

## **6.01 Cooling Systems (Open Vehicles)**

Where a cooling system is utilised in an open vehicle, it must be installed in the stock location for the body style used. Front engine dragsters must have the system installed in front of the engine. The possibility of a high pressure leak in the driver area should always be considered.

## **6.02 Electronics Definition**

Listed below are the known electronic devices and a brief statement advising whether they will be permitted or not. It will form the base from which rule adjudication in relation to electronics will be made from. It is acknowledged that in its pure form, drag racing from the era that we are representing no electronics were available, however, that notwithstanding it would be remiss of us to exclude such electronics devices that offer no racing advantages but do provide the competitor the opportunity to remove as much risk as is possible to engine or component damage. In the spirit of Nostalgia Drag Racing all driving functions must be accomplished by the driver and not by electronics. All on-track tuning of fuel, clutch, transmission and ignition systems must be a direct function of the driver or team member.

Trans Brakes - Permitted.

Competitors must be able to demonstrate to officials how the device is wired in. All wiring must be visible and traceable.

Line Locks - Permitted.

Competitors must be able to demonstrate to officials how the device is wired in. All wiring must be visible and traceable.

RPM Limiter - Permitted.

A single maximum RPM limiter permitted; with a 2nd stage lower RPM limiter permitted only prior to vehicle launch. ("Two- Step" control, Burnout only)). Three-Step control is Not Permitted.

RPM Switches - Permitted.

As to light an indicator only.

Automated Gear Shifting - NOT Permitted.

Apart from OEM type automatic transmissions when used in the drive position, each gear shift must be a function of the driver.

Throttle Stops/Controllers - NOT Permitted.

Delay Boxes - NOT Permitted.

Defined as a device, electrical, mechanical or otherwise that's express purpose is to delay the movement of the vehicle following driver release.

Other Delay Devices - NOT Permitted.

Defined as: "Any timing device used to delay the operation of a vehicle function."

Vehicle OEM Electronics - Permitted.

Unless otherwise stated in class requirements.

Electronic Ignition Systems - Permitted.

Including aftermarket ignition systems.

Electronic Fuel Injection - Permitted.

Unless otherwise stated in class requirements.

Data Logging - Permitted.

Only to be used to record functions of the vehicle. Must NOT ACTIVATE any function on the vehicle, that is; it must not allow the driver to control the vehicle performance whilst it is on the track. All wiring must be fully visible and traceable. Officials may request data print-out at any time during the course of the event

### **6.03 Engine**

With the exception of Exhibition vehicles all engines used in nostalgia drag racing must be of automotive or motorcycle origin. All vehicles regardless of induction are restricted to one (1) mechanical fuel pump, one (1) magneto or ignition system, and an injector hat no larger than 45 square inches.

All injector hats must be in the nostalgia style, (the use of carbon fibre is not permitted)

Crankshaft centre lines may not be more than 600mm (24 inches) from the ground in any class.

All sedan type vehicles quicker than 10.99 (1/4 mile)/7.00 (1/8 mile), and any dragsters, altereds or other vehicles where the engine is not enclosed, must be fitted with a steel or forged aluminium harmonic balancer/pulley, or a scattershield. Vehicles using a cast balancer/pulley must be fitted with a scattershield constructed of 6mm (1/4 inch) steel plate securely fastened with at least two 10mm (3/8 inch) high tensile bolts in such a manner as to contain or deflect fragments should the balancer disintegrate.

The width and circumference of the outer ring must be covered and the front of the shield should extend down to at least the level of the mounting ring in order to retain fragments or to prevent the outer ring from coming forward. A 10mm (3/8 inch) diameter hole may be drilled in the shield for timing mark purposes. No other openings are allowed. Vehicles using a steel outer ring do not require a shield, but the outer ring must have some positive means of preventing it moving forward. This can be achieved by having a step on the back of the ring or a front retaining plate equal to the outer diameter of the ring, made of at least 4.5mm (3/16 inch) steel or 6mm (1/4 inch) alloy plate. All pulleys/crank hubs/harmonic balancers must be positively retained to the crankshaft with a bolt.

### **6.04 Exhaust**

All vehicles regardless of class must be equipped with exhaust collectors or stacks installed in such a manner as to direct the exhaust gases out of the body, to the rear of the vehicle, away from the driver/rider and fuel tank. Exhaust gases must not be directed towards the track surface. All Funny Cars must be fitted with double-wall headers.

### **6.05 Flash Shield**

Injector tubes may extend through bonnet if required. Carburettors in those classes requiring a bonnet may only be exposed via a bonnet scoop closed on the top, back and side except in sedan classes where original factory glass windscreen is used. Rear of bonnet may only be raised if original factory glass windscreen is fitted. All cars using carburettors and not requiring a bonnet must be equipped with a metal flash shield so constructed and fitted as to cover the top, back and side to prevent fuel being siphoned into the air stream or blown into the driver's face.

### **6.06 Fuel / Handling**

Only ethanol, methanol, nitro methane, and hydrocarbon fuels homologated with ANDRA will be permitted.

The addition of substances to ethanol or methanol for the purposes of lubrication is permitted where the specific gravity is not adversely affected.

It is the responsibility of the driver to confirm the brand and type of fuel being used. Unacceptable test readings may result in immediate disqualification and/or ANDRA Tribunal action. Results of subsequent laboratory analysis found to be non-compliant within 28 days of the event, will render the competitor liable to a fine of \$2000 and 12 months suspension of their ANDRA competition privileges.

The following procedures must be followed when handling fuel during events

- No naked flames within 10 metres of any point where refueling or draining of fuel is taking place.
- Plastic or composite containers are to be approved for the storage of Group 3 Dangerous Goods.
- When refueling or draining fuel from a vehicle an earth strap must connect the fuel container and fuel tank of the vehicle.
- Refueling or draining of fuel from vehicles is not permitted in any enclosed, unventilated area. All ignition sources (electric fans, battery chargers, welders or any other electrical device) must be removed or switched off before refueling takes place.
- Any spill must be cleared immediately and reported to a Track Official.

As a minimum, ALL race teams are to have a fire extinguisher meeting General Regulation 4.9.4. in their paddock area at all times.

Use of the following Fuels is permitted under clause (e) of section 4.1.6, in ANDRA Drag Racing;

- VP C14+-AU -SGFO (yellow) • Sunoco Standard (purple)
- VP C16 - AU - BGFO (green) • Sunoco Supreme (light blue)
- VP C25 - AU - AURGFO (red) • Sunoco Supreme + (light red)
- VP Motorsport 103 AU (red) • Sunoco Maximal (red)
- VP SVO - 5 AU (yellow) • Sunoco Maximal #5 (red)
- VP ROO25 (clear) • Sunoco GT 100 (clear)
- VP 110 - AU - SGFO (purple) • Sunoco GT Plus (light blue)
- BP Racing Fuel 100 (green)
- Shell R F100 (blue)
- Shell Racing Fuel A - Methanol based (purple)
- ELF Moto 124 (clear)
- Methanol (clear) • Nitro Methane (yellow)

NB: Additional fuels may be approved from time to time. Updates are published on the ANDRA Online website ([www.andra.com.au](http://www.andra.com.au)) and in the ANDRA Fastlane.

NB: Competitors are reminded that pending legislation may limit or prevent the use of leaded fuels beyond June 2005.

