

### Group 4K – Khanacross Cars

Modified Article	Date of Application	Date of Publication

**APPLICATION:** These Group 4K - Khanacross Cars regulations have been published to provide event organisers and those participating in Khanacross events the Technical Regulations which are to apply to all Khanacross vehicles as from the 01/01/2021. Prior to this date the event organiser may determine the eligibility of vehicles using these regulations OR as per the previous and existing Khanacross regulations.

#### 1. VEHICLES

##### 1.1 VEHICLE REQUIREMENTS:

Each vehicle must:

- (a) comply with Schedule A of the Motorsport Australia Manual;
- (b) have not more than two steered wheels, save for a production vehicle originally equipped with four-wheel steering;
- (c) have road wheels of not less than 10" nominal diameter;
- (d) carry competition numbers;
- (e) be fitted with an exhaust outlet/s in compliance with Schedule B of the Motorsport Australia Manual and be adequately muffled so as to limit noise emission to a maximum of 95 dB(A) when tested in accordance with Schedule B of the Motorsport Australia Manual;
- (f) conform to acceptable standards of condition and of presentation;
- (g) be fitted with a seatbelt or safety harness for each occupant, where applicable, in accordance with Schedule I of the Motorsport Australia Manual;
- (h) only use Commercial Fuel as permitted by Schedule G of the Motorsport Australia Manual. Khanacross events may further restrict the permitted fuel in accordance with Schedule G of the Motorsport Australia Manual; and
- (i) be fitted with brakes which operate on all 4 wheels.

##### 1.2 ADDITIONAL REQUIREMENTS

- (a) A Safety Cage Structure is not compulsory for vehicles other than those outlined in Articles 3 and 4 of Group 4K when competing in a Khanacross. However, should a Safety Cage Structure be fitted to a vehicle, the structure must comply with Schedule J of the Motorsport Australia Manual.
- (b) For an event that is conducted on an unsealed surface, the event organisers may by a statement in the Supplementary Regulations restrict the types of tyre permitted for the event. The types of tyre which may be so prohibited include but are not limited to rally, winter tread, bar-tread, mud-and-snow, All Terrain (A/T) and hand-cut patterns.

##### 1.3 GROUP 4K CLASSES

The following are classes for Group 4K. Event organisers may determine alternate classes to suit the vehicles entered into an event, such as classes for front-wheel drive or rear wheel drive, and further split the classes for engine capacity, such as over 2000cc and under 2000cc.

<b>A</b>	0 - 1300cc	<b>F</b>	2WD Specials (including FIA XC)
<b>B</b>	1301cc to 1600cc	<b>G</b>	4WD Production Vehicles
<b>C</b>	1601cc to 2000cc	<b>H</b>	SXS Vehicles

<b>D</b>	2001cc to 3000cc	<b>MP</b>	Modified 2WD & 4WD Production Vehicles
<b>E</b>	3001cc and over.		

- (i) **CLASS F:** 4K Specials
- (ii) **CLASS G:** is for 4-Wheel Drive Production Vehicles
- (iii) **CLASS H:** is for a vehicle defined as a SXS (Side x Side) within the Off Road Vehicles - Specific Requirements for Off Road Vehicles section of the Motorsport Australia Manual. A SXS vehicle that is in standard specification as produced by the manufacturer may enter a Khanacross event and compete in this specification. Any modification from the standard specification will require the vehicle to comply with each requirement of the Off Road Vehicles - Specific Requirements for Off Road Vehicles section of the Motorsport Australia Manual, including where relevant the safety cage requirements of Schedule J of the Motorsport Australia Manual.
- (iv) **CLASS MP:** Modified 4-Wheel Drive & 2-Wheel Drive Production Vehicles

## 2. PRODUCTION VEHICLE

### 2.1 CRITERIA:

A Production Vehicle is a road going vehicle, which may be two wheel or four-wheel drive, that has been produced by a manufacturer and sold to the general public through a recognised dealer network. A Production Vehicle may only be modified in accordance with the following conditions:

