



2002 Rule Book

Washington
Midget Racing
Association



WASHINGTON MIDGET RACING ASSOCIATION

2002 BOARD OF DIRECTORS

President:	Rod Churchill	(425) 888-1751
Vice President:	Dick Voss	(253) 833-9645
Secretary:	Steve Barnett	(253) 878-2467
Treasurer:	Rick Kraft	(503) 632-4655
Board Members:	Brad Curtis	(425) 778-6705
	Bob Morris	(206) 842-6183
	Del Linder	(253) 531-5775
	Ken Ferris	(253) 964-2828
Business Manager:	Rick Kraft	(503) 632-4655

The rules and/or regulations set forth herein are designed to provide for the orderly conduct of racing events and to establish minimum acceptable requirements for such events. These rules shall govern the conduct of all events, and, by participating in these events, all participants are deemed to have complied with these rules. **NO EXPRESS OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATIONS OF OR COMPLIANCE WITH THESE RULES AND/OR REGULATIONS.** They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to a participant, spectator, or official.

The race director shall be empowered to permit minor deviations from any of the specifications herein or impose any further restrictions that in his opinion do not alter the minimum acceptable requirements. **NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM SUCH ALTERATION OF SPECIFICATIONS.** Any interpretations or deviations of these rules is left to the discretion of the officials. Their decision is final.

The Washington Midget Racing Association Board of Directors

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GENERAL RULES

1. MEMBERSHIP PARTICIPATION

a. All racers must pay dues before their 2nd race, if not paid, season points will not be awarded for the 1st race. A driver, who has competed in two events without payment of current dues, will not be allowed to participate.

b. Visiting owners and drivers from other midget associations will be allowed to participate in two sanctioned events before being required to join WMRA. There will be no points earned without being a member of WMRA.

c. Minimum driver age will be 16 years. Junior mechanics will be permitted at age 14 unless local track rules override this rule.

d. Payoff checks for car owners and drivers are subject to deduction of fines or other sums due WMRA.

2. DUES

\$50 per year for owners and drivers

\$20 per year for mechanics

\$20 per year for junior mechanics and associate members

3. ELIGIBLE VOTERS

a. Eligible voters for all rule changes and elections shall consist of all owners of WMRA registered cars or drivers who are WMRA members, who competed in at least 3 WMRA sanctioned races in the recently completed racing season or in the current racing season. There will be only one vote per eligible car. If no eligible voter is available to vote, another WMRA member may vote for them if the member submits to the board a written proxy signed by the eligible voter, at the time of the election.

b. All motions for rule changes must include the motioning members name.

c. Eligible voters for the Dave Smelser Sportsman Award and Best Appearing Car and Crew shall consist of the General membership.

4. ADMISSION TO PIT AREAS

- a. Pit passes are required for admittance to the pit area and must be presented upon request. Pit personnel determined to be with WMRA entering a WMRA event must sign in on a WMRA car number.
- b. Pit passes are not transferable.
- c. Cars and crews whose appearance detracts from the character of the program shall be excluded. A minimum fine of \$25 will be assessed for each infraction.
- d. The driver will be responsible for all pit persons. Anyone not signed in with a car shall pay immediately or be ejected.
- e. Individuals admitted to the pit area must comply with WMRA rules. Penalty for the second offense during the same program will be exclusion from pit area for the remainder of the day's events.

5. CANCELLATION OF PROGRAM

When a program is stopped on account of weather or other conditions over which the promoter has no control, the program will be considered complete if over 50% of the A-Main competitive laps have been run. This is for points only.

6. CAR NUMBERS

- a. The car numbers for WMRA members are limited to the whole numbers between 1 and 99 and number 00, with no letters or duplications permitted. Cars not adhering to this rule will not receive any WMRA season points. The numbers 1 through 10 are issued based upon the point standings of the previous year. The first 10 cars may use their earned numbers. Other participants wanting to use a number between 1 and 10 must obtain permission of the owner earning that number the prior year.
- b. The first 10 cars may use their earned numbers and retain their previous number for a period of one year.
- c. The numbers 11 through 99 and number 00 are issued on a "first come, first served" basis, except that to maintain a number used the previous year, dues must be paid by the stated deadline, the first meeting in March.
- d. If a car is sold, the number resides with the previous owner.
- e. Any car without a number will not receive points or money for the program.

f. All cars must be numbered on both sides of the tail in contrasting colors at least 2 inches wide and 12 inches high for each numeral. The number must also be displayed on the center or the right center of the nose in numbers at least 6 inches high.

g. Changing numbers to other than the assigned registered number will not be allowed.

7. INJURIES

Any driver deemed unfit to race due to the injury may be restricted from competition events by a WMRA official upon advice of attending medical personnel or until a doctor's release is presented.

8. PARTICIPATION OF OFFICIALS

No track official shall be connected with any car in active competition except with the approval of the Board of Directors.

9. ROOKIE OF THE YEAR

A driver is eligible to be considered for the Rookie of the Year award if the driver is a WMRA member and has competed in four or less previous WMRA sanctioned events.