## **6.07 Fuel Systems**

When permitted, fuel tanks and fuel lines should be located ahead of the engine. Fuel blocks, if used, must be mounted at least 150mm (6 inches) forward of the flywheel/bellhousing area.

Fuel lines in the flywheel/bellhousing area must be enclosed in a 400mm (16 inch) length of steel tubing 3mm (1/8 inch) inch minimum thickness, securely mounted as a protection against fuel lines being severed, or be re-routed outside the chassis or frame rails. This requirement is waived for vehicles fitted with either a steel flywheel and pressure plate or a scattershield. Where fuel lines pass supercharger drive areas they should be encased in protective steel tubing or braid.

Fuel tanks located in front of grille and out of the protective areas of the body, frame and wheels must be protected against collision damage.

All mechanically fuel injected vehicles, or any vehicle using a pressurised fuel tank must have a quick-action fuel shut-off within easy reach of the Driver operating on the main fuel line between the pump and the injectors.

Under no conditions, except where permitted by class regulations, are any fuel tanks, lines, fuel pressure gauges or other units containing fuel permitted in the driver's compartment. All tanks must be completely isolated from the driver's compartment by a firewall, completely sealed so as to prevent any fuel from entering.

Where the fuel tank is located in front of the driver and engine is in rear (rear engine dragsters) fuel lines must be isolated from the driver's compartment with a sub floor or by the use of steel braided lines. All vehicles where a fuel line passes the driver must be fitted with metal fuel lines except for a maximum of 300mm (12 inch) of approved flexible hose to allow connection at the tank or pump. The metal fuel line must carry at least 150mm (6 inches) past the firewall. In all cases, recognised steel braided, composite and Kevlar lines may be used in lieu of solid metal lines. In all cases, fuel lines must be of suitable construction, designated as fit for purpose by the manufacturer.

## **6.08 Liquid Overflow**

All vehicles with any type of Liquid Overflow capable of discharging liquid onto the racing surface must have a catch-can to accumulate the excess liquids. Minimum capacity 600ml. All liquid filler caps must be positively retained.

Any supercharged vehicle faster than 8.99 seconds (1/4 mile) / 5.70 seconds (1/8 mile) must have a breather/oil tank, with a minimum capacity of 4 litres. In all cases the minimum capacity does not include the capacity of breather hoses, tubes or chassis rails. Failure to ensure that the breather/oil overflow tank is drained prior to a run may result in disqualification from that pass. Refer Race Procedures and Regulations.

## **6.09 Lower Engine Containment Devices**

All piston engined cars using a supercharger/turbocharger or nitrous oxide with an ET quicker than 8.99 seconds (1/4 mile) / 5.70 seconds (1/8 mile) must be equipped with a lower engine containment device ("nappy") capable of containing oil and debris, constructed by a recognised commercial manufacturer. In addition, Nostalgia Fuel Cars must be fitted with an engine oil retention (belly) pan. Refer Section 3.25.

## **6.10 LP Gas**

Vehicles equipped with liquid petroleum gas units must have these units installed by an approved installer. Onus of proof rests with competitor.

## 6.11 Nitrous Oxide

Competitors are reminded of the dangers associated with the incorrect use of nitrous oxide. It is highly recommended that systems are sourced in complete form, from a recognised manufacturer. The following safety rules apply;

a) **Bottle Mounting:** Bottles must be mounted outside of the engine compartment. Any bottle located in the drivers compartment must be mounted with metal brackets secured to a structural point of the vehicle, and a relief valve, vented outside the drivers compartment, to the atmosphere. Bottles must be upright or semi upright. Inverted bottles not permitted. Bottles must be equipped with on/off taps. Bottle shut-offs requiring special keys are not acceptable. Bottles used must be purpose built for use with nitrous oxide. Electric devices used for raising the temperature of nitrous oxide bottles must be produced for that purpose by an industry manufacturer, and may not be modified in any way.

b) **Nitrous Lines:** Must be outside of driver's compartment, except where the bottle is mounted in the driver's compartment, in which case the line must be plumbed outside the compartment as near as possible to the bottle outlet. Where lines pass converter or flywheel area, they must be encased in 3mm (1/8 inch) minimum thickness steel tubing. High pressure rated hose of minimum 1500 psi is required, and a sintered bronze filter must be fitted in the gas supply line.

c) **Switching:** Both solenoids must operate from a common switch and the system must be capable of being switched off by three means: (1) when the throttle is closed, (2) by a special arming switch that provides power to the solenoids, (3) through the normal ignition switch.

d) **Markers:** All vehicles using Nitrous Oxide must display special markers located on the outside of the vehicle, in the area where the supply bottle is located and in the top left corner of the front windscreen. The marker shall be a yellow diamond, with N20 printed in black letters. These are available from ANDRA.

e) **Warning Light:** A prominent blue warning light must indicate when the system is armed.

## 6.12 Superchargers

All vehicles equipped with belt driven superchargers must be fitted with a guard to prevent fuel line damage in the event of belt loss, except in cases where braided lines are used. On all cars running quicker than 10.99 (1/4 mile) / 7.00 (1/8 mile) Rootes type superchargers must be fitted with a front end plate of 6mm (1/4 inch) minimum thickness, a rear end plate of 7.62mm (.300 inch) minimum thickness, and supercharger restraints used in conjunction with aluminium shear bolts at the mounting face.

Maximum overdrive may not exceed 50%. Nostalgia Fuel vehicles must be fitted with a supercharger restraint system meeting SFI Spec. 14.3. Cast supercharger pulleys are prohibited in Nostalgia Fuel, Junior Fuel and Gas classes.

## 6.13 Throttle

Each car, regardless of class, must have a foot throttle, incorporating positive action return springs attached directly to the throttle-arm and must register a minimum pull of .9 kg (2lbs). A positive stop over-ride prevention must be used to keep linkage from passing over centre and sticking in an open position. Licensed hand throttles are permitted in H/R, AM/M and A/M Nostalgia Fuel Cars are required to use throttle stop during burnouts. Refer Section 3.24.

## 6.14 Auto Transmission/Protection

The following vehicles using automotive based automatic transmissions, must be fitted with an approved ballistic blanket, a protective shield fabricated from a minimum 6mm (1/4 inch) aluminium or 3mm (1/8 inch) steel offering 180 degrees of protection (pan rail to pan rail), mounted securely with two steel straps 3mm thick and 25mm wide passing under the transmission, or any transmission shield meeting SFI 4.1;

- All dragsters / altereds / funny cars.
- All vehicles using transmission brakes.
- All supercharged vehicles (inc. nitrous oxide) with an ET quicker than 10.99 (1/4 mile)/7.00 (1/8 mile).
- All vehicles quicker than 9.99 (1/4 mile)/6.50(1/8 mile).

Any external shield, or blanket must be removed from the vehicle for checking during the Technical Inspection. All vehicles fitted with a transmission cooler or external plumbing must use industry standard plumbing and equipment, properly barbed fittings and appropriate clamps.

### **6.15 Automatic Transmission Shifters**

All vehicles using an automotive based automatic transmission must be equipped with a positive reverse lockout, and a neutral start override. In cases where a remote starter motor is used, a neutral override is not required.

### **6.16 Clutch**

Cast iron pressure plates, or excessively machined units of any material are not permitted. All cars except those fitted with a torque converter must be fitted with a foot operated clutch.