- (a) A vehicle may not be converted from front to rear wheel or two wheel to four wheel drive or vice versa.
- (b) The original bodyshell and the original bodywork panels must be retained. The overall length and silhouette, when viewed from the side and from above, must not be less than the original except where a modification permitted affects the silhouette.
- (c) Each front door must remain operational with the original hinges and latch mechanism.
- (d) A bumper bar which is affixed by fasteners, and is independent to and not integrated with any other bodywork, such as front air dam, front guards and grill, may be removed.
- (e) Spoilers, air dams and wheel arch flares may be added.
- (f) Both driver and passenger front seats must remain in their standard position. It is permissible to remove the rear seats if required.
- (g) Front door trims must be fitted, which may be of an alternate rigid material. Other interior trim or carpet etc. may be removed.
- (h) Front headlights and rear taillights must remain in their standard location, although they do not need to function.
- (i) The handbrake may be modified, but must work equally on both rear wheels.
- (j) The original windscreen must be retained. Each other window may be replaced with an alternate polycarbonate material and fixed in place. Each replacement front side window must be removable without tools.
- (k) The engine and gearbox must be from the same manufacturer and have been available as an option in the model run of the vehicle.
- (l) Engine/transmission cooling systems are free provided they are:
  - (i) contained within the bodywork and may be fitted underneath the floorpan;
  - (ii) not fitted in the cockpit; and
  - (iii) fitted only with localised modifications by the removal of or replacement of material, such as engine radiator support panel, to facilitate a cooling system modification.

- (m) Suspension and steering components may be replaced with free components with the following conditions:
  - (i) Each component must maintain the principle and operation as per the original manufacturer's components.
  - (ii) The mounting points on the bodywork or chassis for each suspension and steering component must remain as standard.
  - (iii) Adjustment capabilities may be incorporated into replacement suspension or steering components. (i.e. adjustable spring platform on Macpherson Strut or coil over, adjustment in a lower control arm).
- (n) Upgrading of brake rotors and pads is permitted.
- (o) All wheels shall be fitted with tyres which:
  - (i) are pneumatic, containing gas only;
  - (ii) are in a safe condition;
  - (iii) are not fitted with any anti-skid attachments such as studs, chains etc.; and
  - (iv) for sealed surface events all treaded tyres are permitted including those listed in the Motorsport Australia Manual Schedule E Production Car Tyre List except for the following types of tyre which are not permitted:
    - (A) racing slicks;
    - (B) racing re-treads; and
    - (C) tyres marked "not for road use" or "racing purposes only"

### **3. MODIFIED PRODUCTION VEHICLES – CLASS MP**

#### **3.1 CRITERIA:**

A Modified Production Vehicle (Class MP) is a vehicle that has been modified beyond the criteria of a Production Vehicle. The modifications permitted for a Production Vehicle are permitted for a Class MP vehicle. Additionally a Class MP vehicle must meet the following requirements:

- (a) All parts of the original body between and including the front firewall and rear most rear suspension mounting points must remain intact including roof, pillars, and floor pan.
- (b) Bodywork panels may be of a different material to the production part, except for the front doors which must comply with the Production Vehicle requirements, refer 2.1(d).
- (c) Any exposed metal brackets or bodywork components (chassis rails, bumper mounts etc.) which extended beyond the external bodywork remaining, be it modified or otherwise, or which may pose a hazard, to person or other objects, must be removed or covered with a suitable ridged material.

#### **3.2 PERMITTED MODIFICATIONS**

The following modifications are permitted for a Class MP vehicle beyond those permitted for a Production Vehicle:

- (a) Rear doors, boot panel, tailgate/hatch may be modified leaving only the outer skin permanently and securely affixed in place.
- (b) The bonnet or engine cover may be modified or replaced with an alternate solid material. All exposed rotating parts on the engine are to be fitted with a suitable guard to prevent contact by persons or other objects.
- (c) Front and rear bumper bars, included those integrated to other bodywork, may be removed in their entirety.
- (d) It is permitted to remove the windscreen in which case the vehicle must be fitted with a minimum of a Type 2 Safety Cage Structure complying with Motorsport Australia Manual; Schedule J.
- (e) Each other window may be removed in its entirety.

