



# **2017**

## **Rules and Regulations**

[www.DemingSpeedway.com](http://www.DemingSpeedway.com)

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## **2017 N.M.S.A OFFICERS**

**President** – Jason Bloodgood

**Vice President** – Clint Schlotfeldt

**Secretary** – Nikki Ramey

**Treasurer** – Kim Lemley

\*\*\*\* Rule Book Disclaimer \*\*\*\*

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



## DEMING SPEEDWAY TRACK & FLAG RULES

1. Flagman, Pit Boss, & Head Official shall have complete control over racing event(s).
2. Flagman, Pit Boss, or Head Official may disqualify any car, driver, or participant from any race or racing event for any infraction of track rules.
3. Minimum Age for Each Class:
  - a. Jr Sprint 7 yrs of age
  - b. 600 Restricted 10 yrs of age or as approved by Head Official
  - c. 600 Open 14 yrs of age or as approved by Head Official
  - d. 1200 14 yrs of age or as approved by Head Official
4. Any driver who desires to “move up” any class prior to above listed age limit must obtain consent from Head Official and must start at the rear of the field until such time as determined by track officials.
5. All drivers & crew entering the pits or participating in any race who are under the age of 18 must have a signed waiver/release from parent/guardian verifying age.
6. If the need for a substitute driver arises, it must be approved by track officials.
7. No Race will be held without appropriate first aid & fire protection crew.
8. All Head Official decisions are final. (there will be no protest)
9. Fines may be levied for any rule infractions. Fines will be at track discretion. Any participant violating any rules may be penalized by disqualification, suspension, fine or loss of points. All assessed fines will go to the N.M.S.A. Club Account.
10. The number of cars in any race or main event will be determined by track officials. The number of cars transferring from consolation event will be determined by the track officials. # of cars transferring etc will be posted prior to each race.
11. Any car that qualifies for the main event, that is unable to take the original green flag, may start, with clearance of pit officials, except when a back-up car took his/her place. Back-Up cars must take original green flag.
12. All cars leaving the track during a race will pull to the inside of the track, when safe, and should indicate his/her intention to do so with a hand signal.
13. Any hot lapping after a race program has begun must have Pit Official approval.
14. There will be a mandatory fine of \$100.00 cash for each party involved in a fight. Fine is payable to N.M.S.A.
15. Mufflers are mandatory in all classes. Muffler must be fully intact, tight and must emit no more than 90 db’s at a distance of 75ft.
16. No Traction Control is allowed
17. Work Area is in the pits. Cars involved in a stoppage in an A-Main event will be allowed 2 minutes from pit arrival to complete their repairs. Time permitting. However with 5 laps or less remaining, no time will be given.
18. Pit Speed is 5 MPH or less as determined by Officials Discretion! No Exceptions! Excessive speed may result in a fine of \$100 or a loss of points, or both.
19. In the event that a cash fine or penalty has been levied against any driver, owner, or participant, the fine must be paid prior to the next admittance to the pits.

## FLAGS

### ***Green Flag***

1. Green flag will indicate the start of the race.
2. Initial start: The flagman starts the race at the white line. Pole position car sets the pace!
3. If a car passes or is beside a car before the cone, goes below the cone or hits the cone, that car will be docked 2 positions at the next stoppage or at the end of the race, whichever comes first. On the second offence in the same event that car will be sent to the pits.
4. Last two laps of all races shall be completed under green conditions, unless time limits have been reached and/or head official deems necessary.
5. After the track lights go blank (or start signal), the green flag will be thrown; however the flagman has the option to throw a yellow if the start was unacceptable.
6. On restarts, once an official lap has been completed, all restarts will be single file. The leader can start the race from the apex of turns 3 and 4.
7. On restarts, with 5 or less laps to go, lapped cars will be sent to the back of the pack in all class except for the Jr. Sprints. Lapped cars for Jr. Sprints will be sent to the back on all restarts.
8. Pole Car sets the pace however; flag officials may adjust the pace as needed. The Palm up sign means speed up, palm down means slow down. Any car that fails to respond to a flagman's pace may be sent to the back of the pack for the start.
9. Cars cannot enter the racetrack after the lights are out without approval from the Pit Official. No car may enter the track under green flag conditions

### ***Red Flag***

1. Red flags stop the race. When a red flag (track signals) is observed you should come to a stop as quickly and safely as possible. Avoid passing through the accident area.
2. Each driver shall stop and maintain their position. No Passing. Anyone causing an accident during a red flag may be disqualified for the remainder of the racing event.
3. On a red flag, do not block the pit area exit, entrance or ambulance entrance/exit.
4. If a red is displayed, the line-up will be determined by the position of cars at the last completed lap. Any car(s) involved in the mishap will be given positions at the rear of the pack if they are safe to re-start.
5. On a red flag, cars may go to the pits for repairs and/or fuel, but will be put in the back of the line-up. You can add fuel on the track however you must have a fire extinguisher at your car.
6. Under red conditions a crew may make changes to a car on the track except that they may not change any tire. All tires must be changed in the pits. A crew can adjust spacing on the track with approval from officials.
7. Only ambulance, push vehicle(s), fire safety, officials, and pit crew of those directly involved in the accident are allowed on-scene of any accident.

