



WORLD OF MOTORSPORT ZA

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NATIONAL MOTOR SPORT FEDERATION

WITH INTERNATIONAL FEDERATION AFFILIATION

2020

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2020- 2021 WOMZA MIDGETS CLASSES 8 VALVE / 16 VALVE / SUPER MIDGETS

INTRODUCTION:

Competitor age restriction general:

All classes except Junior Stock Rods – see class rule

- Minimum age 13 years old for club level entries only;
- Competitor's minimum age - 14 years old are permitted to enter this class at regional and national level with the approval of their promoter and local TC Representative.

Vehicle widths and lengths general:

- Reference to length and widths in the regulations shall be defined as, length, measure in the direction of, from the front of the vehicle to the back (includes bumpers) but excludes purpose built pipe bumpers and width being measured from left to right of the vehicle, (body work only), excludes any side pipe rails;

Anything not specifically mentioned or what is not written, is not permissible

SAFETY / TECHNICAL & CONSTRUCTION REGULATIONS

CLASS TECHNICAL REGULATIONS

GSM GENERAL SAFETY:

- Non-contact Racing as herewith defined;
- No deliberate contact, bumping, or shunting will be permitted.
- No dangerous lane changing will be permitted.
- When a competitor spins off he is not allowed to step on the gas (accelerator) to make a 360 turn to avoid a stall, dangerous maneuvers will not be allowed.
- When a competitor spins off he must remain standing until it is safe to rejoin the pack.

- Competitors that are unable to self-start after a spin out in the race will not be allowed to rejoin and must abort race.
- Ensure that all joints in construction are welded properly;
- Sump, gearbox and differential plugs are to be wired securely;
- It will be mandatory for the fitment of coil spring retainers, preventing the spring from falling free or getting dislodged. The retainer shall be constructed of a minimum of 2mm steel cable;

MSM MANDATORY SAFETY

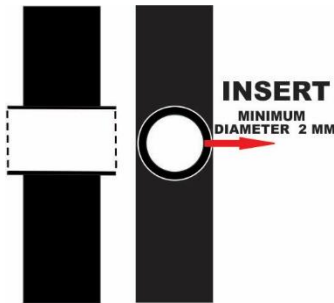
1.1 No drilling of holes into the roll cages [4 downpipes] will be allowed.

1.2 Metal plates may be welded onto the roll cage to receive body panels;

1.3 Panels may be pop rivetted or bolted onto the metal plate;

1.4 Pop rivet holes may be drilled into the rest of chassis to receive body panels; holes may not be closer than 150mm apart and may not exceed 5mm OD.

1.5 Holes bigger than 5mm must have a bush insert to install other components excluding safety belts.



	DESCRIPTION	MIDGETS		
		8 VALVE	16 VALVE	SUPER
GMTC1	<u>ELIGIBILITY OF VEHICLE AND BODIES:</u>			
	<u>BODY</u>			
1.1	Closed body panels are required on both front and rear sections;			
1.2	Body panels may be made of either fiberglass or sheet metal and should be constructed in an acceptable manner;		✓	
1.3	Side panels shall be fitted with a horizontal pipe fitted to the top completely visible when the competitor is strapped into his seat;		✓	
1.4	Engine must be enclosed by 50%.		✓	

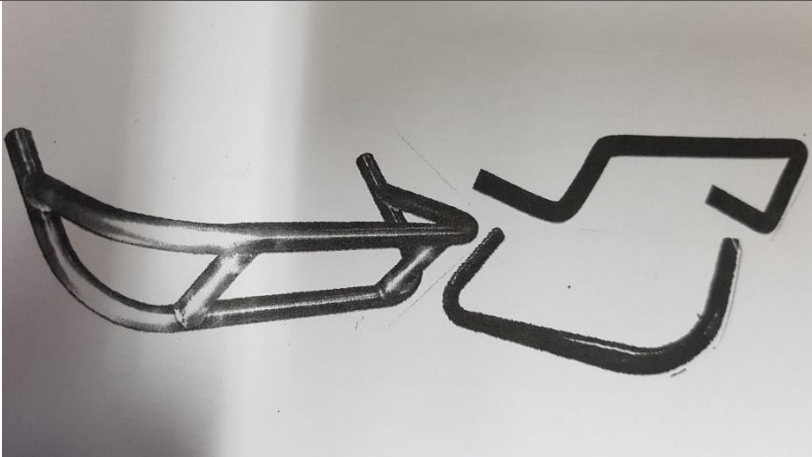
GMTC2	<u>FIRE WALL</u>			
2.1	Fire wall to be fitted behind competitor;			
2.2	All firewalls are to be constructed of metal only, plastic, fibreglass and rubber is not permitted;			
2.3	Fire walls will in all cases may not have any holes, other than where pipes are lead through with precise fitment;			
2.4	No open holes on firewall – front and back			
2.5	Concealed rear end firewall optional	✓		