- (f) The engine and driveline are free in which case the following will apply:
  - (i) The floor pan and firewall may be modified to accommodate the replacement or relocation of engine or driveline components. Any material removed from the floor pan or firewall must be replaced with material of the same type and fixed in place.
  - (ii) The original chassis may be modified by the removal or replacement of material. Additional brackets/mounts may be added. In each case the integrity of the chassis must be maintained.
- (g) Each engine and driveline component must be suitably sealed from the cockpit.
- (h) Suspension and steering components may be modified by the removal of or by the addition of material including the mounting points on the bodywork, chassis. Suspension and steering components are otherwise free.
- (i) Brake components are free.

## **4. SPECIALS**

### **4.1 CRITERIA FOR SPECIALS:**

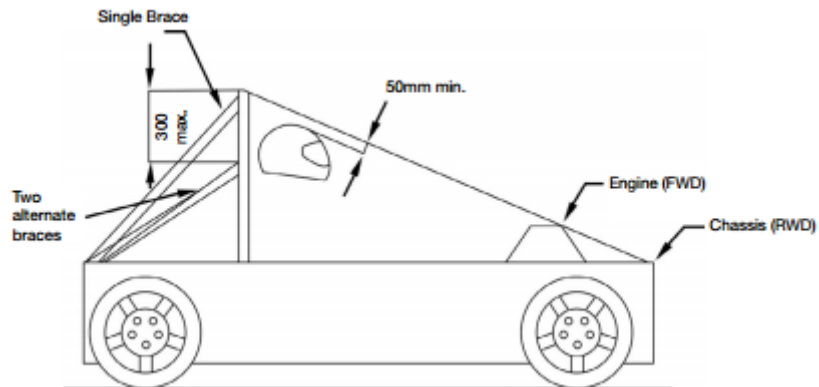
Purpose-built vehicles, which must:

- (a) have a wheel base not less than 1800mm;
- (b) be of sound and solid construction;
- (c) be fitted with some form of protection between the engine and driver's compartment suitable and sufficient to prevent the passage of flame;
- (d) be fitted with a solid and rigidly attached floor, and covers of solid material which effectively separate the passenger compartment from the exhaust system, the transmission shaft/s and joints, the brakes, the road wheels and their attachments and linkages;
- (e) have sides on the passenger compartment extending at least from the toe-board to the rear of the seat/s, contiguous with the floor throughout their length, of a height not less than 150mm above all parts of the uncompressed seat cushion/s;
- (f) be fitted with a securely attached driver's seat;
- (g) be fitted with a fuel tank safely and securely installed;
- (h) have any battery safely and securely installed;
- (i) have all brake, fuel and electrical lines securely mounted;
- (j) not have any open carburettor intake/s intruding into the passenger compartment. The use of flame-retardant air cleaner/s is recommended;
- (k) have mudguards (if fitted) securely mounted;
- (l) not have any form of electronically-controlled traction, braking or suspension control aids.

### **4.2 SAFETY CAGE STRUCTURE**

- (a) Specials must be fitted with a Safety Cage Structure complying with Schedule J of the Motorsport Australia Manual and the following:
  - (i) The minimum requirement is for a Type 2 Safety Cage Structure.
  - (ii) A minimum of 50mm clearance is to be maintained above the driver's helmet (for all drivers of the vehicle) when measured perpendicular to a line drawn from the top of the main roll bar to the top of the engine (not including peripherals such as carburettors) or alternatively the chassis at the front of the vehicle. Refer Diagram 1.
  - (iii) The Safety Cage Structure must be mounted to the vehicle in accordance with Article 18 of Schedule J.

**DIAGRAM 1.**



**4.3 MINI MOKES**

Mini Mokes must be fitted with a Safety Cage Structure which complies as a Type 2 in accordance with Schedule J of the Motorsport Australia Manual.