### **6.17 Drive Line**

On any car in which the driver sits over or behind the rear axle centre or over the tailshaft and universal joints are used, a suitable 360 degree protective shield of 3mm (1/8 inch) steel plate 1.27mm (.050") must be installed, securely mounted to the rear axle centre and the bellhousing or transmission adaptor.

Where possible, couplers are recommended in place of universal joints. For straight couplers, the minimum requirement is 1.6mm (.063 inches) aluminium which must contain an inspection cover for removal and inspection of the coupler, securely mounted to the rear axle centre and the bellhousing or transmission adaptor, or as noted in class requirements.

In place of a crossmember in the vicinity of the front universal joint, all rear wheel drive competition cars with elapsed times quicker than 13.00 (1/4 mile)/8.30 (1/8 mile), using open drive shafts, must have a retainer loop: 360 degrees of enclosure, 3mm (1/8 inch) minimum thickness and 50mm (2 inches) wide, or 22mm (7/8 inch) x 1.62mm (.065 inch) welded steel tubing, securely mounted and located within 150mm (6 inches) of the front universal joint for support of the drive shaft in event of universal joint failure. It is recommended that the loop be round to minimise loading.

On rear wheel drive sedans with fabricated floors, the width and location of the loop should take into account the location of the front yoke and universal in relation to the driver. Rear wheel drive sedans with unaltered steel floors should have the loop fitted as per the diagram below.

Rear wheel drive sedans with a fabricated floor where the driveline passes any part of the drivers body, must have the driveline enclosed in a 360 degrees tube made of 3mm (1/8") steel plate or 1.27mm (0.50") CM 4130 as a minimum and be securely mounted to the frame or frame structure. Must cover the front universal joint and extend rearward a minimum length of 350mm (12").

An anti-rotation device is mandatory in any car where the driver sits over or behind the rear axle.

### **6.18 Flywheel**

All cars in competition (with the exception of sedan type vehicles slower than 10.99 seconds (1/4 mile) / 7.00 seconds (1/8 mile) must be fitted with either a steel or alloy flywheel. No excessively machined units of any material will be accepted.

## 6.19 Flywheel Shields / Bellhousings

The use of a properly constructed steel or titanium bellhousing is mandatory for clutch equipped vehicles in Nostalgia Fuel, Junior Fuel and Gas. All other clutch equipped cars running quicker than 10.99 (1/4 mile) / 7.00 seconds (1/8 mile) are required to use a steel or titanium bellhousing or shield. A totally enclosing 360 degree, one-piece bell housing must be formed or fabricated entirely from 6mm (1/4 inch) steel plate and attached directly to the rear of the engine.

Where used, flywheel shields must be constructed so they completely surround the bellhousing to stop material entering the driver's compartment in the case of clutch failure. The shield should be constructed from 6mm (1/4 inch) steel plate, and extend forward to a point at least 25mm (1 inch) ahead of the flywheel, and 25mm (1 inch) to the rear of the clutch and pressure plate. Shields must not be bolted to the bellhousing and should attach securely to the frame /chassis. All shields or bellhousings must be removed from the vehicle for checking during the Technical Inspection.

An engine support strap made of steel or aircraft cable (chain not accepted) capable of supporting the rear of the engine in case of bellhousing failure is required on all cars, unless it is evident that the headers or frame rails will prevent the engine from dropping.

NB: A ballistic blanket meeting SFI 4.1 may be used as a shield on vehicles where there is no commercially available steel bellhousing.

NB: All titanium bellhousings must display current certification at the SFI Spec. 34.1 level. Steel bellhousings must be checked as part of the ANDRA Technical Inspection or after any incident that may have caused damage. Visual checks will be made for physical distortion caused by internal or external forces, cracks around dowel or bolt holes, inspection openings or mounting faces, and damaged threads.

### Additional Notes

a) A minimum of twelve 10mm (3/8 inch) HT bolts must be used, seven above the crank centre line and five below (see Figure 1). Vent holes must be contained below crank centre line and are limited to a maximum of 25 sq cm (4 square inches).

A clutch inspection/maintenance hole may be cut on the back face of the housing. The hole may not be longer than an area covering 90 degrees of the housing rear surface area. Housings with a radiused back may not have inspection/maintenance hole extending forward of clutch cross shaft or forward or rear most surface of pressure plate. The cover for the inspection hole must be at least 6mm (1/4 inch) thick steel and be fastened with at least six 8mm (5/16 inch) Grade 8 bolts.

Starter pockets must be of same material and thickness as the bellhousing.

Scalloping of the bellhousing flange is accepted if material equivalent to one bolt hole diameter is maintained around each attaching hole and at least 10mm (3/8 inch) of material is maintained between the radius and the edge of the flange.

Motor plate must be 6mm (1/4 inch) aluminium (T6 highly recommended) or 3mm (1/8 inch) steel of full coverage style with minimum hole for crank flange to pass through (Figure 1).

g) Measurement access opening shown in Figure 4.

## 6.20 Rear Axle

Attention should be given to the potential handling problems created by a broken axle shaft when a locked differential or spool is used. Proprietary aftermarket axles produced for drag racing should be used in conjunction with these units. All cars in competition other than genuine street cars with original engines must be equipped with a satisfactory means of rear axle retention. A minimum of .090" steel bearing retainer is required. Full floating rear hubs are required in some classes. Refer Class Regulations.

## **6.21 Transmission**

Ballistic blankets are mandatory on all aftermarket planetary transmissions, in cars that are mechanically or chemically supercharged. All vehicles fitted with a transmission cooler must use industry standard cooler lines and correctly flared fittings (preferably barbed) and correct clamps as a minimum, rubber fuel line etc is not permitted.

NB: Drivers of vehicles leaking transmission fluid due to the failure of pipes, hoses or fittings may be liable to a fine of up to \$500 and/or disqualification if the failure was due to incorrect assembly or the use of sub standard components. Where other than original torque converters are used, all mounting tabs and spacers must be suitably reinforced.

## **6.22 Brakes**

Brakes must be in good working order. Two wheel hydraulic brakes (rear wheels only) are the minimum requirement. Four wheel hydraulic brakes are required on some vehicles as noted in class requirements.

Any car exceeding 170mph must be equipped with 280mm (11 inch) rear wheel discs as a minimum. If a hand lever is used the handle must be inside the driver's compartment.

Brake lines must be routed outside the frame rail or enclosed in a 406mm (16 inch) length of 3mm (1/8 inch) minimum wall thickness steel tubing, securely mounted where line(s) pass the flywheel/bellhousing area and a flywheel shield is not fitted. All fixed brake lines must be steel. Any braking effect that is not directly generated by the driver or rider is prohibited.

## **6.23 Shock Absorbers**

Unless otherwise specified, each car must be equipped with one operative shock absorber for each sprung wheel. Shock absorbers must be either hydraulic or friction type, securely mounted and in good working order.

## **6.24 Steering**

Each car's steering system may be inspected to determine its condition and must be considered safe by the Scrutineer. Steering wheel play must be at a minimum.

Drag link and tie-rods must be secured and keyed.

All altered or modified steering systems may be closely checked for insecure welds and faulty parts.

