**1. Groups and classes** (weights are with driver onboard and car in race condition as it exits the circuit)

			2-valve	4/5-valve
		CC capacity	Kg	Kg
8	SuperCars	0-2000 Turbo		1,300
7	GT Cars	3,001-3,500		1,250
		2,501-3,000		1,200
		2,001-2,500		1,150
6	Touring	1,601-2,000		1,100
5	Super 1600	0 - 1,600		1,000
4	Classic GT	3,001-3,500	1,100	1,150
		2,501-3,000	1,050	1,100
		2,001-2,500	1,000	1,050
3	Classic Touring	1,601-2,000	950	1,000
		0 - 1,600	850	900
2	BimmaCross			
1	StockHatch			

# 2. General Regulations

**1.** PRODUCTION – the word production will be taken to mean any car or part thereof listed in any publication as available to the public for general sale.

**2.** FUEL – Restricted to approved list, see addendum.

**3.** ELIGIBILITY - The following information needs to be available to the organisers in such form as to convince them of its authenticity, or will be obtained from other technical sources as determined by the organisers, before any vehicle can be eligible for competition: Original Manufacturers' brochure; owners' manual and/or FIA Homologation papers; listing in Buyers' Guide; Historic Vehicle Identification Form, Internet sources etc. All material that is used to confirm the specification of a vehicle must be presented on demand.

# **4.** All modifications are forbidden unless expressly stated in the regulations specific to the group in which the car is

entered, by the general regulations or "Safety Equipment".5. It is the duty of each competitor to satisfy the Scrutineers and the Stewards of the meeting that his vehicle complies with these regulations in their entirety at all times during the event.

**6.** Minimum weight is the real weight of the car as it competes with fully equipped driver on-board and ready to race. All liquid tanks (lubrication, cooling, braking, etc.) must be at the normal level. It is permitted to complete the weight of the car by one or several ballasts provided that they are strong and unitary blocks, fixed by means of tools with the possibility to fix seals, placed on the floor of the cockpit or roll cage.

**7.** Only the following accessories may be installed in the cockpit: safety equipment, communication equipment, ballast, windscreen washer container, sealed battery.

**8.** The top 1/3 of the wheel diameter must be covered by the wheel arch when viewed from above.

**9.** Throughout the car, any nut, bolt, screw, pipe or hose may be replaced and have any kind of locking device (washer, lock nut, etc.).

**10.** Interior insulation, lining, padding and interior trim may be removed. External decorative strips may be removed. The dashboard, inner door and side panels may be replaced.

**11.** Jacking points may be strengthened, moved, and increased in number.

**12.** The fitting of under-body protection is allowed, provided that these have no other function and are removable.

**13.** All wiring may be replaced; switches, fuses, relays are unrestricted as is electronic control of non-driveline or suspension components. Head and tail lights may be replaced with fibreglass copies.

**14.** Roof vents and any other mechanisms for increasing cockpit airflow are unrestricted

**15.** A functional starter must be fitted and be operable by the driver when seated.

**16.** Cars must be fitted with a gearbox including a reverse gear and be able to be operated by the driver when he is normally seated.

**17.** Fluid reservoirs are unrestricted as long as they are secured and sealed.

**18.** Transponders will be in use at each meeting. Each driver will be required to have their own transponder unless provided by the organizers. It is the driver's responsibility to ensure that their transponder is operating correctly. Any problems should be brought to attention of organizers immediately.

**19.** All cars must be equipped with front and rear towing eyes with a hole of minimum dimension 25mm x 40mm situated 25mm forward of the adjacent bodywork. They painted yellow, red or orange in contrast to the colour of the car.

**20.** Cars must be fitted with mud-flaps behind all four wheels extending to a minimum of 25mm either side of the tyre tread and to a maximum of 75mm above the ground.

**21.** At least one mirror of a minimum surface area of 500mm2 must be securely mounted and positioned to give a clear view to the rear.

**22.** The rear doors of a 4/5 door car may be sealed shut by welding.

**23.** The locking devices on the bonnet and boot lid, as well as the hinges, are free, but each lid must be fixed at four points, and opening from the outside must be possible. The original closing systems must be removed.