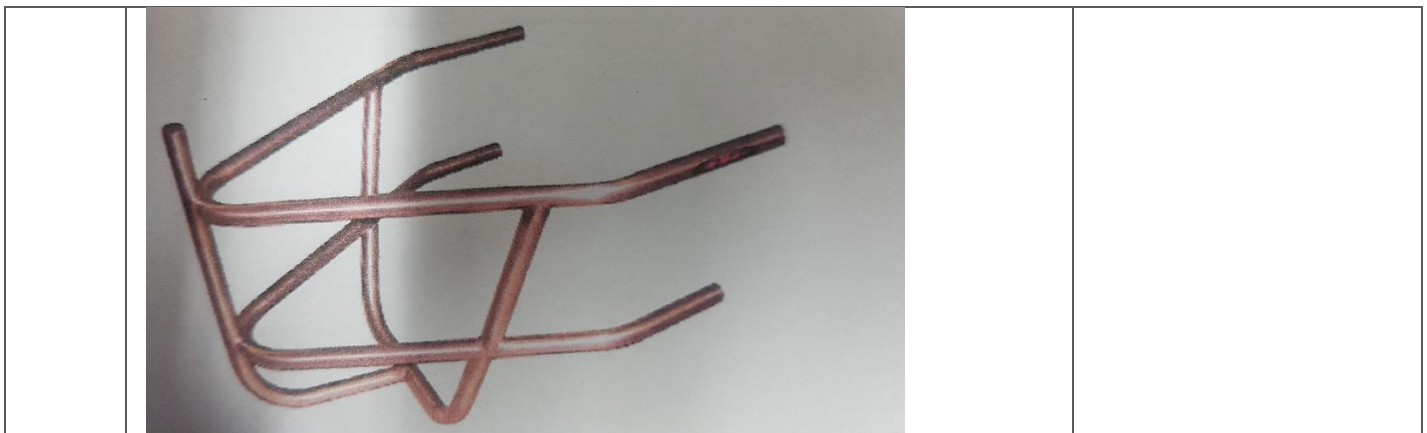
GMTC3	BODY CONSTRUCTION	
3.1	Engines mounted in front of the driver's compartment;	✓
3.2	The feet of the competitor may not protrude further forward than a line drawn across the vehicle, in line with the rear face of the engine block and parallel to the axles;	✓
3.3	Chrome Moly frames	✓

GMTC4	DIMENSIONS WEIGHTS	
4.1	The front track is defined as being measured from the hub face to hub face	✓
4.2	The measurement may not exceed 1500mm;	✓
4.3	The rear track is defined as being measured from hub face to hub face. The measurement must not exceed the wheel base measurement;	✓
4.4	The wheelbase shall not exceed 2100mm and may not be less than 1600mm;	✓
4.5	The maximum overall length is defined as being measured from the extreme front point to the extreme rear point of the vehicle and this measurement must not exceed 3300mm	✓
4.6	The minimum clearance of 50mm must exist between the driver's helmet and any part of the roll cage;	✓
4.7	The roll cage must be constructed of pipe with a minimum diameter 30mm with a minimum wall thickness of 2mm;	✓
4.8	Construction of pipe with chrome moly a minimum diameter of 32mm X 2.2mm;	✓
4.9	No limb or any part of the competitor's body may protrude;	✓
4.10	The roll cage must enclose the driver and consist of four down pipes and a minimum of two cross braces;	✓
4.11	Two nerf bars must be fitted to both sides of the vehicle;	✓
4.12	Nerf bars must be designed to protect the full width of the rear tyre of the vehicle – bar size maximum 30mm x 2mm;	
4.13	The nerf bars may have either three (3) or four (4) mounting positions;	✓
4.14	Nerf bars must be bolted on, using a minimum of 6mm and maximum 8mm bolts;	✓
4.15	The nerf bars must not protrude more than 50mm past any wheel neither may any wheel protrude more than 50mm past the nerf bar.	✓
4.16	It shall be optional for a cross bar (X) to be inserted above the competitors head;	✓
4.17	Weight – The vehicle can be weighed anytime and must comply to a minimum weight excluding driver, including fluids: –	550kg min 550kg min 450kg min
4.18	Ballasts, is a non-functional material added to increase vehicle weight.	✓
4.19	Any ballast must be permanently fixed to the structure of the vehicle by means of bolting, The strapping and wiring of ballast is prohibited	✓
4.20	All ballast must be clearly marked by a contrasting colour to the interior of the vehicle;	✓
4.21	No weight tolerances will be permitted;	✓

GMTC5	BRAKES	
5.1	Brakes are mandatory and must be operational on three (3) wheels;	✓
5.2	Minimum of three discs and calipers	✓
5.3	Two calipers on front axle and one on the rear axle ;	✓ ✓ Open
5.4	Brake adjusters permitted;	✓ ✓ Open
5.5	Must be foot operated;	✓

5.6	Must be hydraulic.	✓
5.7	Bike calipers and discs;	✓
5.8	Import calipers;	✓

GMTC6	<u>BUMPERS</u>	
6.1	<u>FRONT BUMPERS</u>	
6.1.1	Front bumpers are compulsory and must be constructed of single pipe with a minimum diameter of 22mm and maximum diameter of 32mm;	✓
6.1.2	The wall thickness shall not exceed 2mm;	✓
6.1.3	Alloy bumpers 38mm x 3mm; stainless steel 22mm x 2mm	✓
6.1.4	The bumper shall be between 350mm and 450mm from the ground;	✓
6.1.5	The shape of the front bumper is optional, but may not protrude beyond the width of the chassis at the front;	✓
6.1.6	The bumper shall also not protrude more than 250mm beyond a line drawn immediately in front of the two tyres. A tolerance of 50mm shall be permitted;	✓
6.1.7	Max two mounting points, vehicle with chassis that end behind the front axel may have a bumper with 4 mounting points.	✓
6.1.8	The fitment of 200mm coil over shock absorber protectors are permitted provided that they are constructed behind the line drawn between the two front tyres with no sharp edges protruding their ends shall be turned back to the chassis;	✓
		