### ***Yellow Flag***

1. Each driver safely slows down and maintains position, no passing. Anyone causing an accident during a yellow flag may be disqualified for the remainder of the racing event.
2. When observing a yellow, the lead car will slow immediately and the rest of the field will assemble single file in behind. (Be aware of officials, crew, or debris that may be on the track)
3. A furlled yellow flag indicates a track obstruction or condition on the track that should raise the awareness of racers, but does not merit a yellow flag being thrown. Under a furlled yellow, after observing the condition, drivers may continue racing.
4. Any car involved in a yellow will go to the back of the pack.
5. When a yellow is displayed, a car may go to the pits, but will lose its race position, and be required to restart at the back of the line-up.
6. No one is allowed on the track during a yellow except officials unless otherwise directed by an official.

### ***White Flag***

1. White flag indicates 1 lap remaining in the race.

### ***Checkered Flag***

1. A checkered flag will indicate the completion of a race.
2. After the lead car receives the checkered flag, all others will also receive the checkered flag. Continue racing until a caution is displayed.
3. The winner may take an additional courtesy lap, with caution, after receiving the checkered flag.

### ***Black Flag***

1. A black flag indicates that the driver must leave the track. Failure to do so may be enforced with a \$50.00 fine.
2. A car receiving a black flag for mechanical problems may return to the race after completing repairs in the pits with official inspection/approval.
3. If any driver causes two stoppages during one racing event, the driver & car will be black flagged for the event. (This does not mean any driver who is involved in two stoppages rather the driver must have caused them).
4. A furlled black flag may be given as a warning against intentional fouling, nerfing, spinning, or crowding. It may result in a car being set back in finishing position, disqualification, or fine for repeated infractions.
5. Any disruption in the pit area by pit crews can result in their driver being black flagged from the race so he or she can help settle the problem with their crew.
6. Any display of violence in the pit area may result in the involved parties being disqualified, and they will forfeit everything due to them in money and points for the event.





## QUALIFYING

1. Every driver “draws” a pill for placement of their time-in session. Late entries will go to the back of their respective class. Due to group qualifying if you are unable to qualify in your group, you will be sent out in the last session and will receive the slowest of your times.
2. Each qualifying group will have four consecutive laps. In an event of a tie, tie breaker will be the one with the fastest two lap combined time. If both laps tie.
3. Heats will be ran with the same cars from their qualifying session. Heats will be lined up by time with a 4 car invert.

### **NOTE:**

In case of any unforeseen circumstances, Deming Speedway Management reserves the right to alter or adjust the program and/or above listed procedures as needed.

## N.M.S.A. MEMBERSHIP & CAR REGISTRATION

1. Northwest Mini Sprint Association (N.M.S.A) annual memberships will run from January 1 through December 31 each year.
2. Dues will be collected from each pit pass sold at an N.M.S.A. sanctioned race. Collected amount will be \$1.00 per pit pass.
3. N.M.S.A. car registration is required to be eligible for annual point fund payout. 2016 registration is \$40.00 U.S. per car and must be paid no later than, Friday May 1, 2016.
4. You must purchase a membership in order to be eligible to purchase a pit spot. Due to the high demand for outside pit spots, once you have purchased a pit spot, you must participate in one out of three races to maintain your pit spot. This means, if you miss 3 races in a row you will lose your pit spot and it will be for sale.
5. N.M.S.A members are required to sell 50/50 tickets on their assigned night to be eligible for points fund money. If you are not able to sell on your night it is your responsibility to find a replacement or swap with someone. You must have someone 18 yrs of age or older to sell tickets, minors may assist but cannot handle the money.
6. The Association shall have the following elected officers: President, Vice President, Secretary, Treasurer, and Past President. If any officer is absent from two consecutive meetings without prior notification and arrangements made with the association, their office shall be declared vacant and an election will be held to fill the vacancy.
7. The Presidents role is to preside at the club meeting, manage flow of discussion at meetings, and to make decisions as called upon. The Vice-President’s duties shall be to



preside at meetings when the President is absent. The Secretaries duties include taking of the minutes at meetings and distribution thereof, the publication of any newsletters, the preparation and maintenance of any rule book. The Treasurer's duty is to collect club monies, deposit them in accordance with good business practices and maintain an accurate accounting of all incoming and outgoing club funds. The immediate Past President serves in an advisory capacity to association Officers.