RULES OF CONDUCT

1. COOPERATION WITH OFFICIALS

All pit crews, drivers and owners must cooperate with officials at all times to help put on a good show.

2. RESPONSIBILITY

a. The car owner and/or driver will be responsible for the conduct of all persons associated with that car.

b. Any person, with the exception of WMRA officials, who goes to the tower or flag stand will be assessed a fine of \$25 to be charged against the car owner or the car that person is associated with.

3. UNBECOMING CONDUCT

a. Any driver, car owner, or pitman, who at any time uses improper language to officials in charge of the races may be immediately reprimanded, expelled from the track, or be subjected to a fine. Unbecoming conduct in front of the audience will be cause of suspension and/or a minimum \$50 fine, to be paid in cash only.

b. Any driver, car owner, or pitman, who at any time shoves, jostles, strikes, or attempts to strike an official will be fined \$100 and suspended up to one year, dependent upon the decision of the Board of Trustees.

c. Any member found fighting in the pits or infield will be fined a minimum of **\$100** and/or suspended dependent upon the decision of the Board.

d. Any car or crew detracting from the appearance of the show, or anyone under the influence of alcohol or drugs, shall not be allowed to compete in the races be in or about the pit area. Drinking or drugs will not be tolerated in any manner and carries a \$50 fine and/or 30 day suspension dependent upon the decision of the Board.

e. If, in the opinion of an official, a car stops on the track unnecessarily, the car shall be disqualified from the remainder of the event.

4. PIT MEETING

A pit meeting will be held before the first competitive event. All drivers must attend the drivers meeting immediately after warm-ups or be fined. The meeting will also include discussion on:

- a. The designated restart area
- b. Changes in the standard program
- c. Any precautionary, safety, etc., items the race officials may want to expound on
- d. Passing flag rule

5. STANDARD PROGRAM

- a. When a shortage of cars occurs, or unfavorable track conditions prevail, the Referee and Pit Boss will have the authority to change the program to suit the occasion.
- b. In all main events, regardless of number of laps, the last three laps must be completed under the green flag unless circumstances such as track curfews or driver safety are in question. Driver safety shall be in the judgment of the Flagperson or a WMRA official.
- c. All dashes and heats will be totally inverted by qualifications. B Mains will run straight up by qualifications. The A Main invert will include the fastest eight, nine or ten qualifiers (based on a random drawing by the fastest qualifier).

6. WARM-UP LAPS

- a. No car can be fired until the driver is attired as specified in the Safety Rules Section #1, and the track officially opened. Anyone failing to comply will be fined \$25 for the first offense (second offense of the day, suspended for the day).
- b. Warm-up laps will be started approximately two hours before the start of the racing program or one hour before qualifying. There will be no hot lapping during the warm-up period.
- c. Hot laps will be permitted after warm-ups, usually in two separate groups after getting the green flag.
- d. After the start of the first event, all cars access the track for other than starting a given event must have permission of the Pit Boss.

7. QUALIFYING

- a. There will be two qualifying laps per car. A spin on any of the two qualifying laps will mean loss of that lap. If a car does not qualify, it will start at the back of the slow heat and the back of the slow main event.
- b. If there are two drivers for one car, one lap will be given per driver and only two laps per car.
- c. Numbers shall be drawn to determine qualifying positions at least one half hour prior to qualifications. Qualifying will usually be two laps in a row. Any car not able to qualify according to the qualifications draw will go to the rear of the lineup and lose one lap. After a car is presented for qualifications and is not started within two minutes, it must go to the rear of the lineup.

If it is not possible to run qualifications, the starting lineups for the heats will be determined by totaling the combined season points of the driver and car. The heat races will be run progressive with your finishing position in the heats determining your feature starting position. Should a driver without points finish high enough in the heat race, he will not start on the pole but at the end of the invert.

8. SPEEDING IN THE PITS

A \$25 minimum fine will be levied for excessive speed in the pits. A \$100 fine will be levied for the second infraction during the same season.

9. INEXPERIENCED DRIVERS

- a. All 1st time midget drivers must start in the rear of all events until approved by the Referee.
- b. Inexperienced drivers shall have an ID. mark or flag on the rear of the car.

10. SUBSTITUTE DRIVERS

- a. In case of one car with two or more drivers, each driver must qualify to earn points. The fastest qualifier will drive in the A-Main in his own earned positions; or, the substitute driver must start in the rear of the field.
- b. If other than fastest qualifier wishes to run the heat he qualified for, driver and car points to fastest earned heat only.
- c. A competitive event is an event other than qualifying.
- d. Sub-drivers must notify the Pit Boss before event or points will not be awarded for that event.
- e. In any given event, if there is more than one driver in any car, no driver or car points will be awarded.
- f. If for any reason, a driver change is made in any event, that car must start at the rear of the field.
- g. In the event a driver attempts to qualify two or more cars, only the time of the last car he drives will be used. The previously qualified car will be recorded as a non-qualifier.

11. VACANCY IN THE LINE UP

- a. In the event of a vacancy in the field, all cars will move up one position in the row the vacancy occurs.
- b. In the Trophy Dash - substitute starts on pole.