6.2	<u>REAR BUMPERS</u>	
6.2.1	Rear bumpers/Push bars compulsory and to be constructed of tubular sections; maximum diameter of 30mm x 2mm or Alloy bumpers 38mm x 3mm and must consist of top and bottom tubular section; with max 4 mounting points.	✓
6.2.2	The mid bumper push bar height shall be between 250mm and 400mm above the ground the lower part of the push bar must be rounded inwards toward the frame in a manner to prevent hooking into a norther vehicle;	✓
6.2.3	The bumper push bar shall be designed in accordance with the body shape and shall not protrude more than 100mm from the nearest body component;	✓
6.2.4	The rear bumper push bar mounting points may not exceed the width of the chassis at the rear.	✓
6.2.5	The rear vertical element of the bumper shall mount to a solid point on the vehicle or the other vertical element	✓
6.2.6	The nose cone and tailpiece to be constructed to all safety measures;	✓



GMTC7 STEERING AND SUSPENSION				
7.1	Import Rose joints permitted	✓		
7.2	No steering racks permitted only steering box	✓	open	open
7.3	Solid front axle; Import axel permitted	✓	open	open
7.4	Only Solid rear axle		✓	
7.5	Torque tubes	✗	✗	✓
7.6	Steering mechanism shall be open, with the exception of, motorbike handle bars		✓	
7.7	Spring adjustments		✓	
7.8	Freely available over the counter shocks absorber e.g., Armstrong, Monroe, max trio, Gabriel shall be permitted, no competition shocks will be allowed – standard shocks only; no bump and rebound adjustment.	✓	✓	open
7.9	Gas shocks is permitted as per 7.8;	✓	✓	open
7.10	Motorcycle shocks		✗	
7.11	Maxtrax also available freely over the counter and they come with coil springs and adjuster are permitted. Freely available over the counter shock with coil spring adjustments for example Maxtrac, JOM	✓	✓	open
7.12	All coil springs to be strapped securely with cables or straps;		✓	
7.13	Coil over shock absorber permitted;	✓	✓	open
7.14	Radius and panard rods and Jacobs leathers – fixed (rose joints) type fixture.	✓	✓	open
7.15	Torsion bars	✗	✗	✓

GMTC8 EXHAUSTS:				
8.1.1	Exhausts and silencer boxes mandatory and must comply to prescribed noise levels;		✓	
8.1.2	Maximum decibels 108, measured 1metre away at 5000rpm;		✓	
8.1.3	Branches permitted		✓	
8.2	Exhaust Fitment			
8.2.1	All piping shall be secured with saddles, preventing exhaust pipes from coming loose in the event of it breaking off;		✓	
8.2.2	Exhaust system shall only pass through the back of the vehicle;		✓	
8.2.3	Tail pipes may face to the side of the vehicle;		✓	

GMTC9 FLYWHEELS				
9.1	Flywheels are permitted – direct driver couplers permitted	✓	✓	open
9.2	It shall be monetary for the flywheel to be covered completely, under no circumstance may the flywheel be visible from the outside, and material used to construct the cover has a minimum wall thickness of 2mm steel or		✓	

	aluminum			
9.3	Cast steel/iron, aluminum and metal fly wheels;		✓	
9.4	It is highly recommended that the use of steel or aluminum fly wheels are used;		✓	
9.5	When lightening fly wheels, keep the lightening limited for safety purposes;		✓	
9.6	Beams engine flywheel, mass flywheel may be changed to the solid flywheel as long as it originates from the same engine	✗	✓	✓

GMTC10	<u>FUEL</u>			
10.1	Pump fuel and avgas may be use. – highest octane being 95lpr (AVGAS)	✓	✓	Open
10.2	Performance enhancing additives permitted;		✓	
10.3	Methanol lubricants is permitted	✗	8 valve	✓
10.4	Methanol permitted	✗	8 valve	✓

GMTC11	<u>FUEL MANAGEMENT AND CARBURETION:</u>			
11.1	Aftermarket Fuel and ignition management system		✓	
11.2	Production car throttle bodies permitted, max inside dia per cylinder (measured in mm) (2.0L multi valve engine not permitted)	✗	45max	open
11.3	Only one aftermarket Throttle body max 65mm, measured at the butterfly on 8 valve units; Throttle body size on the Nissan SR20 VVL is 63mm; 20V motor 70mm; Toyota Beams 70mm measured at the Butterfly .	65max	As per specs	open
11.4	Jets and injectors sizes Open (Not on 2.0L multi valve units they must remain STD in 16valve class)	✓	✓	open
11.5	Side draughts (only 8 valve units)	45max	48max	open
11.6	Choke tubes It shall not exceed as stipulated if measured at any point across diameter;	38max	open	open
11.7	Ram Tubes permitted (only 8 valve units)	✓	✓	open
11.8	Air Cleaners are open		✓	
11.9	Slide Throttle Bodies	✗	✗	✗
11.10	Factory fitted fuel injection	✓	✓	open
11.11	Fuel pressure regulator		✓	
11.12	Utilizing down draft carburetors, will be limited to 45mm downdraft with maximum 38mm choke tubes – maximum two carburetors;	✓	8 valve	open
11.13	Two parallel springs on carburetor or throttle unless it have two original springs as original design		✓	