8. Association meetings will be held monthly & shall be conducted in an orderly manner. Exception: During race season, monthly meetings, to be held as needed, during race night pit meeting. Only members with their current dues paid will be allowed to speak at an association meeting unless they are specifically invited by the President to address the membership.
9. All race notices and publicity of races sanctioned on tracks having age limitations must inform prospective participants of any age limitations.
10. Once a car is qualified for the night or event there will be no switching of cars or drivers permitted.
11. All cars must have numbers visibly displayed.
12. Each division will have numbers from 1 to 99.

## **GENERAL REGULATIONS**

1. The word "participant" shall include any driver, car owner, or any N.M.S.A Member such as a mechanic or crew person involved in any sanctioned event.
2. No member or participant shall subject any official to abuse or improper language at any time.
3. Scales will be provided at all races.
4. All cars must weigh after Qualifying. Top 3 cars in Heats and Mains must weigh.
5. Violations may be punishable by a fine and/or loss of points.
6. Deming Speedway Rules are printed in this rule book.
7. No Radio Devices will be allowed for communication between driver & crew, etc.
8. Racecievers are mandatory. If a driver fails to have a working receiver while their car is on the track, the driver will be given one warning. If the driver fails to fix or replace the raceciever, the car and driver may be required to start at the back of every race until it is fixed.

## **SAFETY**

### ***Sign In***

Upon arriving at the track, signing in **MUST** be done first to ensure proper insurance coverage.

### ***Racing Attire & Equipment***

1. Driver's suit and/or undergarment requirements: Two layer nomex or fire retardant material driving suit, or one layer fire retardant driving suit & fire retardant undergarments required. Fire retardant driving shoes are recommended.
2. Helmets are required for all drivers and must be Snell 2000+ approved as follows:
  - SA2000 Auto Racing
  - K98 Auto Racing (requires head sock)
  - M98 Motorcycle (requires head sock)
3. Arm restraints are recommended
4. Neck Collars or Head Restraint (e.g., Hans, Defender, etc) recommended.
5. Head Nets are MANDATORY on right side. (Exception: Full containment Seat)
6. Nomex racing gloves are MANDATORY

### ***Car Safety Requirements (applies to all classes)***

1. Driver Safety Bar, (sissy bar) is required on the right side of ALL cars, optional on the left side. Dimensions/placement is as follows:
  - Minimum 1" mounted between elbow & top of shoulder
  - Minimum .065 4130 tubing
  - No removable bars allowed
2. All cars must have full roll cage that encloses the driver and allows a minimum of 3" clearance between top of helmet and the roll cage
3. All cars must have full roll cage that encloses the driver and allows a minimum of 3" clearance between top of helmet and roll cage.
4. All cars must have an approved quick release type steering wheel.
5. All cars must have an approved 5 point racing harness installed as per manufacturer recommendations. A sternum belt is recommended.
6. All belts must be dated no more than 3 years of present date.
7. Arm restraints are recommended and adjusted to keep the drivers hands below the top of the roll cage
8. Chain Guards. Chain guards will be installed on all cars where chains are exposed to the driver or other participants. The chain guard will run on top of the chain from jackshaft to the center of the rear axle with a minimum size of .060 aluminum. Track has the final say on chain guards concerning all classes.



## **CAR CONSTRUCTION & ENGINE RULES**

### ***BRAKES***

All cars are required to have working brake(s) on the drive axle.  
No motorcycle stock brake systems. Brakes must be disk type and must lock up both rear wheels completely upon application. (All Classes)

### ***FUEL LINES***

Ignition Kill switch and fuel shut-off valve shall be mounted within easy reach of driver.  
Exception: Fuel shut-off on Jr. Sprints.  
Fuel lines must be neat and tight to frame. Fuel lines must be kept away from moving parts and must not be made of metal. All lines must be leak free.  
Fuel Bladder required for all classes except JR Sprint.

### ***BATTERY***

All batteries must be securely attached to frame. They must be covered with suitable material to contain acid in the event of spillage.

## ***1200 CLASS***

### **Age Limits:**

All drivers must be 14 years of age, or as approved by Head Official. All rookies at back of pack until approved by track officials to take their position.

### **Roll Cage/Chassis:**

1. Roll Cage minimum size 1 ¼ “, .095 4130 Chromoly Tubing. The front section of the cage shall be no further back than the steering wheel. Roll cage shall have sufficient fore and aft bracing and strength to support the weight of the car & driver in case of an upset. Cage shall have gussets at the intersecting bars to the uprights. Bends must have at least 3-inch radius. No square or pointed corners allowed. Roll cage must be a minimum of 3 in. above the drivers’ helmet.
2. It is mandatory to install a cross brace behind the seat to support the shoulder harness. Sissy bar is mandatory on right side.
3. Wheelbase for all cars shall be 64” to 73”. All cars are to have four piston caliper rear brakes. Nerf Bars must be securely fastened.
4. All Seats must be of high back style and incorporate a headrest.
5. Driver’s chain guard must be a minimum of 1/16<sup>th</sup> stainless steel or 1/8” aluminum. Drive must be shielded from chain.
6. Shall have sprint car style hood and tail and have the appearance of an open wheeled dirt sprint car. No modified styles or radical offsets. Motor to be mounted no more than 4” from centerline.