**24.** Openings may be made in the bonnet for ventilation, provided that they do not allow mechanical components to be seen.

**25.** It is permitted to remove the window opening mechanisms from all four doors or replace electric winders with manual winders.

**26.** Wheel measurement: the complete wheel (flange  $+ \operatorname{rim} +$ inflated tyre) must always fit inside a U-shaped gauge, the measurement to be made on an unloaded part of the tyre. **27.** Fuel tanks may be replaced by foam-filled fuel cells (manufactured by a recognized manufacturer) either in the original location of the tank or in the luggage compartment. There must be an orifice to evacuate any fuel which may have spread into the tank compartment. The position and the dimension of the filler hole as well as that of the cap may be changed as long as the new installation does not protrude beyond the bodywork and guarantees that no fuel shall leak into one of the interior compartments of the car. If the filler hole is situated inside the car, it must be separated from the cockpit by a liquidtight protection. Tanks may be ventilated through the car roof. 28. Fuel and hydraulic pumps and pipes are unrestricted but if pumps are mounted in the passenger compartment must be under a sealed cover to not contravene 2.7.

**29.** 4WD and/or turbocharged cars are only allowed in class 8 and are limited to 2.0ltrs capacity.

**30.** Windshields must be laminated glass; all other glass must be replaced with 4mm polycarbonate.

## 3. SuperCars, GT Cars, Touring Cars and Super 1600 — Highly modified 4-seater, front-engine passenger cars.

#### 1. Engine

**a.** Unrestricted but the block and head must be production items with the same number of cylinders and located in the same general area as the production engine.

b. All supercharged cars are limited to an engine capacity of 2,000cc and must be fitted with a restrictor fixed to the compressor housing all the air necessary for feeding the engine must pass through this restrictor, which must respect the following: The maximum internal diameter of the restrictor is 45mm. This must be maintained for a minimum distance of 3 mm measured downstream of a plane perpendicular to the rotational axis situated at a maximum of 50 mm upstream of a plane passing through the most upstream extremities of the wheel blades (see current FIA Appendix J FIA drawing 254-4).

This diameter must be complied with, regardless of the temperature conditions. The external diameter of the restrictor at its narrowest point must be less than 51mm and must be maintained over a distance of 5 mm to each side. The mounting of the restrictor onto the turbocharger must be carried out in such a way that two screws have to be entirely removed from the body of the compressor, or from the restrictor, in order to detach the restrictor from the compressor. Attachment by means of a needle screw is not authorised. For the installation of this restrictor, it is permitted to remove material from the compressor housing, and to add it, for the sole purpose of attaching the restrictor onto the compressor housing. The heads of the screws must be pierced so that they can be sealed. The restrictor must be made from a single material and may be pierced solely for the purpose of mounting and sealing, which must be carried out between the mounting screws, between the restrictor (or the

restrictor/compressor housing attachment), the compressor housing (or the housing/flange attachment) and the turbine housing(or the housing/flange attachment) (see FIA drawing 254-

**4).** The exhaust gases from the waste-gate must exit into the vehicle's exhaust system and must not be recycled in anyway. Furthermore, there must be no connection between the intake and exhaust systems. Water injection is prohibited. Spraying of the intercooler is prohibited. Supercharged cars must not be equipped with any device which allows the boost pressure, or the electronic management system controlling the boost pressure, to be adjusted by the driver while the car is in motion (except the throttle pedal). Ceramic components, variable diameter inlets and adjustable internal vanes on turbochargers are forbidden. **c.** Variable valve timing and variable length inlet trumpets are not permitted

**d.** Titanium is only permitted in connecting rods, valves, valve retainers and heat shields.

e. The use of magnesium is not permitted in moving parts.

f. The use of any ceramic component is forbidden.