2.0 L 8 VALVE MIDGETS CLASS

GMTC12	<u>ENGINE</u>
12.1	<u>ENGINE</u>
12.1.1	Inline (Any)four cylinder, 8 valve motor with a maximum capacity of 2100cc with no tolerance.
12.1.2	There must have been 500 units sold in South Africa;
12.1.3	No rotary engines permitted;
12.1.4	No turbo or superchargers or any form of forced induction is permitted;
12.1.5	No motorcycle engines permitted
12.1.6	The cylinder head used shall only have two valves per cylinder;
12.1.7	Any local cylinder head permitted; only single cam permitted;

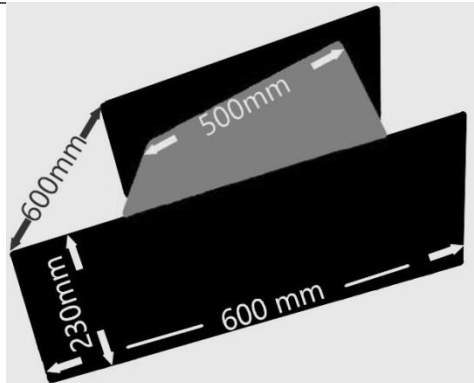
12.1.8	Intake manifold maybe altered to accommodate frame construction, but throttle body to remain standard but the specs must remain the same it may not be shorten or extended to form a venturi or a ram tube.
12.1.9	Engines are to be solid mounted/securely rubber mounted;
12.1.10	Any local piston permitted as long as 500 units were sold in SA;
12.1.11	No imported spares permitted;
12.1.12	Any cam permitted;
12.1.13	After market conrods permitted;
12.1.14	The use of a 1.9 TDI crank is permitted;
12.1.15	No restriction of lightening off, local parts;
12.1.16	No roller bearings on crack or cam shafts permitted;
12.1.17	Balancing of engine permitted;
12.1.18	No electrical water pumps;
12.1.19	Removal of alternators or charging systems is permitted;
12.1.20	Self starters optional;
12.1.21	Push start allowed, but pull started are prohibited;
12.1.22	Self starting vehicles may rejoin the race at any time (as long as they comply to the provisions of the race regulations);
<u>16 VALVE MIDGETS CLASS</u>	
12.2	<u>Due to the high stripping cost of the New Era Multi Valve Engines this class will have a kilowatt restriction according to the engine manufacturer of each individual make of engine with a maximum tolerance of 5 kilowatt.</u> <u>Engine:</u> <u>8 Valve units</u>
12.2.1	Technical specifications as per 2.0 L 8 VALVE class regulations as per 12.1
	<u>16 Valve Standard Unit:</u>
12.2.2	Limited to a maximum of 2000cc plus 60thou;
12.2.3	Standard bore plus 60thou oversize for multi valve units;
12.2.4	No Methanol fuel permitted in the Multi Valve units;
12.2.5	Only original camshafts and fuel injectors permitted.
12.2.6	Pulleys can be replaced by steel or aluminum.
12.2.6.1	Aftermarket or self-manufactured timing chain tensioners allowed
12.2.7	Competition\performance crankshaft, piston, conrods not permitted.
12.2.8	Internal replacement parts (pistons,conrods,crank, valve,ect.) must originate from the original manufacturer or aftermarket replicates.NO <u>COMPETITION</u> PARTS ALLOWED
12.2.9	Intake manifold maybe altered to accommodate frame construction, but throttle body to remain standard but the specs must remain the same it may not be shorten or extended to form a venturi or a ram tube.
12.2.10	No turbo or superchargers or any form of forced induction is permitted;
12.2.11	No motorcycle engines permitted
12.2.12	Removal of alternators or charging systems is permitted;
12.2.13	Self-starter optional;
12.2.14	Only the original standard throttle body from the same manufacturer may be used.
<u>SUPER MIDGET MIDGETS CLASS</u>	
12.3	<u>ENGINE:</u> <u>8 Valve units</u>
12.3.1	Limited to a maximum of 2750cc, no tolerance;
12.3.2	Carburetion is free;
12.3.3	No motorcycle engines permitted

