian Sports Racer Association (ASRA) comprises representatives from the Sports Racer manufacturers, distributors and competitors and may be consulted by CAMS in respect of the development of regulations for Group 6 SR Sports Racer.~~

1. INTRODUCTION

Sports Racer: A restricted design open, centre seated, sports-racing car with a mid-mounted engine driving the rear wheels only and intended for use in speed events and races.

Each vehicle shall be subject of a vehicle description document approved and issued by CAMS. ~~Each~~ the applicant for a log book is required to submit the CAMS vehicle homologations form **description document** with the log book application or where such a document does not yet exist, shall be required to submit the necessary information to CAMS to produce the required document.

5. ENGINE

5.1 The engine must be the factory standard production engine from the following list:

<u>Engine</u>	<u>Years of Manufacture</u>
<u>Kawasaki ZX10R 1000</u>	<u>2003 - 2008</u>
<u>Suzuki GSXR 1000</u>	<u>2003 - 2008</u>
<u>Kawasaki ZX14R</u>	<u>2001 - 2010</u>
<u>Hayabusa 1300</u>	<u>2003 - 2007</u>
<u>Hayabusa 1340</u>	<u>2008 – 2010</u>

~~5.12~~ The engine shall be a liquid-cooled, four stroke, reciprocating piston unit. The cylinder block and head shall be engine shall be derived from a recognised Japanese manufactured series production motorcycle of which at least 2500 have been produced in total, or 500 or more in any 12-month period-. The maximum engine rotational speed shall be as specified in article 5.32 to and 5.5 inclusive 5.4. The engine must be fitted with a rev limiter fitted so as to permit easy access and interrogation by scrutineers. It must be set to prevent the engine from producing power above the rotational speeds indicated. This rev limiter may form part of the engine management system.

~~5.2~~ The engine is otherwise free must be a factory standard production engine, manufactured between January 2003 and December 2008 for engines under 1000cm³ and between January 2003 and December 2009, subject to it being of maximum capacity of 1355cm³. The timing chain tensioner may be replaced with another of free design.

~~5.23~~ For engines under 1000cm³, the maximum rotational speed shall be 13,000 rpm.

~~5.34~~ For engines from 1001cm³ to 1355cm³ the maximum engine rotational speed shall be 11,000 rpm.

~~5.5~~ The material, type and number of engine mountings are free, as is the position and inclination of the engine in its compartment

~~5.66~~ The cooling radiator and the lines connecting it to the engine are free, as are the thermostat and the fan, and their location. The water pump is free.

5.7 The engine lubrication system is free

~~5.78~~ The exhaust is free. The exhaust pipe outlets must be directed either rearwards or sideways.

5.89 The timing chain tensioner may be replaced with another of free design.**6. SEALING**

6.1 Any component may be sealed at the discretion of the Chief Scrutineer

6.2 Component seals must only be removed by the Chief Scrutineer, or his nominee

67. FUEL SYSTEM

~~67.1~~ Fuel must be a **Pump Fuel as defined in Schedule G (see “General Requirements for Cars and Drivers”)** A Commercial Fuel (as defined above), with a maximum ethanol content of 10%. Pump Fuel shall be available for sale on demand from a roadside retail bowser outlet at each of at least five separate service stations in each of at least three Australian States. A mixture of Pump Fuels with the same hydrocarbon profile is permitted (eg, brands of unleaded petrol (ULP) may be mixed.
Commercial Fuel in compliance with schedule G (see “General Requirements for Cars and Drivers”)

~~67.2~~ No fuel pumps, fuel filters or fuel lines may be positioned inside or pass through the cockpit unless protected by a cover that is impervious to the passage of flame and/or fluid.

~~67.3~~ Fuel tanks must be properly protected. All fuel tanks situated outside the main structure of the car must be surrounded by a 10mm thick crushable structure. The tank must be isolated by means of bulkheads preventing the fuel from passing into the cockpit or engine compartment or coming into contact with exhaust piping, in the event of spillage, leakage or any other accident occurring to the tank.

89. ELECTRICAL EQUIPMENT

~~89.4~~ The alternator is free **must be the standard production unit supplied with the engine and shall be fully operational**

910. TRANSMISSION

~~910.1~~ Gearbox: The gearbox **must comprise factory production standard gears & ratios only. Undercutting is permitted to damaged gears** is free, but ~~Each~~ **Each** car must have a working reversing mechanism. It must be possible for the driver to select the reversing mechanism while seated normally at the wheel and with the engine running. Automatic gearboxes are prohibited.

~~910.2~~ **Gear selector forks** ~~Clutch: The Clutch is~~ **are** free.

~~910.3~~ **Clutch & Flywheel: The clutch basket and flywheel are free**

~~910.4~~ Final drive assembly: The final drive assembly and differential are free.