**g.** The use of carbon or composite materials is restricted to non-stressed covers or ducts.

**h.** Only a direct mechanical linkage between the throttle pedal and the engine load control device is permitted.

i. Fuel system is unrestricted

#### 2. Transmission

**a.** The operating method and the design of the system are free except for traction control which is not allowed.

**b.** Conversion to four-wheel drive or rear-wheel-drive is permitted, see diagram 279-1.

**c.** Front and rear limited slip differentials must be mechanical. Active differentials are not permitted. *Mechanical limited slip differential' means any system, which works purely mechanically, i.e. without the help of a hydraulic or electric system. A viscous clutch is not considered to be a mechanical system.* 

**d.** In the case of a 4-wheel drive vehicle, the addition of a hydraulic system or a viscous clutch to the central differential is allowed but this system must not be adjustable when the vehicle is in motion. A maximum of two wires are permitted to the centre differential to power an electric oil pressure pump, provided that the wires serve no other purpose.

**e.** Any sensor, contact switch or electric wire on the four wheels, gearbox or front, middle or rear differentials is forbidden. Only one sensor for displaying the ratio engaged is authorised on the gearbox, on condition that the sensor/electric wire/display assembly is completely independent of the engine control system. **f.** Mazda Rotary engine displacement: 12A - 1,948cc (1,146cc x 1.7); 13B - 2,224cc (1,308cc x 1.7); 20B - 3,335cc (1,962 x 1.7). Weighted as multi-valve engines.

#### 3. Steering & Suspension

**a.** Cars must be fitted with a sprung suspension.

**b.** Suspension components are free but All suspension members must be made from a homogeneous metallic material.

**c.** Front axle - Modifications to the bodyshell or chassis are limited to reinforcement of the existing anchorage points or modifications necessary to provide clearance for suspension components, drive shafts, and wheel/tyre.

**d.** The front subframe is unrestricted as regards the material and the shape, provided that it is interchangeable with the original part, the original number of anchorage points remains unchanged, it can be dismounted (no welding) and it is not connected to the rear subframe.

**e.** New subframe anchorage points are allowed if situated inside areas modified for a new tunnel (FIA drawing).

**f.** Rear axle - Modifications to the bodyshell or chassis to accommodate the changed position of pivot and mounting points, are limited to those in (FIA drawing 279-1).

**g.** The use of active suspension is forbidden.

**h.** Hydro-pneumatic suspension systems are permitted, on condition that they do not have active control.

# 4. Wheels

aximum Sizes:	
SuperCars:	8″ x 18″
GT Cars:	8″ x 18″
Touring Cars:	8″ x 17″
Super 1600:	7″ x 17″

#### 5. Brakes

**a.** The operating method and the design of the system are free except there must be a double circuit operated by the same pedal which shall normally control all the wheels. In case of a leakage at any point of the brake system pipes or of any kind of failure in the brake transmission system, the pedal shall still control at least two wheels.

b. Anti-lock brake systems are not permitted.

**c.** The brake discs must be made from ferrous material.

**d.** A handbrake is mandatory and it must be efficient and simultaneously control the two front wheels or the two rear wheels.

#### 6. Bodywork/Chassis

**a.** A transmission tunnel may be modified or replaced with one fabricated from steel of original production thickness as well as a housing and brackets for a rear axle (drawing 279-2).

b. Bonnet, boot/trunk lid and wings/fenders may be replaced with composite panels. Replaced panels must all function as original, be fabricated from multi-layered composite material and be double skinned like the originals. Hinge and catch mounts must be reinforced. Doors may be lightened or replaced in composite material but only if the rollcage is fitted with double door bars in a diagonal 'X' or horizontally with vertical bracing in a grid pattern.
c Rear wings, front spoilers and wheel arch extensions may be fitted. The rear wing must not be taller than 150mm above the height of the original roof line and no wider than the original car (discounting wing mirrors). Wheel arches, spoilers and bumpers must extend no more 100mm from the original plan of the vehicle. Rear aerodynamic device must have the maximum dimensions defined in Drawing 279-4.

**d.** The front bulkhead may only be modified to mount engine ancillaries, not to reposition the engine. The bulkhead on Class 7 cars may be reshaped to allow engine fitment but number 1 cylinder CL must be no further back in the chassis than the front axle CL.