12. THE START

- a. The pole car sets a consistent pace for starts in all racing events, failure to comply will put you at the rear of the field.
- b. Only the first car stopping for repairs after being pushed off to start a race of ten laps or more will be given two minutes to get back into position. If, after the two minute period, the car gets started and the other cars have been repositioned, it must drop in at the rear of the line-up. **WORK WILL BE DONE ONLY IN THE RESTART AREA OR THE CAR WILL BE DISQUALIFIED. NO WORK IS TO BE DONE ON THE CAR WHILE ON RACE COURSE.**
- c. The restart area for the track in use will be designated by the Pit Boss in the pit meeting prior to the race.
- d. Anyone pulling out of line or jumping the flag before the green flag is dropped will be sent to the rear of the field or set back at the end of the event at the starter's discretion. One warning per race will be allowed.
- e. Any cars passing the front row cars during warm-up laps will start at the rear of the field.
- f. Any car weaving after given the one-lap-to-go-sign will be sent to the rear.

13. RESTARTS AND SPINOUTS

- a. If the yellow flag is displayed before the field completes the first lap, a complete restart shall be made with the exception that any cars not completing the first lap, or stopping, shall be placed at the rear of the field. The other cars will move forward in the lines, with no crisscrossing. If 3 or more cars are involved in an incident in turns 1 or 2 of the first lap, the race will be a complete restart, with all cars retaining their original starting positions. If a second restart is required, the cars will restart in single file. If the field completes the first lap under the green, the first lap shall be scored and any subsequent yellow flags shall result in the cars lining single file and the restart lineup determined by the last completed lap scored under the green. Any cars not completing the lap in which the yellow was displayed, shall be placed at the rear of the lineup.
- b. In events of ten (10) laps or less, there shall be no restarts after the first completed lap except in the event of a red flag. In the event of a red flag, all cars shall be restarted except those causing the red flag.
- c. In events greater than ten (10) laps, one restart will be allowed per car except in the event of a red flag. In the event of a red flag, all cars shall be restarted except those causing the red flag **and** having a previous restart.
- d. Any car weaving after given the one-lap-to-go-sign will be sent to the rear.

14. FLAGS

a. **GREEN** - Start of event. Any car taking the first green will be considered officially started and will be scored accordingly.

b. **YELLOW & RED (RESTART)** - No start, line up again.

c. **YELLOW** - Yellow flag means caution - maintain position, do not pass car in front of you. The driver of the lead car will hold the pace the Starter wants and the rest of the field will form a single line behind the lead car. The driver of any car that does not comply with the Starter's command while running under the yellow flag will be fined \$5 per lap. In all races the standings are the same as at the last completed green flag lap. In all races of 49 laps or less, yellow flag laps do not count.

d. **RED** - STOP IMMEDIATELY, WITH DUE CAUTION, OR BE SENT TO THE REAR. No work may be done on the car while on the race course during red flag. Car must be pushed to the designated work area, where it may be worked on during the red flag, and must be ready to fire when the rest of the pack is ready. You can then retain your position. If you are not ready you will start in the rear.

e. **WHITE** - Start of last lap.

f. **BLACK** - Pull off the race course with due caution IMMEDIATELY. Any car not maintaining a competitive speed or driving irregularly may be black flagged from the track. Car will not be scored if it does not stop after second lap. Any car liberating an excessive amount of oil or smoke will be subject to immediate removal from the track.

g. **CHECKERED** - End of event. Car must finish under its own power.

h. **BLUE/YELLOW** - Passing flag for cars to be lapped. Cars being passed should hold line.

i. **ANYONE FAILING TO COMPLY WITH ANY FLAG WILL NOT RECEIVE ANY POINTS OR MONEY FOR THE EVENT.**

15. FOUL DRIVING

- a. Deliberate spinning, hitting, excessively bumping another car is strictly forbidden and carries a black flag, a \$25 minimum fine, the loss of one lap and/or the loss of points for the event. This decision is rendered by the Referee. Any driver who intentionally cuts the pole will be penalized by the Referee who's decision will be final.

- b. Any driver or car owner competing in the program may protest any finishing positions, as determined by the lap scorers, by making a protest in writing and depositing \$25 with the Referee. If the protest is upheld, said deposit shall be refunded to the protester. In the case of a protest, the position involved will not be paid until the protest has been settled. Protests must be made within one half hour after the finishing positions are posted.

- c. Any car owner or driver competing in the program may protest a contestant's car by depositing \$250 and a signed request within one hour after the completion of the racing program. The engine will be sealed or painted and taken to a clean, adequate area for tear down. The area will be at the discretion of the Board. If the car is illegal, the money will be returned and the guilty car owner will forfeit all money and points for the race and may be fined, suspended, or both. If the car is legal, the \$250 will be paid to the owner of the car protested.

- d. Protests will be decided by the Board of Trustees within 6 calendar days after completion of the protested event. No Board meeting will be held on the telephone.