	<u>8 Valve with Turbo Chargers:</u>
12.3.4	Limited to 2200cc, plus 60 thou;
12.3.5	Carburation is free;
12.3.6	No motorcycle engines permitted
	<u>Multi Valve Units:</u>
12.3.7	Limited to a maximum of 2450cc no tolerance;
12.3.8	Carburation is free;
12.3.9	No motorcycle engines permitted
	<u>Multi Valve Units with Turbo:</u>
12.3.10	Limited to a maximum of 2000cc
12.3.11	Standard bore plus 60thouh oversize for multivalve engines of 12valve, 16valve and 20 valve;
12.3.12	Carburetion is free;
12.3.13	No motorcycle engines permitted
	<u>Rotary Units and Rotary Turbo Units:</u>
12.3.14	Limited to twin rotor engines, without turbo, any porting;
12.3.15	Rotary Turbo unit, maximum bridge port allowed;
12.3.16	Carburetion is free;
12.3.17	All rotors shall be of ferrous metal – no aluminum/titanium permitted;
12.3.18	No roller bearing eccentric shafts permitted;
12.3.19	Turbo is limited to maximum T4;
12.3.20	Rotary twin turbo motor in stock form permitted;
12.3.21	Aftermarket intake and throttle bodies permitted;
12.3.22	Removal of alternators or charging systems is permitted;
12.3.23	No motorcycle engines permitted;
12.3.24	Self starter optional;

GMTC13	<u>TRANSMISSION</u>			
13.1	Standard type road going gearboxes;	✓	✓	open
13.2	Full gearbox no gears removed must be in original factory manufactured working condition;	✓	open	open
13.3	Straight cut gears and competition boxes;	✗	✗	open
13.4	Clutches;		✗	
13.5	Live axle differentials;		✓	
13.6	Gearboxes open;	✗	✓	✓
13.7	Quick change diff;	✗	✗	✓
13.8	Torque tube;	✗	✗	open
13.9	Torque Arm;		✓	
13.10	Chain driven assemblies are not permitted;		✗	
13.11	Propshaft protectors		✓	

GMTC14	<u>WHEELS AND TYRES</u>			
14.1.1	Double wheels;		✗	
14.1.2	Only locally available tyres from a general tyre dealer may be used;		✓	
14.1.3	The use of American racers or hooser tyres allowed on front wheels;		✓	
14.1.4	Tyres may not bear the inscription of “not for highway use” applicable on rear	✓	✓	open

	tyres;			
14.1.5	Under no circumstances may any names or sizes be buffed off from the tyre walls;	✓	✓	open
14.1.6	Rally tyres	✗	✗	✓
14.1.7	All tyres have to be presented at scrutineering;		✓	
14.1.8	The use of one Bead lock permitted, bead protector permitted on all rims.	✓	✓	open
14.1.9	Welded PCD centre section on rims.		✗	
	<u>Rear Wheels</u>			
14.2.1	Treaded local tyres:	✓	✓	open
14.2.2	13"- 15" tyres with a width 205 - Maximum	✓	✓	open
14.2.5	RETREAD TYRES		✗	
	<u>Front wheels</u>			
14.3.1	Competition tyres applicable to front tyres;		✓	
14.3.2	Locally available tyres from a general tyre dealer may be used; The use of American Racers or Hoosier tyres 225 x 10" x 13" allowed;		✓	

GMTC15	<u>WINGS:</u>			
15.1	The horizontal components of wing may not exceed 1300mm x 1300mm;		✓	
15.2	Wings may not be wider than the rear tyres		✓	
15.3	Wings must be bolted on and not welded into position;		✓	
15.4	All wings may be mounted with a minimum of 10mm bolts or retained by Rclips no less than 5mm.		✓	
15.5	The side component/end plates of a wing may not exceed 1700mm x 750mm;	✓	✓	open
	<u>Nose wing</u>			
15.6	The nose wing must not exceed a width of 600mm x 500mm(Length);		✓	
15.7	Nose wing end plates can be a maximum of 600mm x 230mm(height);		✓	
15.8				

TECHNICAL CONSTRUCTION REGULATIONS

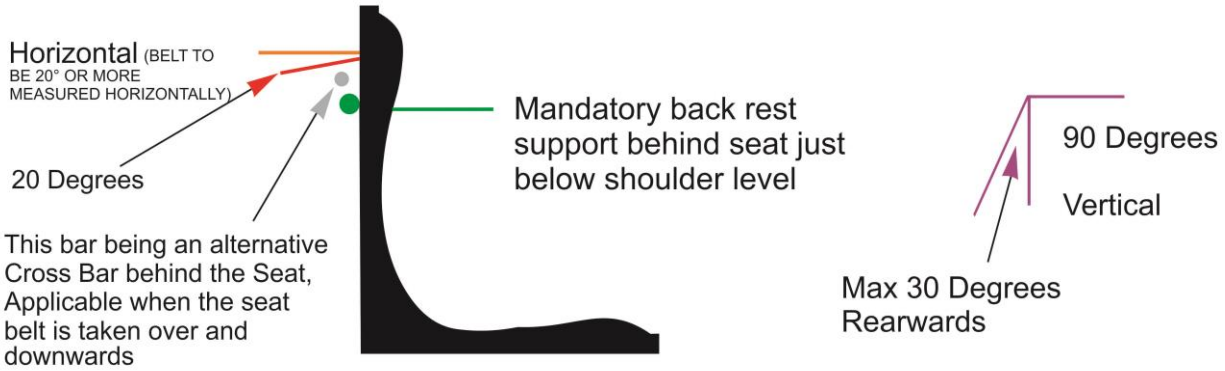
TCM1.	<u>PROTECTIVE CLOTHING</u>
1.1	Full fire-retardant race overalls are compulsory.
1.2	Minimum requirement is a Level 1, single layer race suit;
1.3	The composition of the suit even if small percentages are used may not be of a polyester, nylon or synthetic material;
1.4	Mechanic overalls will not be permitted;