All rod ends must be a minimum of 10mm (3/8 inch) shank diameter. The use of rod ends using grease nipples, or not suitable for racing applications for any other reason will not be permitted. The use of female rod ends is not permitted except in the installation of rack and pinion steering where a rod end is used to replace the original ball joint and no welding is involved. Rod ends must be installed with flat washers to prevent bearing pullout.

All steering boxes, sectors and shafts must be mounted to the frame or suitable cross member and cannot be mounted in any case to the bell housing or shield.

Any vehicle with a beam axle and rack and pinion steering must have the rack mounted on the axle with a universal joint steering shaft. The length of shaft forward of the joint must be equal to, and travel through the same arc as the radius rods locating the axle.

## **6.25 Suspension**

All cars must have a full suspension of type produced by automobile manufacturers (ie. springs, torsion bars, etc.). Rigid-mount front/rear axles are permitted where indicated by class requirements.

All rod ends where used must be installed with flat washers to prevent bearing pull out. All rod ends must be a minimum of 10mm (3/8 inch) shank diameter, except in Junior Dragster where a minimum of 8mm (5/16 inch) will be permitted. The use of rod ends using grease nipples, or not suitable for racing applications for any other reason will not be permitted. The use of female rod ends is not permitted in suspension components.

Where more than one pair of radius rods are used to locate the front axle, rods must be of the same length.

The front support of ladder bars must have a support (see illustration) in case of rod end failure.

Four link suspensions must be equipped with some adequate form of retention to prevent dropping of suspension arms onto ground in event of joint failure.

## **6.26 Frame Alignment**

Each car in competition must have sufficient positive caster incorporated into the front suspension alignment to ensure proper handling at all speeds.

## **6.27 Ballast**

Any material used for the purpose of adding to a vehicle's total weight must be permanently attached as a part of the vehicle's structure and may not extend behind the rear of the body or above the height of the rear tyre/s. No liquid or loose ballast permitted. All vehicles are limited to a maximum of 90.7 kg (200lbs) removable ballast or less as stated in individual class regulations.

Removable ballast must be securely mounted to the frame, or frame structure by at least two 13mm (1/2 inch) minimum diameter steel bolts for each 45kg (100 lbs) of weight. Recommended forms of ballast are heavy gauge steel floors; frame reinforcing cross members or the addition of safety equipment such as roll bars or cages.

## **6.28 Frame / Chassis**

All new fabricated chassis or repairs must be inspected in an unpainted state by an ANDRA Technical Inspector, and the comments noted in the Vehicle Log Book. All butt welds must have visible reinforcement and excessive grinding of welds is not permitted. No section of the frame may be electroplated.

NB: Damage to the frame/chassis as the result of an accident must be noted in the ANDRA Vehicle Log Book.

## **6.29 Ground Clearance**

All vehicles competing are required to maintain a minimum of 75mm (3 inches) ground clearance, measured from the front of the vehicle to the front edge of the front tyre. Otherwise, all vehicles are required to maintain a suitable degree of general ground clearance for safety and handling purposes. All vehicles will be checked for correct ground clearance during Scrutineering.

Any subsequent staging problems will be assumed to be the fault of the start line equipment, and should a problem occur, both vehicles should be backed out and the problem investigated. If the fault is found to be with one of the vehicles it will be disqualified immediately.

## **6.30 Fasteners**

The use of ultra high tensile fasteners in areas where lateral impact may be experienced is not permitted.

Electroplating of fasteners used in suspension, steering, brake, bellhousing and other high stress applications is not permitted.

## 6.31 Parachutes

All cars exceeding 130mph (208kph), or 140mph (224kph) where four wheel brakes are used, must be fitted with a braking parachute specifically designed for drag racing, produced by a recognised manufacturer of such equipment.

All cars exceeding 200mph (320kph) must be fitted with dual parachutes with separate attachment points for shroud lines. Scrutineers will inspect the proper operation of parachutes, and the condition of the canopies, shroud lines and pilot chutes at every event.

A separate release cable, solidly mounted within 25mm (1 inch) of the lever or ring, must be used for each chute. Parachutes may be deployed separately.

Where nitro-methane is used as a fuel, the parachute pack and exposed shroud lines should be protected with fire resistant material.

In all instances of parachute use the chute must be seen to be deployed by the end of the speed traps. Failure to comply with this ruling may lead to a warning or reprimand. Continued offences may lead to further action. Failure to deploy a chute under competition conditions where considered necessary by ANDRA Stewards is regarded as faulty vehicle preparation.

Shroud line attachment points must be a minimum of one inch in diameter.

NB: In all cases where parachute/s are required, a clearly visible, brightly coloured ribbon/flag must be attached to safety pins or devices used to prevent opening of the parachute/s during pre race preparation.

## 6.32 Roll Bars and Roll Cages

- Hot Rod (closed), AM/M and A/M (Slower than 11.00).
- Street registered open cars slower than 12.99 seconds (1/4 mile) / 8.50 (1/8 mile).
- Open cars complying with relevant CAMS regulations.
- Cars with fixed steel roofs slower than 11.00 seconds (1/4 mile) / 7.00 (1/8 mile) with unmodified monocoque construction. (Refer Definitions).

No roll bar required for the above vehicles.

- All sedans or sedan based vehicles between 11.00 and 11.99 (1/4 mile) / 7.00 and 7.70 (1/8 mile) with modified monocoque construction (Refer Definitions).
- Street registered open cars between 11.00 and 12.99 (1/4 mile) / 7.00 and 8.50 (1/8 mile).

Single rollover hoop covering the full width of the drivers compartment with two backstays and a side intrusion bar of welded construction constructed to ANDRA requirements as a minimum. (Figure 1). Utilities may use a four point roll cage with intrusion bars / diagonals on both sides. Roll cages fabricated from aluminium will be permitted in sedans with fixed steel roofs slower than 11.00 seconds (1/4 mile) / 7.00 (1/8 mile), where the original monocoque construction of the vehicle is unaltered.

- Street registered cars with a fixed steel roof and unmodified monocoque construction running between 10.00 and 10.99 (1/4 mile)/6.50 and 7.00 (1/8 mile) and/or less than 140 miles per hour (225 kph).

Single rollover hoop covering the full width of the drivers compartment with two bolted backstays and a bolted side intrusion bar constructed to ANDRA requirements as a minimum. (Figure 1, Figure 3). Utilities may use a four point roll cage with intrusion bars / diagonals on both sides and single diagonals in the roof and main hoop.

- All other sedans, sedan based or open vehicles 10.99 (1/4 mile) / 7.00 (1/8 mile) and quicker.

Full roll cage mounted at a minimum of six points (Figure 2). Sedan type vehicles that are constructed in such a way that the body could separate from the chassis/roll cage in an accident, mesh or net of a maximum 75mm (3 inch) is required to be fitted to the roll cage over the driver's head to retain the driver's limbs within the cage area in the event of a roll over.

Roll Bar/s:

41.3mm (1 5/8 inch) diameter tube with a wall thickness of 2.9mm (.116 inch), or 44.45mm (1 3/4 inch) x 2.6mm (.102 inches) as a minimum (mild steel), or 1 5/8" x .083" CM4130 or R531.

Rear Stay Bars: If 1 5/8" (.116"), two bars of any length minimum.

If 1 1/2" (.116"), 760mm (30 inch) or less, and must attach within 125mm (5 inch) from top of main hoop.

If 1 3/8" (.116"), minimum of 4 bars. At least 2 bars must attach to horizontal portion of main hoop.