SAFETY RULES

WARNING: The following safety rules are to be used without warranty, expressed or implied. No warranty or representation is made as to these minimum requirements ability to protect the user from any injury or death. The user assumes all risk.

1. DRIVER'S EQUIPMENT

- a. Only approved racing helmets of minimum Snell SA90 rating may be used. M rated helmets are not allowed. SA95 recommended.
- b. Safety belts, over the shoulder harnesses, and submarine strap must be worn at all times and attached firmly to the frame of the car. Seat belts and shoulder harnesses must be three inches wide and submarine harnesses two inches wide. It is mandatory the belts are not over 3 years old.
- c. The driver must wear a fire-retardant race type uniform, minimum 2 ply, covering the full arm and leg areas, and arm restraints. Nomex, fire retardant gloves and underwear are required. Head hoods are required. **Head and neck restraints of an approved type are required.** (See Rules of Conduct Section #6.a.)

2. PHYSICAL CONDITION

- a. Drivers must have a physical examination only when requested by the Board of Directors.
- b. It is recommended that all drivers remove dentures before starting an event for safety reasons.
- c. Corrective lenses worn by drivers must be of a safety type glass.

NOTE: Contact lenses are not advised, due to dust and foreign material in the air.

3. TRACK SAFETY

- a. Always make a mental note of where the ambulance, fire extinguishers and exits are located at any track.
- b. Running onto the speedway during a race or immediately after the flag has ended an event is strictly prohibited and is subject to a fine or suspension.
- c. In the case of an accident on the track, only appointed safety crew, medical personnel and persons with cars involved will be allowed on the track.
- d. Car owners and drivers are responsible for their crew.
- e. Every entrant must have in his possession in the pit area a fully charged dry powder fire extinguisher of minimum two pound capacity, rated UL3A-40-BC. There will be a \$10 fine for violation of this rule.

CAR SPECIFICATIONS

1. ENGINE SPECIFICATIONS

All changes to engine specifications must be made by December 1 to affect the next racing season.

2. 2001 ENGINE SPECIFICATIONS

a. These engine specifications shall remain in effect through the conclusion of the 2001 racing season.

b. Four cylinder inline, two valves per cylinder, water cooled iron block and head with intake and exhaust ports on the same side of the head -Maximum 184 CID (3016 cc).

(1) Same as above except utilizing a “cross flow” cylinder head -Maximum 174 CID (2852 cc).

c. Four cylinder inline, two valves per cylinder, water cooled utilizing an aluminum block and/or head - Maximum 166 CID (2721 cc).

d. Four cylinder horizontally opposed, two valves per cylinder, intake and exhaust valves must be in line and on the same axis - Maximum 166 CID (2721 cc).

e. Maximum of six cylinders, V-type (maximum 90 degrees), two valves inline per cylinder, water cooled, iron block and head - Maximum 174 CID (2852 cc).

(1) Same as above, except utilizing an aluminum block and/or head -Maximum 166 CID (2721 cc).

f. Single Overhead Camshaft Type Engines:

Maximum of six cylinders in line or V-type (maximum 90 degrees), water cooled two valves per cylinder - Maximum 155 CID.

g. Double Overhead Camshaft Type Engines:

(1) Four cylinder inline water cooled, maximum of four valves per cylinder - Maximum 133 CID (2180 cc).

(2) Maximum of eight cylinders, inline or V-type (90 degree maximum) two valves per cylinder air cooled - Maximum 128 CID (2098 cc).

h. Motorcycle engines. Maximum of four cylinders, incline, two valves per cylinder, air cooled, turbo charged - Maximum 90 CID (1475 cc.). Turned 90 degrees.

i. Complete engines and/or major components must be available in a reasonably sufficient supply to all competitors at comparative prices.

j. All engines must be normally aspirated internal combustion, four cycle, reciprocating piston type, except as identified in rule 2.h. Ram type air scoops facing forward are not permitted.

k. Any OEM engine installed in a vehicle on a production line with original type cylinder head/block/crankshaft assembly mated at time of production. No after-market crankshafts.

Maximum displacement:

(a) DOHC	4 valves/cyl	153 cid
(b) SOHC	2 valves/cyl	183 cid
(c) OHV	2 valves/cyl	200 cid

l. The preceding engine sizes are maximum permitted. No clean up allowed.

NOTE: Any engine not named in the specifications must be submitted to and approved by the Board of Directors prior to running.

.e. Wheels will be a minimum of 12 inches in diameter and a maximum of 13 inches. All cars are permitted to run 12 inch wide wheels.

f. Tires for all pavement races will be as follows:

(1) All tires will be Hoosier

(2) Tires for the 2002 season:

Front	7/20.5-13	65"	MG 6, 7, 8
Left Rear	9/22.0-13	69"	MG5
	10/22.0-13	68.5"-69"	MG 5
	10/22.5-13	70"	MG5
	10/23.0-13	72"	MG5, 6
	10/23.5-13	72"	MG5, 6
Right Rear	12/23.5-13	74"	2080
	12/23.5-13	74"	MG6 (Air cooled, normally aspirated motors)

(3) For dirt races, an approved bead lock is recommended on the right rear.