1.5	Two-piece race suites not permissible;
1.6	No pushing up of sleeves permissible whilst racing;
1.7	Fire retardant gloves are compulsory;
1.8	Open fingertip gloves are not permitted;
1.9	It is mandatory for Competitors racing with methanol to wear balaclavas;
1.10	Neck braces/donut type shall be mandatory for all competitors under the age of 18;
1.11	All helmets will be in a good condition; it will be highly recommended that full face helmets are used for Oval Track Racing;
1.12	The only helmet that will be approved must bear the SABS or of a higher standard and a type that is suitable for highway usage;
1.13	The Scrutineer may condemn a helmet or confiscate a helmet until after a race meeting, if, the visor is cracked, the helmet has a visible crack and if the helmet straps are in any way sub-standard;
1.14	<u>Recommended washing instructions of race suites:</u>
1.14.1	No Bleaches, No fabric softeners, no machine washing, no tumble drying, no ironing – hand wash only and drip dried – this method preserves the agents within the fabric.
TMC2.	<u>SAFETY REGULATIONS</u>
2.1	All sump, gearbox and differential drain and filler plugs have to be drilled and wired;
2.2	Oil filters have to be clamped or strapped;
2.3	A radiator water catch tank of a minimum capacity of 1 liters shall be fitted to the cooling system;
2.4	A sealed radiator system will be exempted from the above regulation, for example Golf systems;
2.5	All joints and seams in the construction of the vehicle shall be properly mitered and be welded;
2.6	Methanol – it shall be mandatory that all methanol storage containers (Jerry can) be marked by a spray of paint or sticker, the letter M or in full Methanol, the colour to be used shall be red or orange;
2.7	All piping (brakes and fuel) and wiring must be installed above the floor board or chassis;
TCM3.	<u>BATTERIES</u>
3.1	It shall be mandatory for batteries to be bolted down;
3.2	Battery shall be bolted down by way of a cross bar or cross bracket;
3.3	Cross bar to be made of a flat bar with a minimum 5mm thickness; or
3.4	Square bar of 8mm x 8mm or round bar of a minimum 8mm in diameter;
3.5	The hold down bolts shall be a minimum of 8mm in diameter;
3.6	No side clamps or straps will be permitted to hold down the battery;
3.7	Batteries shall be covered by a nonconductive material to prevent short circuiting in the case of an accident;
3.8	The use of battery box compartment shall still require the battery to be bolted down inside the box, in all instances the cover of the battery box must be secured, by way strapping;
3.9	In all instance's batteries should be easily accessible for scrutineers to inspect;
TCM4.	<u>COMPETITION NUMBERS ON VEHICLES DISPLAYS</u>
4.1	Mandatory number placing on Wing Plates: -
4.2	Wing Plates – White Back, black number or Black back with mandatory white or Day Glo colour only -
4.3	Minimum size, 300mm height with a 50mm font stroke;
4.4	Competition prefix to be a minimum size of 120mm in height.
4.5	A clear block of 400mmx400mm must be kept on the wing side plates for the display of the competition number. No other advertisement allowed in the clear block.
4.6	Competition number to be displayed on the horizontal vane of the wing showing towards the outer side of track;
4.7	Competition numbers to be a minimum size of 300mm in height with a readable 50mm Font stroke;
	<u>GENERAL GRAPHICS AND/OR SIGN WRITING ON VEHICLES: -</u>
4.6.1	Only vinyl lettering or professional sign writing applications will be permitted;
4.6.2	Club Prefixes are mandatory to be displayed together with the number;
4.6.3	Advertisements/sponsors must not scramble the number of the vehicle;