11. SUSPENSION

~~11.4~~ **The minimum unsprung weight is as follows:.**

Front Suspension 21Kg

Rear Suspension 26Kg

The minimum unsprung weight is measured by disconnecting the pushrod and removing the wheels, and does not include the weight of the pushrod or damper (if applicable)

132. WHEELS, TYRES AND STEERING**13.4 The minimum weight for each wheels with a dry tyre fitted is:**

Front Wheel	9Kg
Rear Wheel	12Kg

143 COCKPIT

~~143.1~~ The cockpit seating position may **must** be either central or offset in relation to the centre line of the vehicle. ~~The passenger opening (where relevant) may be covered with a removable panel. This may be of a flexible or rigid material. It must be securely fastened in such a manner, that it cannot come loose at racing speed.~~

~~143.2~~ The point at which the steering column passes through the dashboard and the pedals are attached to the chassis can be located centrally or to one side of the vehicle centreline.

~~143.3~~ Footwells: The minimum width of the driver's footwell is 250mm and this width must be maintained over a height of at least 250mm.

~~143.4~~ The only components that may be fitted in the cockpit are the following:

Safety equipment and structures	Electronic equipment
Driver cooling system	Fire extinguisher
Instruments	Seat/s and controls required to drive the car

These components must be covered by a rigid protection if they have sharp edges, which may cause injury. Their fastenings must be able to withstand a 25G deceleration.

~~143.5~~ Pedals: The soles of the driver's feet, when he is seated in the normal driving position with his feet on the pedals and with the pedals in the inoperative position, shall not be situated forward of the vertical plane passing through the centre line of the front wheels **less than 18cm behind the front bulkhead of the tubular steel frame.**

~~A vehicle subject of a vehicle log book issued prior to 31 December 2011 is not required to comply with this requirement provided the vehicle is fitted with an Impact Absorbing Structure (IAS) as described in Article 14.2.2. The frame of such a vehicle shall incorporate forward-facing braces to protect the driver's legs and feet. The braces shall extend from the front roll hoop to the front bulkhead. (The front bulkhead is defined as the furthest forward transverse section of the main frame.) The soles of the driver's feet shall not extend beyond the front edge of the wheel rims (in normal position; ie, pedals not~~

depressed) and shall remain behind the front bulkhead. The lower main frame rails shall be a minimum of 25cm (9.84") apart (inside dimension) from the front bulkhead to the main roll bar.

154. SAFETY STRUCTURES

154.1 Safety Cage/Rollover Protection Structure:

154.1.1 The safety cage structure shall conform to Schedule J – Safety Cage Structures, and be of at least Type 1 **or Type 2**. The material specification and dimensions shall be in accordance with Schedule J. ~~Forward facing braces within 50mm of the driver's helmet shall be covered with padding to the FIA 8857-2001 or SFI 45.1 standard.~~ Alternatively, the safety cage structure may be certified in accordance with FIA Article 277 – Free Formula Technical Regulations.
Forward facing braces within 50mm of the driver's helmet shall be covered with padding to the FIA 8857-2001 or SFI 45.1 standard.

15.2 Impact Absorption:

~~14.2.1 Crushable Side Structure: For offset seated cars, a crushable structure consisting of a fire-resistant core (polyurethane foam or similar material) fitted between sheet material of minimum 1.6mm thickness is required. It must be fitted on the driver's side of the car between the front and rear wheels. It must not be less than 600mm long and must be displaced about the vertical axis of the steering wheel such that the minimum length either side is 230mm, with a minimum depth (thickness) of 50mm. The volume must not be less than 9000cm³.~~

~~14.2.2 Frontal Protection:~~

~~(a) For cars where the driver's feet are behind the centre line of the front wheels:
—The vehicle must include an impact absorbing structure installed in front of the driver's feet. This requirement is satisfied if the chassis structure extends more than 600mm in front of the driver's feet. Alternatively a crushable structure of similar material construction to the above paragraph may be used. The minimum dimensions of this structure are 300mm x 150mm x 50mm. This structure must be securely attached to the chassis in front of the driver's feet. The placement of this structure must be with the 300mm dimension at right angles to the vehicle centreline, the 50mm dimension parallel to the vehicle centreline and the 150mm dimension generally vertical. The sheet material facings must be on both of the sides with the largest dimensions, ie, the 300mm x 150mm faces.~~

~~(b) For cars where the driver's feet are in front of the centre line of the front wheels:~~

The vehicle must include an impact absorbing structure installed in front of the driver's feet. This requirement is satisfied if the ~~chassis impact structure~~ **absorbing structure** extends more than ~~600~~ **350**mm in front of the **front bulkhead of the tubular steel frame** ~~driver's seat~~. The impact absorbing structure must be securely attached to the front bulkhead of the tubular steel frame. This structure must be independent of the main bodywork and must be solidly fixed to the extremities of the bulkhead (ie, with bolts requiring tools for removal). It shall include a minimum cross section of 200cm, be located at least ~~40~~**18**cm forward of the clutch and brake pedals (not depressed) and be constructed of a minimum of eighteen (18) gauge 6061-T4 or equivalent aluminium using honeycomb sandwich construction, or full composite construction of Carbon Fibre or Kevlar over honeycomb polyurethane foam core with a minimum thickness of ~~13.9~~**20**mm.

The resistance of the impact absorbing structure must be such that during the impact the average deceleration of a 520kg vehicle does not exceed 25 g with an impact velocity at least 12 m/s.

A vehicle subject of a vehicle log book issued prior to 31 December 2011 is not required to comply with this requirement provided it is fitted with the OEM impact absorbing structure.

END