(4) Any solvents or chemicals applied to the tire that have the affect of altering tire durometer will not be allowed.

(5) If for any reason a car changes any tire during any event, that car will start at the rear of the field.

(6) A maximum of one new or used right rear tire will be allowed per car per WMRA sanctioned event that car participates. The first WMRA sanctioned event that a car participates, two new or used right rear tires will be allowed. A car has participated in an event if the car has qualified. Right rear tires will be registered with WMRA officials. If the event is rained out before completion of qualifying, the registered tire for that event will carry over to the next WMRA sanctioned event that car participates in. Only registered right rear tires will be allowed in qualifying and competitive races. Exceptions to this rule will be at the discretion of the officials.

2000 USAC OFFICIAL COMPETITION RULES

403 Car Size and Weight

- A.** The wheelbase must be at least 66 inches and no more than 76 inches.
- B.** The overall width will be a maximum of 65 inches.
- C. FOR ALL EVENTS** The maximum width of the right rear tire shall be 14 and one-half (14.5) inches. The maximum width of the remaining tires shall be twelve (12) inches. All measurements shall be made side wall to side wall, race ready.
- D. FOR PAVED EVENTS ONLY** The maximum rear wheel offset, from center, is three inches (six inches overall) measured from the inside bead seat to the centerline of the rear end center section. Front wheel offset is limited to a maximum of 5-1/2 (11 inches overall) as measured from the inside bead seats to the centerline of the chassis. The right front tire cannot be farther out than the right rear tire when the right rear wheel is set at maximum offset.
- E.** All cars must weigh 900 lb, including water, oil and fuel, but without the driver. Cars may be weighed prior to and/or following any event. Cars weighed at the completion of any event may not add fuel or ballast to satisfy the minimum weight requirement. Bolt-on weights are not allowed.
- NOTE: Cars powered by four cylinder horizontally opposed, two valves per cylinder, intake and exhaust valves, in-line and on the same axis, must weigh 850 lb..

404 Car Construction

- A.** All cars shall be rear drive only. Engine offset is limited to a maximum of one (1) inch, (two inches overall), from the chassis centerline as measured at the centerline of the crankshaft. Engine inclination is limited to 45 degrees from vertical as measured from the vertical centerline of the cylinder bore. V type engines are limited to 45 degrees inclination from vertical as measured from the centerline of the cylinder bore. Only torque tube type drivelines, utilizing only one u-joint, will be allowed. The driver shall be seated directly behind the engine and on the centerline of the chassis. Radius rods may not be attached within the confines of the cockpit.
- B.** The cockpit must be located directly behind the engine compartment. The cockpit opening must be at least five hundred (500) square inches measured on a plane parallel to the ground and level with the uppermost part of the body or windscreen.
- C.** All body panels must be readily removable. Body panels rigidly attached to the frame, to prevent chassis flex, will not be permitted. The car's body work must be on the centerline of the chassis.

D. The nose assembly may not be wider than parallel lines of the body and may not exceed the width of the frame. The nose may not extend forward beyond the confines of the front bumper.

E. The engine must be covered with a cowling or hood secured in place. The sides of the engine compartment need not be enclosed. Vertical spill plates may be used on the outer edges of the hood assembly and will be limited to one (1) inch in height. The outside dimensions of these spill plates may be no wider than the main frame of the car. The sides of the frame must be covered from the firewall to the leading edge of the seat. Forward facing scoops, or ducting, supplying forced air induction to the engine are not permitted.

F. Right side cockpit panels may be a maximum of 33-1/2 inches high as measured from the top of the bottom frame tube at the motor plate and projected rearward. Left side cockpit panels may be a maximum of 20-1/2 in. high as measured from the top of the bottom frame tube at the motor plate and projected rearward. Any hood or cowl panels higher than 33-1/2 in. on the right side and 20-1/2 in. on the left side may not extend rearward past a point 24 in. forward of the rear vertical (or most forward) roll cage tube.

Side panels cannot extend rearward past the rear diagonal roll cage tube/brace. Single panel sail panels between the rear cage upright and brace are allowed.

G. All cars must have a floorboard or bellypan, utilizing aluminum or equivalent alloy, extending from in front of the engine to behind the leading edge of the seat. The cockpit floor or bellypan must be bolted to the chassis. The bellypan may not extend rearward past the leading edge of the rear axle. The underpan or car bottom must be flat and no tunnel structures, spill plates, skirts or horizontal panels may be extended from the bottom of the underpan of the car or fuel tank contours. For pavement races it is recommended that a fireproof adsorbent pad be used under the engine.

H. Sun visors are limited to five (5) inches in length from top to bottom including any tabs, extensions, etc. and may not be wider than the width of the cage. Sun visors cannot extend above the cage.

Panels may be attached to the inside of the nerf bars providing they are parallel to the centerline of the chassis, perpendicular to the ground and not lower than the bottom frame tube. These panels must be securely bolted within the confines of the nerf bar on all sides and not be more than 10 inches in height and 36 inches in length. Any loose or damaged panels during an event could subject the car to a black flag penalty.