# **4. Classic** – Modified 2WD 4-seater passenger cars marketed before December 31<sup>st</sup>, 1981.

**General:** The original mechanical parts, except those for which the regulations provide freedom of replacement, may be subjected to all perfecting operations by means of finishing or machining, provided the origin of the production part may always be ascertained undoubtedly. Parts may be repaired, balanced, lightened, reduced or modified in shape through machining. **Art 252.** – **Definition: K)** Coachwork: Externally; all parts of the car licked by the air-stream and situated above a plane passing through the centre of the wheel hubs. Internally: all visible parts of the passenger compartment. **In all cases, only period technology may be employed.** 

#### 1. Engine

**a.** Valves, springs, guides and seats are free, the number of valves per cylinder is not.

**b.** Induction system is free but fuel-injection may only be used if and as originally fitted by the manufacturer in period.

**c.** The reboring or replacement of sleeves of the engine is allowed up to the limit of the cylinder-capacity class in which the vehicle is entered.

**d.** Exhaust manifold and system are free.

**e.** Engine plain or roller bearings may be replaced by others of the same type.

- f. Crankshaft, bearing caps and conrods are free.
- g. Gaskets and seals are free.

**h.** The oil sump, pump and filter are free.

i. Oil coolers are free (type, number and capacity).

j. Camshafts and valve gear are free but not the location, number

or driving system of the camshaft.

**k.** Pistons, pins and rings are free.

I. Flywheels are free.

**m.** Mountings are free as is the inclination and position of the engine; bulkheads may be slightly modified to fit engine ancillaries but not to relocate the engine.

**n.** Cooling fans and water pump may be modified, replaced or removed.

**o.** Engines may be changed to a different type or capacity from the same manufacturer and period but must have the same number of cylinders, location and configuration (straight-4, flat-6, rotary etc.).

p. Post-1981 4-valve cylinder heads may be fitted to period engines (e.g. Ford YB 16v heads on Pinto engines, Toyota GE 16v heads on 4A engines etc.) as long as no re-engineering is required (i.e., the cylinder head must be a later evolution for the period block and not intended for a completely different engine).
q. Coil, condenser, distributor and regulator are free but not the method of operation or attachment system. Points may be replaced with electronic triggering of the coil but electronic ignition advance curve management is not allowed.

**r.** Spark Plug make, size and type are free.

**s.** Water radiators and catch tanks are free.

**t.** Multi-valve engines limited to 2,500cc

**u.** Mazda Rotary engine displacement: 12A – 1,948cc (1,146cc x 1.7); 13B – 2,224cc (1,308cc x 1.7). Weighted as multi-valve engines.

#### 2. Transmission

**a.** Gearboxes may be replaced with H-pattern units from modern production cars with no more than five forward gears.

- **b.** Mountings and internals are free.
- **c.** The location and type of the gear lever are free.
- **d.** Clutches and their operating levers, rods, cylinders are free.
- e. Differential & axle mountings are free.
- f. Transmission shafts between the engine and wheels are free.

**g.** Rear axles may be replaced but must function as original type (live, semi-trailing IRS etc.). Internals and hubs are unrestricted.

#### 3. Steering & Suspension

**a.** The removal, replacement or addition of anti-roll bars is allowed.

**b.** In the case of a rigid axle rear suspension it is allowed to add locating arms and mounting brackets.

**c.** The fitting of joints and attachment points of a different type and/or material is allowed.

**d.** Hubs and spindles are free.

**e.** Springs and shock-absorbers are free. Auxiliary springs may be added.

**f.** According to **Art. 252** for chassis and coachwork, it is allowed to modify the non-visible parts of the coachwork.

**g.** Mounts and brackets may be replaced or added to the chassis and suspension.

**h.** Power steering may be replaced, added or removed.

i. Steering boxes may be replaced with steering racks.

**j.** Only period suspension technology is allowed, remote-reservoir dampers and other modern components are not allowed.

#### 4. Wheels

Over 1600cc:	8" x 15" or 9" x 13"
Up to 1600cc	7" x 15" or 8" x 13"

#### 5. Brakes

**a.** The mounting of a double pump (master cylinder) or of any device which produces simultaneous action on the four wheels and a separate action on two wheels is allowed.

**b.** Brake discs (maximum diameter 320mm), calipers (maximum 4 pistons), drums, wheel cylinders and pads/linings are free.

**c.** Backing plates and shields may be added, modified or removed.

**d.** Cooling air-ducts may be added provided they do not entail a modification of the coachwork.

e. The addition or removal of brake servos is allowed.