4.6.4	Advertisements and slogans may not be of discriminatory manner;
4.6.5	Numbers 1, 2 and 3 will be reserved for WOMZA Final Championships only;
4.6.6	No longer may clubs use 1,2 or 3 for Club Champions or zero numbers;
4.6.7	No lights (LED) are permitted on the outside on the frame including wings.
4.6.8	No lights (LED) are permitted inside cockpit.
4.6.9	Lights (LED) are permitted on wheels and underneath of car ONLY.
TCM5.	<u>ENGINE POSITIONS:</u> As per GMT3.1
6.1	<u>FUEL TANKS AND FUEL PIPES:</u> It is highly recommended that properly designed and manufactured racing fuel tanks are used or bag type
6.2	fuel cells which reduces the risk of fuel spillage from accident damage; The wall thickness of metal fuel tanks shall be no less than 1mm;
6.3	A fuel tank breather, which shall vent externally, must be fitted to all fuel tanks.
6.4	A non-return valve shall be fitted to the breather.;
6.5	The non-return valve may not be airtight;
6.6	The fuel tank cap shall be the non-vented type;
6.7	Fuel tanks must be mounted in a separate compartment behind the competitor;
6.8	Fuel tanks must be securely mounted to the chassis of the vehicle with bolts or metal straps;
6.9	No fuel tank to be fitted above the battery and the battery to be covered with rubber on the top
6.10	A fire wall must be constructed to separate the competitor from the fuel tank and fuel pumps as well as
6.11	the filler and breather system;
6.12	The fuel lines must run above the floor;
6.13	The section of the fuel line running inside the vehicle past the competitor compartment must be of a steel material and may not have joints
TCM7.	<u>KILL SWITCH</u>
7.1	Vehicle shall have kill switches made of non-flammable material fitted;
7.2	Kill switches to be marked red;
7.3	The fitment of the kill switch fitted shall be within the competitors reach and his sight when strapped in;
7.4	External switch shall be situated outside of the vehicle for Officials to easily reach;
7.5	If the internal kill switch cannot be reach by an official easily, it shall be mandatory for an additional external kill switch to be fitted;
7.6	The effect of the Kill switches is to isolate the battery power from the rest of the vehicle and to shut the engine off with immediate effect, resulting in the break of the ignition and electric fuel pump circuits, simply said to cut all power and fuel supply simultaneously;
TCM8.	<u>OIL SAFETY CONTROL</u>
8.1	Oil filters are either to be clamped or strapped;
8.2	Sump, gearbox, axle's drain and filler plugs are to be drilled and wired;
8.3	An oil catch tank, with a minimum capacity of 1 litres, capable of accepting surplus oil and fumes from the engine shall be fitted in the engine compartment ;
8.4	The catch tank shall be connected to each breather outlet by means of a flexible pipe or similar conveyance, designed to feed the oil or fumes to the tank;
8.5	The catch tank is to be emptied between races;
TCM9.	<u>PROP SHAFT/DRIVE SHAFT/RUNNING GEAR PROTECTION</u>
9.1	<u>General Prop shaft protection hoops:</u>
9.1.1	Drivers must be protected from open running prop shafts by two steel bands, with a minimum width of 50 mm;
9.1.2	These bands shall at least be 5mm thick and be bolted or welded to the chassis;
9.1.3	These bands are to prevent a broken shaft from lifting and coming into the cockpit area;
9.1.4	The one band shall be a maximum of 150 mm behind the front yoke measured from the front of the prop shaft;

TCM10	<u>RADIATOR SAFETY CONTROL</u>
10.1	A water catch tank with a minimum capacity of 1litres shall be fitted to the cooling system, exempted will be sealed water systems;
10.2	Under no circumstances may a water catch container be replaced with a pipe allowing steam or water (overheating) being directed outwards;
10.3	All joints that are not flared shall be double clamped, flared pipes may have one clamp only;
10.4	All piping to and from the radiator, other than the joints and the overflow pipes shall be of steel or aluminum or copper;
10.5	The pipes must be mounted securely between the firewall and the radiator and at a height not higher than the sissy bar;
10.6	All joints are to be enclosed by a rubber sock and all hoses are to be double clamped;
10.7	Radiator shield protectors are mandatory with the following regulations applicable;
10.8	A fitment of a shield in lexan or Perspex shall be fitted to protect the competitor from a burst water pipe;
10.9	The shield could be made up in two designs namely:
10.10	A straight up shield covering and protecting the competitor in full whilst seated, this to be the full range of the radiator and competitor;
10.11	An upright shield with a hood covering the top of the radiator to form an airflow tunnel so not to restrict air intake, being the full width of the radiator, protecting the competitor whilst seated;
TCM11	<u>SAFETY/ROLL CAGES</u>
11.1	The safety cage known as a roll cage is a structural framework designed to prevent serious body shell deformation and bodily harm in the case of collision or a car turning over;
11.2	It is compulsory for all vehicles to have a fully constructed roll cage;
11.3	Great care must be taken that roll cages are constructed in the fashion, that in an event of an accident, no metal piping could break off causing bodily harm. The roll cage has to be designed so to protect the competitor;
11.4	The example shall be a mandatory minimum requirement but design can be different;
11.5	The "A" bar behind the driver seat shall be mounted flush directly behind the backrest of the seat in order to support the backrest.
11.6	This cross bar shall be just below the shoulder of the driver when seated;
11.7	Additional cross bars may be added to the cage;
11.8	Where the roll cage has lost strength due to bends, triangulated bracing to reinforce the cage would be necessary;
11.9	All welding points to be welded 100%
11.10	Round tubing shall have a minimum outside diameter of 32mm and a minimum wall thickness of 2mm;
11.11	A maximum of two 8mm inspection holes on the left hand and
11.12	Right hand side of the cage shall be made for easy inspection, a phasing in a period of two years for the removal of all holes (pop rivets) will be allowed.
11.13	By the year 2020 pop rivet holes that attached the body work to the frame will not be allowed additional tear plates of 2mm must be welded to the frame to accommodate the pop rivets no other holes except component fitments for example the tank, battery, seat will be allowed. (see attached diagram below)
11.14	Where the driver's helmets could meet the safety cage, a non-flammable padding should be provided for protection;
11.15	Sissy bars shall be fitted in such a manner that the competitor's hips and knees are completely protected when he/she is strapped into the seat.
11.16	The sissy bars should be constructed in such a manner that in an event of a T-bone incident the other vehicle would collide with the sissy bar;