If 1 1/4" (.116"), minimum of 6 bars. At least 2 bars must attach to the horizontal portion of the main hoop.

Side/Cross Bars: 31.8mm (1 1/4 inch) diameter tube with a wall thickness of 1.9mm (.075 inch) as a minimum (mild steel), or 1 1/2" x .065" CM4130 or R531.

Mounting Points: Mounting points not compatible in strength with the roll bar material should be reinforced with a steel plate of at least 56 sq cm (9 square inches), welded or using four 10mm (3/8 inch) bolts.

Nostalgia Dragster / Funny Car / Altered / (Hot Rod open competition vehicles)

The driver's arms must be restrained by a shoulder hoop to which the roll cage is mounted. The rollcage must be attached to shoulder hoop at a minimum of six points (Figure 4, Figure 5). Driver's helmet must be a minimum of 100mm (4 inches) behind the front roll bar.

Rollcage (over 800lbs/363kg): 41.3mm (1 5/8 inch) diameter tube with a wall thickness of 2.9mm (.116 inch) as a minimum (mild steel) or 1 1/2" x .065" CM4130 or R531.

Rollcage (under 800lbs/363kg): 34mm (1 3/8 inch) diameter tube with a wall thickness of 2.9mm (.116 inch) as a minimum (mild steel) or 1 3/8" x .083" CM4130 or R531

Shoulder Hoop/Frame Rails: 31.8mm (1 1/4 inch) diameter tube with a wall thickness of 1.90mm (.075 inch) as a minimum (mild steel) or 1 1/4" or 1 3/8" x .058" CM4130 or R531.

Uprights/ Crossmembers: 31.8mm (1 1/4 inch) diameter tube with a wall thickness of 1.90mm (.075 inch) as a minimum (mild steel) or 1 1/4" x .065" or 1 3/8" x .058" CM4130 or R531.

Diagonals: 22mm (7/8 inch) diameter tube with a wall thickness of 1.5mm (.060 inch) as a minimum (mild steel, CM4130 or R531).

Regulations:

NB: All CM4130 must bear the markings: 4130-MIL-T-6736B-Condition N

Nostalgia Fuel Dragster / Altered / Funny Car.

- Nostalgia Fuel Dragster - SFI 2.3H
- Nostalgia Fuel Funny Car / Altered - SFI 10.1C

The above specifications are a minimum requirement for that class/bracket. Any vehicle built to a later version of a named specification will be accepted.

SFI specifications are developed and published by the SFI Foundation, and are subject to copyright. Copies of the specifications can be purchased from the ANDRA Office, on behalf of the SFI Foundation.

Roll Bars / Cages - General Regulations

Unless specified otherwise, all steel tube shall be round in section of minimum sizes as set out below, electrical resistance welded to S 1450 - 1974 (Circular and Non-Circular Steel Tubes for mechanical and general engineering purposes).

All new fabricated chassis must be inspected in an unpainted state by an ANDRA Technical Inspector, and the details listed in the Vehicle Log Book. Tubing that does not bear CM4130 markings will not be accepted as such. Where R531 tube is used, documentation should be provided.

All welding of CM4130 or R531 must be by the TIG process. Electric resistance or TIG welding is recommended for mild steel tube, and is mandatory for the attachment of roll cage sections.

Where bolted connections are permitted, all bolts should pass through welded sleeves in tube sections to prevent crushing or elongation, and be fitted with locknuts. A welded flat surface should be used under the head of each bolt and nut, where they bear on a tubing section. A minimum bolt diameter of 10mm (3/8 inch) must be used.

In all cases for Sedans, derivatives, where rollover protection is required the main hoop must be inside the drivers compartment.

### **6.33 Stress**

Any vehicle having stress that is concentrated at a central point on the frame/chassis by the location of engine mounts, engine support straps, roll bars, roll bar braces or rear-end assembly is required to have a reinforcing gusset or brace to distribute stress over at least a three foot area to relieve critical stress build up or frame/chassis fatigue at such points of component intersection.

### **6.34 Three Wheeled Vehicles**

Three-wheeled vehicles are permitted only in Exhibition Section and only if driven by pure thrust.

### **6.35 Tyres**

Tyres will be visually checked for condition, pressure, etc., and must be considered free of defects by the Scrutineer prior to any run. All treaded tyres must have a minimum tread depth of 1.6mm (1/16 inch). In classes with tyre width limits, the tread surface will be measured in all cases.

All vehicles exceeding 160 mph (255 kph) are required to use tyres specifically built for drag racing use.

Only dragsters, altereds and motorcycles may use motorcycle tyres.

Cars quicker than 12.50 (1/4 mile) / 8.00 (1/8 mile) using independent front suspension and cross-ply rear slicks are not permitted to use radial front tyres.

Metal valve caps are required on all wheels.

Re-treading of any tyre on any vehicle quicker than 12.50 (1/4 mile) / 8.00 (1/8 mile) or unsafe modification of racing tyres is not permitted.

NB: The use of re-treaded road tyre casings is only permitted on vehicles 12.50 (1/4 mile) / 8.00 (1/8 mile) or slower where they are produced by an organisation accredited by the Independent Re-treaders Division (IRD) of the Australian Tyre Dealers and Re-treaders Association, and the tyre is marked in accordance with AS 1973 - 1993 (the identification of the producing factory on the sidewall and appropriate speed limit).

### **6.36 Wheels**

Hub-caps and clip-on trims must be removed during all competition. Scrutineers may check for loose wheel nuts and cracked or damaged wheels.

Each car must be fitted with automotive type wheels with a minimum diameter of 12 inches (304.8mm) unless class regulations permit otherwise.

Rim width for sedans is a minimum of 3 inches (76.2mm).

The use of automotive wire wheels and centre-lock devices is restricted to cars on which they were originally fitted. Automotive type wire wheels or motorcycle wheels are prohibited in vehicles in Altered classes.

Each wheel stud must protrude past the outer face of the wheel by a distance no less than the diameter of the stud used.

All cars quicker than 10.99 (1/4 mile) / 7.00 (1/8 mile) must be fitted with open ended wheel nuts.

Factory alloy wheels may use original wheel nuts/studs.

Motorcycle or lightweight racing wheels must use spokes with a minimum diameter of 1/8 inch (3.2mm), properly cross laced to provide maximum strength. All spoke holes in hub and rim must be used.

### **6.37 Upholstery / Seats**

The driver's seat in any car in competition must be constructed, braced, mounted and upholstered in such a way that it will give full back and shoulder protection to the driver in the event of a car upset, spin-out or collision. The driver's seat must be supported and secured on the bottom and back by the frame or cross-member. Except where original floors/mounts are used, seats may not be secured to floors or sub floors.

Recognised racing seats may forgo the external bracing when construction offers sufficient internal or external support, fibreglass or similar seats must be externally braced with a minimum of 13mm (1/2 inch) steel tube frame work.

NB: A purpose built racing seat is required in all vehicles with a known performance or class record quicker than 9.99 seconds (1/4 mile) or 6.50 seconds (1/8 mile).

### **6.38 Window Nets**

Where arm restraints are not used in sedans with a ET quicker than 10.99 (1/4 mile) / 7.00 (1/8 mile), a ribbon type window net must be fitted between the side and top bars at the drivers window, and must be permanently attached at the bottom edge.