#### 6. Bodywork/Chassis

**a.** The non-visible parts of the doors, of the engine bonnet and of the boot may be removed or lightened.

**b.** Wheel arch extensions are free, provided they do not increase the width of the wings by more than 10cm (each side).

**c.** Front aerodynamic devices are unrestricted within the plan of the original vehicle. Only production rear aerodynamic devices allowed.

d. Bonnet, boot/trunk lid and wings/fenders may be replaced with composite panels. Replaced panels must all function as original, be fabricated from multi-layered composite material and be double skinned like the originals. Hinge and catch mounts must be reinforced. Doors may be lightened or replaced in composite material but only if the rollcage is fitted with double door bars in a diagonal 'X' or horizontally with vertical bracing in a grid pattern.
e. Side and rear windows may be replaced with lexan.

**f.** Bulkheads may be modified to fit engine ancillaries but not to relocate the engine.

#### 7. Post – 1981 Classics.

The following cars will be allowed in this group with production engines and gearboxes and no bodyshell modifications other than strengthening, removal of redundant brackets and 50mm wheel arch extensions. Peugeot 205

Opel Corsa/Vauxhall Nova A Vauxhall Astra Mk2/Opel Kadett (8 valve only) VW Golf Mk2 (8 valve only) Toyota Corolla E80 series (FWD and RWD, 16v head allowed) FWD Toyota Starlet EP70 series Suzuki Forsa/Swift Mk1 BMW E30 (M10/20/30 engines only) Ford Escort Mk3 with FWD CVH or RWD Escort Mk2 running gear

## 5. BimmaCross (BMW E36 Compact Ti, M44 engine), Stock Hatch (Opel Corsa B and Chevy Monza 1.4ltr) NOTE:

a. General regulations 27. and 28. do not apply to these groups.b. The Stock hatch group will be split into classes for adults and a separate class for teenagers (13 to 18).

### 1. Engine

a. The accelerator cable may be replaced or doubled.

b. The make and type of the spark plugs and high tension leads are unrestricted.

c. The thermostat, fan control system and radiator cap are unrestricted.

d. The fitting of baffles in the oil sump is allowed

e. The material of the elastic part of the engine mountings is free, but not the number of engine mountings.

f. Exhaust systems may be replaced from the joint with the manifold back to the exit. Additional parts for the mounting of the exhaust are authorized, the material is free.

g. Replacement of air filter, fuel filter and oil filter cartridges is allowed.

#### 2. Transmission

a. Clutch assembly is unrestricted but not the number of discs.b. The material of the joints of the gearbox linkage is free but not the method of actuation or shift-pattern.

### 3. Steering & Suspension

a. The reinforcing of the suspension and its anchorage points by the addition of material is allowed.

b. Springs are unrestricted.

c. Shock absorbers/dampers/McPherson Struts: Unrestricted, provided that their number, their type (telescopic, arm, etc.), their working principle (hydraulic, friction, mixed, etc.), and their attachment points remain unchanged. Remote-canister dampers are not allowed. McPherson strut top mounts may be replaced/modified.

d. Rubber/plastic suspension joints/bushes may be replaced with non-production bushes. Dampers may have uniball joints if their only function is damping.

e. **NOTE:** Stock Hatch cars may only use a series-specific suspension kit.

#### 4. Wheels

a. Bimmacross: 7" x 15"

b. JuniorCross: 6" x 14"

### 5. Braking system

a. Brake linings are free, as well as their mountings (riveted, bonded, etc.) provided that the contact surface of the brakes is not increased.

b. Brake disc protection plates may be removed or bent.

c. Brake servos may be disconnected; anti-lock braking systems may be disconnected, re-plumbed or removed.

d. A mechanical rear braking distributor (bias valve) may be fitted or removed.

e. A complete hydraulic handbrake system may be fitted.

g. The handbrake lever may be converted with a 'fly-off' mechanism.

### 6. Bodywork/Chassis

a. Reinforcement bars may be bolted to the chassis or suspension components.

### 7. Electrical system

a. Battery make, capacity and cables are free.

### 8. Fuel System

a. Fuel hoses/pipes are unrestricted but must be protected if running under the bodyshell.