I. Airfoils, wings, spoilers or other aerodynamic appendages will not be permitted. The Chief Steward or Technical Director may have any panel or part removed which in their opinion is not within the spirit or intent of this rule.

J. With the exception of suspension components, induction and/or exhaust systems and nerf bars, no accessory or component of the car may extend more than 6 in. from the main frame tubes. Cylindrical oil tanks mounted outside the frame, behind the engine must be mounted as close to the frame as practical.

K. Rear view mirrors are not permitted.

405 Roll Cage

A. All cars must have a roll cage which is integral with the frame and does not encroach upon an imaginary cylinder, 20 inches in diameter, extending through the top cockpit opening. The roll cage must be adequately braced fore and aft, and side to side, to secure it in an upright position in case of rollover. The roll cage should extend four inches above the drivers helmet when he/she is seated in the driving position.

B. Roll Cage Construction

1. Cars constructed prior to 1/1/95

SAE 4130 seamless tubing, minimum O.D. 1-1/4

2. Cars constructed after to 1/1/95

SAE 4130 seamless tubing, minimum O.D. 1-3/8; minimum wall thickness .095

3. Cars constructed after to 1/1/97

Tubular gussets must be attached a minimum of 2 inches from the centerline of the angle being gusseted. Gusset material must be a minimum of 1-1/16 inch O.D. x .095 wall thickness or 7/8 inches O.D. x .065 wall thickness.

4. Cars constructed after 1/1/98

Main uprights forming the roll cage must be a minimum of 1-3/8 inches O.D. x .095 wall thickness.

C. No water or oil coolers are to be placed above or beside the cockpit opening.

406 Fuel System

A. A conventional tail tank, fuel cell and the fuel contained must be carried on the centerline of the chassis and be located behind the driver. The conventional tail tank shape cannot be modified and must be of one piece construction. Any tail tank surface which is modified to provide access for the fuel cell must, when covering this opening, maintain the same shape as the original tank. Any cover used must be securely bolted around its entire perimeter. No spill plates, skirts or air deflectors may be attached or used to aerodynamically enhance the tail tank. The tail tank must be constructed and supported in a manner that will insure every precaution has been taken to avoid rupture or breakage. Tail tanks may not be made from aluminum, carbon fiber or carbon/Kevlar material. The minimum capacity of the tank must be 18 US gallons.

B. Fuel tanks may not be mounted to the chassis utilizing any portion of the access plates or the nut plates bonded into the fuel bladder. All access covers must be made of material equal to or greater than 2024 T4 aluminum .1875 inch thickness.

C. It is highly recommended that the fuel tank have an adequate supporting structure under the forward section of the lowest portion of the tank. This structure should follow the contour of the tank and be welded or securely attached to the frame of the car on each side.

D. When mounting the fuel tank to the chassis, all mounting points must have inner and outer plates attached to the shell. These plates must be of adequate size to insure the tank being secure to the chassis. All tanks must have a minimum of four mounts to the chassis.

E. A flush-type cap is mandatory for all exposed fuel caps. The top access cover must be installed in direct contact with the fuel cell.

F. The tank vent must have a check valve.

G.WMRA Substitution: Fuel systems must have a shutoff valve placed within easy reach of the driver and it is mandatory that this valve be clearly labeled. It is recommended that the valve be accessible from the outside of the car. A fuel shutoff valve is also required to be located by the fuel cell and behind the rear axle.

H.All cars must be equipped with a fuel cell and tail tank meeting USAC and SFI specifications.

407 Firewall

An effective firewall of metal at least .0625 inch thick or other approved fire retardent material must be installed between the engine compartment and the cockpit. It must be as leak-proof as practical. The motor plate may not be made from carbon fiber, honeycomb, or other composite materials.

408 Revolving Parts

All revolving parts inside the cockpit must be shielded by a suitable guard.

409 Bumpers

A.The car must be equipped with a rear bumper securely fastened to the structural components of the car and designed without any stubs pointing downward.

B.The bumper should follow the contour of the tail and have adequate clearance to permit moving the car by the bumper. The bumper must be squared to the rear.

C. The bumper must be constructed of SAE 4130 steel tubing with a minimum O.D. of 7/8 inch and having a minimum thickness of .065 inch and a maximum wall thickness of .120 inch. No ballast is allowed in the bumper tubing.

D. All cars must have a tubular front bumper with a minimum O.D. of 3/4 inch extending forward not more than 21 inches from the leading edge of the front axle. Bumpers must be constructed so as not to cause a safety hazard.

410 Nerfing Bars

A. All cars must be equipped with rear wheel nerf bars. The right rear nerf bar cannot extend beyond the outside of the right rear tire when the right rear tire is at maximum offset.

B. Nerf bars must be constructed from 4130 tubing having a maximum O.D. of one inch and a minimum O.D. of 7/8 inch. Material wall thickness is limited to a minimum of .065 inch and a maximum of .120 inch. A maximum of three horizontal and/or three vertical tubes are allowed in the construction of nerf bars. No ballast is allowed in the nerf bar tubing.