### **6.39 Airfoils / Wings**

Airfoils, canards, wings and spoilers other than original factory equipment are permitted on open vehicles and supercharged sedans, subject to acceptance by CNDRA. Adjustment or movement of any aerodynamic device during a run is prohibited. All devices must be securely supported and mounted. Nostalgia Fuel wing supports must comply with SFI 2.3H. Refer Definitions.

### **6.40 Competition Numbers**

A permanent ANDRA Competition Number cannot be placed on a vehicle unless the driver is the holder of a permanent ANDRA Licence.

The ANDRA Competition Number displayed on the vehicle must be the ANDRA Licence number of the driver or rider at the time. No two vehicles in Australia may display the same number.

Where a person owns more than one vehicle, additional Log Books will be issued in that owner's name and membership number. Divisional licences do not carry a permanent number and these "casual" entrants are issued with a temporary number in excess of 5000.

Numbers must be of sufficient size and contrast to be easily distinguished from the control tower and displayed on both sides of the vehicle. Minimum size for all vehicles is 150mm x 25mm (6 inches x 1 inch) thick, although numbers on front windscreens may be smaller.

### **6.41 Door Attachment**

Where "quick release" door hinges are used on sedan type vehicles, a positive retaining device must be fitted to prevent accidental detachment of the door from the hinges.

### **6.42 Firewalls**

All cars must be equipped with a flame/fuel proof firewall extending from side to side of the body and from the top of the engine compartment upper seal (bonnet, cowl or deck) to the bottom of the floor and/or bellypan.

Firewalls on supercharged vehicles are to be constructed of aluminium of at least 1.6mm (.062 inches) thickness or steel/chrome moly of at least .9mm (.036 inches), normally aspirated vehicles may use steel of a minimum .6mm (.024 inches) or aluminium of a minimum .82mm (.032 inches).

Fibreglass or magnesium are not acceptable.

Firewall must be so constructed as to provide an isolating bulkhead between the engine and driver's compartment. All holes or openings must be sealed with metal or other flame resistant material.

### **6.43 Floors**

All cars not having floors must be equipped with floor panels made of steel or aluminium which must extend the full length and width of the driver's compartment to the rear of the driver's seat. Cars equipped with bellypans made of fibreglass or other breakable material must have metal subfloors. Bellypans and subfloors enclosing engine or driver's compartment must contain suitable drain holes so that liquids and foreign matter cannot collect and create a fire hazard.

### **6.44 Latches**

Where a vehicle body must be raised for driver access, the latch must be located in the centre of the front face of the body. On other vehicles, a 75mm (3 inch) diameter circle in a contrasting colour is required to indicate the positioning of all latches used to secure engine covers. Reflective tape is acceptable.

Where external hood pins are used this requirement will be waived.

## **6.45 Night Lighting**

All vehicles racing at night must be fitted with at least one operative taillight, which should be illuminated prior to the burnout.

Strobe, high intensity, infrared, flashing, photo sensitive or other light emitting/receiving devices prohibited.

## **6.46 Windscreens**

On open bodied cars, or any other car permitted to enter competition without a windshield, a metal, plastic or Plexiglass deflector must be installed. The deflector should be so constructed that it will divert wind, liquids, foreign matter, etc. over the driver's head, be securely mounted, and installed in such a manner that it does not obstruct the driver's forward view.

## **6.47 Windshield and Windows**

Windshields and/or windows on all competition cars, when listed under class requirements, must be of shatterproof material, safety glass or Plexiglass. Other than factory tint, front windscreens must be clear on all vehicles. Tinting of side windows must not prevent visibility of driver through side windows at night events. Where funny cars have full side windows fitted, a six inch diameter opening must be provided to facilitate access from outside the vehicle.

## **6.48 Weight Distribution**

Each car must have an adequate percentage of its weight carried on the front wheels to ensure proper handling ability at all times. Additional front end weight may be required by the Scrutineer on cars experiencing wheel stands or carrying the front wheels during acceleration.

## **6.49 Batteries**

All wet cell batteries must be located outside of the driver or passenger compartments and must be securely mounted.

Unless otherwise specified in class regulations, any number of batteries may be fitted, provided the combined weight of all batteries does not exceed 68kg (150 lbs).

A 75mm (3 inch) equilateral triangle, coloured blue, or another contrasting colour where necessary, is required on all vehicles fitted with battery or batteries to accurately indicate their location/s.

All competition cars quicker than 11.99 (1/4 mile)/7.70 (1/8 mile) require a battery isolation switch located in the battery location marker, capable of shutting off current flow and operable from the exterior of the vehicle. This is highly recommended for all other vehicles.

It is also recommended that sedan vehicles with trunk mounted batteries have a trunk key permanently fitted to the lock. In open cars, where acid spillage over driver may occur, the battery should be covered and vented to a safe area.

## **6.50 Delay Devices**

Any device installed for the express purpose of creating a delay between release of the brake, clutch, transmission brake or line lock button and movement of the vehicle from the staging beam, Delay/Crossover devices which are operated by a function of the driver, Delay boxes and throttle stops are prohibited in all Nostalgia classes.

## **6.51 Ignition**

All vehicles in competition must have a positive action ignition switch in good working order, located within easy reach of the driver or rider. Magneto button type switches are not permitted. Magneto wiring must be routed outside the frame rail or enclosed in a 400mm (16 inch) length of 3mm (1/8 inch) minimum wall thickness steel tubing when passing near the flywheel/bellhousing area.

## **6.52 Self Starting**

All vehicles are required to be self starting. Once a pair of vehicles is considered to be in the hands of the Starter, any attempt to re-start a stalled vehicle using outside assistance is expressly forbidden. Tow starts, push starts, or the use of rollers are not permitted. All remote starting devices must be fitted with guards over chain/gear drives and electrical connections, to prevent contact with limbs or clothing.

## **6.53 Burnouts**

No person is permitted to hold or touch vehicles during burnouts. No vehicle is permitted to do U turns after a burnout. Where sufficient space is available between the water area and the startline, track preparation should be sufficient that all classes except Nostalgia Fuel will be limited to crossing the startline once under power during the burnout procedure.

NB: Once a vehicle has fired and moved, touching the vehicle in any way is not permitted unless a crew person or official is in clear view of the driver or rider, to signal instructions.

NB: Where a vehicle breaks on the burnout, coming to a halt beyond 30.48m (100ft) from the startline, the track must be cleared before racing resumes.

## **6.54 Computer**

No vehicle may be equipped with a computer that in any way effects the operation of the vehicle. A computer is defined as any electrical device that activates any function of, or in any way effects the operation of the vehicle based on measurement, sensing, processing, etc., of any data related to the performance of the vehicle be preset before the run.

CNDRA reserves the right to disable any electrical device, at any time, at the discretion of the relevant officials. A competitor must then be able to demonstrate repeatable performances with the device disabled. No vehicle may use any other devices directly activated by light sources or radio transmissions from outside the vehicle.

Electronic Fuel Injection is not permitted, unless otherwise stated in class regulations.

## **6.55 Data Logging / Recording**

Data logging/recording devices may be used to record the functions of a vehicle, providing they do not activate any function on the vehicle. Wiring of any Data logger/recorder must be fully visible and traceable by the CNDRA Officials. Devices may be removed, or related configuration software downloaded, at any time at the discretion of the CNDRA Officials. The use of fifth wheel sensing devices or sensors on un-driven wheels is prohibited.