<p>TCM12</p> <p>12.1</p> <p>12.2</p> <p>12.3</p> <p>12.4</p> <p>12.5</p> <p>12.5.1</p>	<p><u>SAFETY NETS / PROTECTOR PLATE – OPEN WHEEL</u></p> <p>The use of safety Nets are optional</p> <p>Fitment of safety net requirements:</p> <p>It shall cover the full window area from the rear of the driver’s seat to the front of the seat;</p> <p>The net shall be mounted to the roll cage above the driver’s head, with quick release clasps, which shall be fixed to the sissy bar, it follows that the net shall be released from the sissy bar;</p> <p><u>Protector Plates for open wheeled vehicles:</u></p> <p>It shall be mandatory for vehicles to have a protector plate to the right hand side enclosing the cockpit up to the height of the competitor’s shoulder when seated and not to obscure the competitors vision;</p>
<p>TCM13</p> <p>13.1</p> <p>13.2</p> <p>13.3</p> <p>13.4</p> <p>13.5</p> <p>13.6</p> <p>13.7</p> <p>13.8</p> <p>13.8.1</p> <p>13.9</p> <p>13.10</p>	<p><u>SEATS - RACE SEATS</u></p> <p>Race seat minimum specifications for oval track racing: Race seat shall have holes where seat belts can be let through, one on each side of the seat for lap belts and two on the back rest at shoulder height for the belts to exit to its mounting points;</p> <p>It is highly recommended to fit a FIA approved seat;</p> <p>Only bucket race seats permitted, no adjustable back rest reclining road car or race styled seats will be permitted;</p> <p>No fibre glass seats may be used;</p> <p>Seats are to be mounted with a support bar across the back.</p> <p>Aluminum seats permitted;</p> <p>Aluminum seat wall thickness – minimum of 2.5mm;</p> <p>Steel seats permitted;</p> <p>Steel seats wall thickness, minimum of 2.00mm;</p> <p>Steel framed seats permitted;</p> <p>Vehicles that have cracked/torn and broken seats shall automatically be excluded from the event, without any further negotiations;</p>
<p>TCM14</p> <p>14.1</p> <p>14.2</p> <p>14.3</p> <p>14.4</p> <p>14.5</p>	<p><u>SEAT BELTS</u></p> <p>Quick release seat belt and shoulder harness are mandatory;</p> <p>Seat belts must have a minimum of four points;</p> <p>No hand stitching or homemade alterations permitted to belts;</p> <p>Only SABS or International standard belts permitted;</p> <p>Safety belts and driver seats must be secured to the roll cage or frame (not to the floor pan);</p>
<p>TCM15</p> <p>15.1</p> <p>15.2</p> <p>15.3</p>	<p><u>FITMENT OF SEAT BELTS:</u></p> <p>The shoulder belt will exit through the backrest of the seat horizontally to the rear mounting point with a minimum of 20degree (measure from horizontal) downwards to the exit point</p> <p>The lap belts will exit through the side hole fitment of the seat, and form a vertical line to the mounting points with a maximum of 30degrees rearward;</p> <p>The crotch belt application – it shall exit though the seat downward vertical viewed from the side with a</p>

<p>15.4</p> <p>15.5</p> <p>15.6</p>	<p>maximum of 20degree rearward towards the mounting points; If the fitment of the shoulder belt cannot fit as above, the fitment of the shoulder belt may be taken down to the chassis, but must be supported with a crossbar behind the back rest of the seat at the same height of the seat belt exit holes for the crossbar to function as a support for the belt going down for the bar to take the downward pressure of the shoulder belt and not the seat back rest; Existing vehicles that have seat belts and seats mounted to the floor pan must be supported by 50mm x 50mm washers or 75mm x 2mm in diameter tear plate; See drawing for belt installation;</p>  <p>This bar being an alternative Cross Bar behind the Seat, Applicable when the seat belt is taken over and downwards</p>
<p>TCM16</p> <p>16.1</p> <p>16.2</p> <p>16.3</p> <p>16.4</p> <p>16.5</p> <p>16.6</p> <p>16.7</p> <p>16.8</p>	<p><u>WEIGHTS</u></p> <p>Vehicle which require to increase vehicle weights shall do so by fitting ballasts: Ballasts, is a non-functional material added to increase vehicle weight. Any ballast must be permanently fixed to the structure of the vehicle by means of bolting, wiring and strapping of ballasts is prohibited; All ballast must be clearly marked by a contrasting colour to the interior of the vehicle; Championship events – once vehicles have been weighed the Scrutineer shall have the right to wax seal ballasts; Fitted fire-extinguishers shall be removed or its weight reading shall be taken into consideration and be excluded for weighing purpose; No weight tolerances will be permitted; A vehicle may be weighed at any time during the event and remains the responsibility of the competitor to ensure the vehicle in which he is competing complies to the class weight regulation;</p>
<p>TCM17</p> <p>17.1</p> <p>17.2</p>	<p><u>WELDING</u></p> <p>All joints and seams in the construction of the vehicle are to be properly mitered and shall be welded. All visible welding shall be 100%.</p>