C. With the exception of the exhaust system, no components or accessories may be attached to the nerf bar assembly.

411 Steering and Suspension

A. The steering mechanism must be engineered and assembled in accordance with sound engineering principles.

B. All highly stressed steering parts must be made from SAE 4130 steel or an alloy, specified by the manufacturer as equivalent in necessary strength for its intended use.

C. All such parts must be heat treated (including stress relieving, normalizing, annealing and hardening when applicable) after forming and/or welding as recommended by the manufacturer of the alloy being used.

D. Parts may not be joined by brazing, soldering or by dissimilar metals.

E. All steering parts that are electroplated must be oven-baked at a temperature of 375 degrees Fahrenheit, plus or minus 25 degrees, for a period of not less than three (3) hours after plating.

F. Parts that have been stripped of plating must also be baked according to the specifications in 411, item "E", unless the parts are to be reprocessed within a three (3) hour period.

G. Shot peening is recommended for all highly stressed parts. Authorized facilities should be used.

H. The steering wheel hub must be padded with a resilient material of not less than 3/4 inch thickness.

I. Removable steering wheels incorporating a quick release mechanism conforming to SFI Specification 42.1 are mandatory. Pip pin type mechanisms are not allowed.

J. Any welded aluminum or titanium suspension parts are prohibited. Welded aluminum jacob ladders (Watts linkage) may be utilized.

K. The use of carbon fiber or other composite material as a structural component or suspension and/or driveline component is not allowed.

L. Shock absorbers must have all mechanisms housed in a single cylindrical unit. Shock absorbers may have only one external adjustment and may be adjusted remotely only by manual methods. Shock absorbers cannot operate or be adjusted electrically.

412 Axles

A. Independent suspension is not permitted. The car's axle connecting the wheels must be one piece tubular construction without the capability of camber or independent castor adjustment to the wheel assembly. Any other construction will be considered as independent suspension. Off-set kingpin bushings are allowed.

B. Axle spools attached by the coping method must have the axle wrap around the spool at least two thirds of the spool diameter. Gusset plates are recommended on all spools.

C. All front axles must be constructed of SAE 4130 steel or a steel alloy equivalent in structural strength. Titanium front or rear axles are not permitted.

D. Splined front hubs/wheels will not be allowed.

E. The rear end gear assembly must be of conventional design with only one set of spur gears located behind the ring and pinion.

415 Throttle

A. Throttle toe straps are mandatory. In addition, a minimum of three (3) return springs must be connected to the throttle and at least one of these must be connected to the butterfly shaft.

B. If the throttle actuating system is the cable type, the cable must be encased.

C. The throttle pedal must have a wide-open pedal stop

416 Brakes

- A.** Cars must be equipped with an effective braking device.
- B.** Master cylinders not fixed to the frame must have flexible lines. Copper tubing is not acceptable anywhere in the system.
- C.** Brake discs are limited to being manufactured of steel, ferrous or aluminum alloy. Titanium, carbon or carbon composite brake discs are not allowed. The use of carbon fiber or other composite material in the braking system is not allowed. Brake pad material is open.
- D.** If at any time during competition, it becomes evident that a car is without brakes, the necessary repairs must be completed before the car can continue in competition.

419 Fuel-Air

- A.** Fuel is restricted to methanol only. The addition of any unauthorized material(s) to the fuel is strictly prohibited.
- B.** The addition of any material(s) to the intake air or the addition of any mechanical device(s) essential to the application of this material(s) is strictly prohibited.
- C.** Any device which artificially reduces the temperature of the fuel is strictly prohibited.
- D.** All fuel is subject to testing at any time. Any fuel that does not conform to the USAC standards, as administered at the track, will be considered illegal. The use of illegal fuel could result in disqualification from the event and/or entire program.

420 Ignition-Electronic Equipment

- A.** The use of in-car radio transmitting or receiving devices is prohibited.
- B.** Electronically controlled fuel injection systems are not permitted.
- C.** The use of electronic logic processors to control any function of the race car, and/or any system for gathering continuous data from any function of the race car is strictly prohibited.
- D.** Any device which allows the driver to control or adjust the tire air pressure during the running of an event is strictly prohibited.
- E.** All cars must be equipped with an ignition switch or emergency shut-off located within easy reach of the driver.

421 Oil Supply

- A.** Oil may not be added to the engine supply during a race, without first receiving permission from the USAC Technical Director or Chief Steward.
- B.** For events held on paved tracks the entire engine lubricating system must be of the dry sump type.
- C.** Oil tank vents and/or breathers must be located so as not to endanger the driver.

422 Exhaust and Muffler

- A.** Exhaust systems must be designed to create a minimum fire hazard and a minimum hazard to other competitors.
- B.** Cars having exhaust pipes passing the cockpit in close proximity to the driver must have raised metal guards adjacent to the cockpit to afford protection to the driver and mechanics.
- C.** The car may be required to have a muffler if local conditions warrant. If so, this will be stated on each individual entry blank. Mufflers should be bolted and clamped to the exhaust collector. Mufflers should be attached so as they follow the angle of the nerfing bar as closely as possible.