## **6.56 Fire Extinguishers**

Although each track is required to provide adequate fire protection equipment, each participant or vehicle crew is required to have a loaded, serviceable fire extinguisher in their possession, carried in the tender vehicle or otherwise available for immediate emergency use.

Dry chemical type extinguishers (1.2kg/2.5 lbs minimum size) are recommended.

Front engined Nostalgia Fuel dragsters, and any supercharged vehicle with an enclosed fibreglass or composite body running quicker than 8.99 (1/4 mile), are required to carry an on-board fire extinguisher system, with a minimum capacity of 9kg (20 lbs), using one of the following suppression agents;

- Alcohol Type Concentrate (ATC) foam,
- Cold Fire 302,
- Fire X plus.

Systems must be designated as fit for purpose and installed in accordance with the manufacturers instructions. Systems must be activated by mechanical means. Systems must be fitted per manufacturers specifications with the primary nozzle(s) directed in an attempt to protect the driver, with the system divided so that no more than two thirds of the agent is dispersed into the engine compartment by means of nozzles placed in front of each bank of exhaust headers and directed at the engine. The remaining one third should be dispersed into the driver's compartment by means of a nozzle(s) placed near the steering column and directed at the driver as per manufacturer's recommendations. Upon activation the contents of the bottle(s) must fully discharge, partial discharge bottles prohibited. The use of halons is not permitted. Competitors requiring information on options should contact ANDRA.

### **6.57 Guide Persons**

Persons responsible for guiding vehicles back from burnouts must be formally listed as team members, must complete the ANDRA Acknowledgement of Risk statement, and be issued with relevant passes. The onus to ensure that this requirement is met, and all associated responsibilities, lies with the relevant competitor.

### **6.58 Jacks and Safety Stands**

No work may be done under any car during any event while the car is supported by a jack only. Additional safety devices such as jack stands must be used. Failure to observe this rule is grounds for instant disqualification. The onus to ensure that this requirement is met, and all associated responsibilities, lies with the relevant competitor.

### **6.59 Lifting Devices**

Any device used for raising a vehicle's drive wheel/s off the racing surface in the starting area is prohibited. Engines may not be started while driving wheels are raised and not supported by adequate jack stands.

### **6.60 Radio Communication**

Radio communication between the driver/rider and any person outside the vehicle is not permitted in any class other than Nostalgia Fuel. Communication devices added to a helmet should be approved as part of the original helmet certification. Any subsequent additions or modifications to facilitate communication may invalidate the helmet certification.

### **6.61 Support Vehicles/Crew**

Any vehicle apart from the race vehicle required by a competitor in the pit area shall display the Competition Number of the race vehicle, persons under the age of 16 years are not permitted to drive or ride any motorised vehicle within the confines of the event property.

All crew members must be seated completely within the vehicle cab or truck bed of tender vehicles. It is unacceptable for crew members to stand on bumpers or running boards or ride on tailgates, open or closed. Failure to comply will be considered an unsafe working practice and may result in disqualification.

The onus to ensure that this requirement is met, and all associated responsibilities, lies with the relevant competitor. The minimum age for participation is fourteen (14) years old.

## **6.62 Technical Inspections**

The following vehicles must undergo Technical Inspection every two years.

- All dragsters / altereds / funny cars.
- All sedans quicker than 10.99 seconds (1/4 mile)/7.00 seconds (1/8 mile).
- All vehicles in the Exhibition category.
- Any other vehicle deemed necessary by ANDRA /CNDRA Officials.

## **6.63 Event Scrutineers.**

ANDRA Technical Inspections concentrate on construction and fixed safety related features of the vehicle not readily accessible during Event Scrutineering.

Bellhousings and automatic transmission shields will be inspected off the vehicle.

Evidence of Technical Inspection will be shown by the display of a current chassis/frame sticker on the vehicle, and the appropriate notation in the Vehicle Log Book. One or two days will be scheduled annually in each Division when inspections will be carried out, or special arrangements may be made for a fee, through the relevant Division Director. All vehicles without a continuous Technical Inspection history must undergo inspection as a new vehicle.

Failure to observe this rule is grounds for instant disqualification.

## **6.64 Warm Up Procedure**

Any time the engine of a vehicle is started, whether in the pits, staging lanes, or elsewhere, a competent Driver/Rider must be at the controls. When the drive wheels of a vehicle are raised and the engine is running, the vehicle must be adequately supported by jack stands. Refer Jack / Safety Stands.

## **6.65 Driver**

Vehicles participating in drag racing events must be presentable at all times. Those that are considered improperly prepared may be rejected by the organisers. The appearance of personnel attending competing vehicles is equally important, and should be subject to the same consideration.

## **6.66 Arm Restraints**

Arm restraints, attached to the forearms and adjusted so that the driver's arms cannot extend beyond the confines of the roll cage and shoulder hoop, are mandatory in all funny car and open cars, and may be used in place of window nets in sedans.

## **6.67 Credentials**

Each Driver/Rider of a vehicle entered in any Event conducted under an ANDRA Event Permit must hold the necessary Licences, Log Books or Membership as specified in these rules. Proof of ownership (registration papers, etc.) or the owner's written permission to enter the vehicle, may be requested. All competitors except those issued with Junior Competition Licences must also have proof of having passed a civil drivers licence test. All credentials are subject to inspection during Event Scrutineering or to spot check by ANDRA Stewards.

## **6.68 Driver/Rider Conduct**

Any Driver/Rider displaying unsafe driving practices or refusing to voluntarily reduce speed or stop in the event of a vehicle not handling properly, renders themselves liable to disqualification and possible Tribunal action and possible suspension of competition privileges.

Any Driver/Rider or Crew member returning a measurable breath alcohol reading when tested with the ANDRA Breath Testing equipment or found to be under the influence of prohibited drugs regardless of the amount, will be ejected from the event and may incur suspension and/or revocation of competition privileges. ANDRA reserves the right to subject any competitor, listed crew member, official or any other person granted access to Restricted Areas, to testing procedures approved by ANDRA, intended to detect the use of prohibited substances at ANDRA events. Refer ANDRA Substance Abuse Policy (Section 6). A list of prohibited substances will be published by ANDRA from time to time.

NB: Competitors are advised to seek formal medical advice where any doubt exists.

## **6.69 Driver/Rider Substitution**

The Driver of any vehicle may be substituted at any time prior to the close of scrutineering, providing the relief driver is credentialed for the vehicle, the Meeting Director, ANDRA Officials and the ANDRA Stewards are notified of the change in advance, the correct ANDRA Competition Number is displayed, and an additional entry fee, is paid. All prior qualifying performances for the vehicle will be disallowed.

## **6.70 Goggles / Visors**

Windproof, shatterproof goggles or visors must be worn by all drivers of vehicles without windscreens of Australian Standard ASZ7/67. Fire resistant goggles and/or face mask material are mandatory for supercharged or nitro burning cars and are highly recommended in other vehicles.

## **6.71 Head Protector**

In any car where a roll bar or cage is installed, a padded head protector must be provided at the back of the driver's helmet, and constructed to prevent whiplash. Roll bars or cages must be padded wherever the driver's helmet or body may make contact.