423 Seating System

- A.** Aluminum seats are mandatory. The seat must provide lateral support on both the left and right sides. The seat bottom must be mounted on the centerline of the chassis. The seat must be mounted to the chassis in a minimum of four positions with a minimum 5/16 steel bolt and nut. Each mounting hole in the seat must have a steel (minimum .060 thickness) or aluminum (minimum .125 thickness) doubler with a minimum 2 inch diameter.
- B.** It is absolutely necessary to provide a kick-up (rollup) forward to the buttocks of sufficient height and strength to prevent forward movement and/or rotation of the torso under the seat belt.
- C.** It is mandatory that all cars have a head rest of high impact, shock absorbing material behind the driver's head with a minimum thickness of one (1) inch. Seats with built-in headrests must also comply with this requirement.
- D.** Adequate padding must be used under the buttocks to absorb impact.

E. Seat Belts - The use of an approved seat belt with a latch/lever release mechanism is mandatory. Rotary mechanisms are not allowed. Both the fastening design and condition of the belt are subject to the inspection of the Technical Committee. Life of the belts in use shall not exceed two (2) years and must be date stamped by the manufacturer. All belts must have a label showing that they meet SFI specification 16.1.

(1) Seat belts must be worn as tight as possible.

(2) Seat belts must be worn in such a manner that it passes around the pelvic area at a point below the anterior superior iliac spines. Under no condition may it be worn over the area of the intestines and abdomen.

(3) Seat belts should not pass over the sides of the seat. they should come through the seat at the bottom on each side thereby wrapping and holding the pelvic area over the greatest possible area. At any point where the belt passes through the side of the seat, the seat edges must be rolled or have grommets to prevent chafing or cutting of the belt material.

(4) Five or six point (crotch) belts connected to the main belt quick release mechanism and securely attached to the chassis are mandatory.

F. Shoulder Harness - The use of double over-the-shoulder straps is mandatory. The minimum width of shoulder straps is three (3) inches. Both the fastening design and condition of the straps are subject to the inspection of the Technical Committee. Life of the shoulder straps in use shall not exceed two (2) years and must be date stamped by the manufacturer. All straps must have a label showing that they meet SFI specifications 16.1.

(1) Shoulder straps should be attached directly to a strong structural member of the chassis close behind the drivers head and neck. At points of attachment they should be four (4) to six (6) inches apart. They should be attached in a line approximately 90 degrees to the seat back and be approximately level with the top of the drivers shoulders.

(2) Where the straps pass through the seat, the edges must be rolled or have grommets to prevent chafing or cutting of the strap material.

(3) Shoulder straps must be secured behind the drivers shoulders so that they are prevented from sliding sideways more than one (1) inch in either direction.

(4) Two belts joining in a "Y" behind the neck to form one strap may not be used.

(5) The shoulder harness should be worn as tight as possible.

OFFICIALS

1. FLAGPERSON

Flagperson is in complete control of cars and drivers while on the track after warm-up laps have started.

2. PIT BOSS

Pit boss is in charge of all personnel and vehicles in pit area.

3. REFEREE

Referee enforces compliance with all WMRA rules and regulations.

ALL DECISIONS MADE BY THE FLAGPERSON/STARTER, THE PIT BOSS OR REFEREE ARE FINAL, PROVIDING THEY DO NOT CONFLICT WITH WMRA RULES OR BY-LAWS.

FINES AND SUSPENSIONS

All fines and/or suspensions must be satisfied before competing in subsequent events.

POINT AND PAYOFF SYSTEMS

25 points are awarded to each car and 25 points to each driver who signs in at a completed competitive event. Points do not apply to payoff.

POINT SYSTEM

<u>Finish</u>	<u>A Main</u>	<u>B Main*</u>	<u>Heat</u>	<u>Qual.</u>
1	105	10	10	10
2	85	6	6	6
3	75	4	4	4
4	68	1	1	1
5	62	32		
6	57	30		
7	52	28		
8	48	26		
9	44	24		
10	40	22		
11	38	20		
12	36			
13	34			
14	32			
15	30			
16	28			
17	26			
18	24			
19 & down	22			

* Transfers to the A Main from the B Main will be awarded points as if it were a heat race. Non transfers will receive their full B Main points.

PAYOFF SYSTEM

<u>Finish</u>	<u>A Main</u>	<u>B Main*</u>	<u>Heat</u>	<u>Qual.</u>
1	105	10	10	10
2	85	6	6	6
3	75	4	4	4
4	68	1	1	1
5	62	32		
6	57	30		
7	52	28		
8	48	26		
9	44	24		
10	40	22		
11	38	20		
12	36			
13	34			
14	32			
15	30			
16	28			
17	26			
18	24			
19 & down	22			

* Transfers to the A Main from the B Main will be awarded points as if it were a heat race. Non transfers will receive their full B Main points.

Payoff will be made by payoff point totals except that the A Main Event winner will receive an additional 2% of the net purse.