## **6.72 Helmets**

The wearing of a protective helmet is compulsory for all competitors at all times during racing, eliminations, time trials or practices. Each helmet must comply with the relevant standard for the level of competition.

All helmets used in any competition within these regulations will be checked for compliance with the relevant standard, and general condition. Helmets are inspected as an essential part of the vehicle's safety equipment.

Helmet straps must be worn beneath the chin. Chin guards or other devices which prevent the proper location of helmet straps are prohibited.

The helmet of any competitor involved in any accident, collision or upset must be surrendered to the ANDRA Chief Steward or his agent at the event for inspection.

Painting of helmets will be accepted providing the manufacturers instructions are strictly adhered to, the onus of proof lies with the competitor.

Repaired helmets, or helmets altered in construction will not be accepted.

Communication devices added to a helmet should be approved as part of the original helmet certification. Any subsequent additions or modifications to facilitate communication may invalidate the helmet certification.

- Nostalgia Fuel, Exhibition Cars, funny car and sedans quicker than 8.99 seconds (1/4 mile)/5.70 seconds (1/8 mile): SNELL SA90, SA95, SA2000, SFI 31.2 (or later) full face helmet required. Where it can be established that a face mask or respirator is necessary, such as in funny cars or methanol burning sedans, an open face helmet meeting the relevant Snell standard for the class/performance will be accepted, although full face helmets with built in respirators are highly recommended.

- All other dragster, altered and motorcycles quicker than 9.99 seconds (1/4 mile)/6.50 seconds (1/8 mile):

SNELL M90, M95, M2000, SFI 41.2 (or later), SNELL SA90, SA95, SA2000, SFI 31.2 (or later) full face helmet required. Where it can be established that a face mask or respirator is necessary, such as in funny cars or methanol burning sedans, an open face helmet meeting the relevant Snell standard for the class/performance will be accepted, although full face helmets with built in respirators are highly recommended.

- All other sedans slower than 8.99 seconds (1/4 mile)/5.70 seconds (1/8 mile) and driver or rider of vehicles not previously covered must use a full face helmet meeting one of the following standards. All other vehicles slower than 10.99seconds (1/4 mile)/7.00 seconds (1/8 mile) may use any helmet meeting one of the following standards:

SNELL SA 90, SA 95, SA 2000 SFI 31.2 (US) SNELL M 90, M 95, M 2000 SFI 41.2 (US) BS 6658-85 Type A (British) SNELL 1990/1995/2000 - SFI 31.1 (US) BS 6658-85 Type A/FR (British) AS 1698 1974/1988 (Australian)

### **6.73 Occupants**

No more than one person is permitted in any vehicle during its participation in qualifying or elimination runs.

### **6.74 Protective Clothing**

The wearing of protective clothing is compulsory at all times during racing, eliminations, time trials or practice. One or two piece driving suits are acceptable in all levels of competition. Minimum protective clothing requirements for each type of vehicle are listed below. Classification is assessed by the highest class shown in the vehicle Log Book.

Funny Car (Alcohol and Nitro), any supercharged vehicle with an enclosed fibreglass or composite body running quicker than 8.99(1/4 mile), Nostalgia Fuel and designated Exhibition vehicles require:

- Driving suit meeting SFI-3.2A/20.

- Fire resistant gloves and boots, meeting SFI 3.3/15.

- Balaclava meeting FIA Norme 1986 or FIA Norme 8856-2000 (ISO 6940) or SFI 3.3 (not required where helmet is manufactured with a skirt, labelled as meeting SFI 3.3).

- Supportive neck collar produced for racing use.

Junior Fuel vehicles:

- Driving suit that meets SFI-3.2A/15 as a minimum.
- Fire resistant gloves, boots and balaclava meeting FIA Norme 1986 or FIA Norme 8856-2000 (ISO 6940) or SFI 3.3. (Balaclava not required where helmet is manufactured with a skirt, labelled as meeting SFI 3.3).
- Supportive neck collar produced for racing use is required.

All other Competition and Modified (supercharged), any supercharged sedan requiring a Technical Inspection and any supercharged vehicle with an enclosed fibreglass or composite body running slower than 8.99(1/4 mile) require:

- A driving suit meeting SFI 3.2A/5 or higher, or FIA Norme 1986 or FIA Norme 8856-2000.
- Fire resistant gloves, boots, socks and underwear meeting FIA Norme 1986 or FIA Norme 8856-2000 (ISO 6940) or SFI 3.3.
- Supportive neck collar - all cars quicker than 7.50 seconds (1/4 mile)/4.90 seconds (1/8 mile) only.

Slingshot and (naturally aspirated), sedans quicker than 10.99 (1/4 mile)/7.00 (1/8 mile), and all vehicles with fabricated firewalls/front floors and those with non factory windcreens require:

- A driving suit meeting SFI 3.2A/5 or higher, or FIA Norme 1986 or FIA Norme 8856-2000, or a driving suit manufactured from Wool or Nomex as a minimum.
- Fire resistant gloves, shoes and socks.
- Supportive neck collar - all cars quicker than 7.50 seconds (1/4 mile)/4.90 seconds (1/8 mile) only.

Sedans slower than 10.99 (1/4 mile)/7.00 (1/8 mile) require:

Long sleeved upper garment, full length trousers, shoes and socks as a minimum.

## **6.75 Safety Belts / Harnesses**

All belts must be in good condition, and securely fastened to the frame, or a suitably reinforced mounting point. Reinforcement must be a minimum of 75mm (3 inches) by 75mm (3 inches) by 3mm (1/8 inch).

Restraint systems should be fitted in the manner recommended by the manufacturer, using the hardware supplied.

Under no circumstances should bolts be inserted through belt webbing, and the webbing should not cross any surface sharper than a diameter of 10mm (3/8 inch). Protective plates are mandatory where belts wrap around a frame area exposed to abrasion, in the event of wheel loss.

Shoulder harness must be installed in such a manner that they will limit the travel of the driver's body both upward and forward. Shoulder straps mounted behind the driver must be above a line drawn downward from

the shoulder, at an angle of 40 degrees to the horizontal. Where the two shoulder straps join prior to a common mounting point, that junction shall be at least six inches behind the driver's neck.

All safety belts incorporating a lever type centre buckle that may be opened accidentally by the driver's movements, must be fitted with a quick release cover or flap to prevent the buckle from being accidentally released.

Sedans slower than 11.99 (1/4 mile)/7.70 (1/8 mile):

- Minimum of quick release, lap/sash (three-point) type required, complying with Australian Standard E35. and AS 2596.

Sedans quicker than 11.99 (1/4 mile) / 7.70 (1/8 mile) or faster than 110mph (176 kph):

- Minimum of four-point harness that complies at least with Australian Standard E35 and also AS 2596.

Sedans faster than 130mph (208 kph), Junior Fuel and Slingshot slower than 150mph (240 kph):

- Five-point harness required (incorporating crotch strap).

All Slingshot faster than 150mph (240 kph), all Exhibition, and Nostalgia Fuel:

- Centre-locking, five point inverted V type racing harness required. All cars with a known performance or class record of 200 mph (320 kph) or faster, must have seat belts fitted meeting SFI 16.1, with a minimum webbing width of 75mm (3 inches), no older than three years. Harnesses must be stamped by the manufacturer with either a production date, or an expiration/"use by" date.

## **6.76 Carbon Fibre**

The use of visible carbon fibre is prohibited in all categories.