7. All cars to be equipped with either a steering gear or rack and pinion.
8. A firewall between engine and driver is required, with a minimum thickness of .050.

### **Engine Terms and Conditions:**

1. Only reciprocating piston engines allowed. No Turbo charging, supercharging, or rotary engines allowed. Approved sprint car engine is described as an engine in which at least 100 engines of identical design and assembly have been manufactured and made available for sale.
2. Mufflers must be Flow Master #42440 or Spin Tech with turn down. Turns downs must be a maximum 2 ½ ID.
3. Production 1205cc maximum displacement shall be four cycle, four-cylinder motorcycle engines. No downsizing.
4. Methanol Only. No Additives.
5. US/Canadian Production Street engines only. US/Canadian production refers to engines that were manufactured for an installed in US and Canadian production street-legal motorcycles.
6. Pre 2000 motors are allowed to make the following modifications:
7. Aftermarket oversized valves and cylinder head porting allowed. Aftermarket valves allowed, seats must remain stock.
8. OEM Camshafts only. Cam lobe specifications must meet published measurements in applicable engine service manual. (i.e. lobe dimensions).
9. OEM crankshaft only. No modifications allowed
10. OEM valve train components only (i.e. rockers, retainers, tappets)
11. Aftermarket timing chain and/or tensioner allowed.
12. Aftermarket ignition, exhaust and carburetion or fuel injection allowed.
13. Clutch/Transmission – NO RESTRICTIONS
  - Transmission gears – NO RESTRICTIONS
  - Close-ratio gears/non-standard gear ratios – NO RESTRICTIONS
  - May remove gears
14. Any oil system modifications allowed.
15. Any engine manufactured with electronic fuel injection and/or built after 1999 must remain Stock except for the following:
16. Cam Shaft Timing
17. Removal of Balancer
18. Necessary decking of head and/or block for warpage allowed. Stock pistons must be used (no fly cutting) after market head gaskets allowed.
19. At least one rod must be stock. Remaining rods can be altered to match stock rod.
20. After market exhaust allowed
21. After market fuel injection & ignition modules allowed
22. Modifications or replacements of throttle body assembly and/or parts allowed. (i.e. injectors, fuel rail, air cleaner, etc).
23. After market stainless steel valves allowed. Seats must remain stock.
24. Oil Pan modifications allowed.
25. All engines may run mechanical fuel injection or electronic fuel injection



26. At start of race night all cars shall have operable on-board battery, starter, & clutch.
27. Must have stock working charging system, no cutout allowed.
28. All oil cooler lines must be steel braided and have approved hose ends.
29. Fuel Bladders are mandatory

**Minimum Weight:**

Post race weight: Minimum 1000 lbs. 1000cc engines 950 lbs.

**Wings:**

1. Top Wings maximum 16 sq ft. center section with:
  - Right Panel Maximum: 30" Tall, 60" long & 1458 sq in.
    - Example: 54x30-34", 54x26, 60x24
  - Left Panel Maximum: Max 30" tall, 60" long and 1620 sq in.
    - Example: 54x30", 60x27"
  - Arm guard flare panel (batwings) maximum 4"

**Tires:**

Tire Rule: right rear compound must be American Racer SD33 or Hoosier RD12 or harder.

## ***600 OPEN CLASS***

### ***775 LB MIN WEIGHT RULES***

**Age Limits**

All drivers must be 14 years of age, can be 13 with JR sprint or 600R experience. All rookies at back of pack until approved by track officials to take their position.

**Roll cage/Chassis**

Roll cages shall be at least 1 1/8 inch .065 wall thickness, or 1 1/4 inch .065 wall thickness. Roll cage shall be made of chromoly steel. All cars built after 2003 must be at least 1 1/8 inch .083 or 1 1/4 inch .065. The front section of the cage shall be no further back than the steering wheel. Roll cage shall have sufficient fore and aft bracing and strength to support the weight of the car & driver in case of an upset. Cage shall have gussets at the intersecting bars to the uprights. Bends must have at least 3-inch radius. No square or pointed corners allowed. Roll cage must be a minimum of 3 in. above the drivers' helmet. It is mandatory to install a cross brace behind the seat to support the shoulder harness. Sissy bar mandatory on right side.

**Engine Terms and Conditions**

1. Internal Stock parts
  - NO RESTRICTIONS
2. Overall Engine

- Must be a Production Motorcycle Engine, 4 cylinder, 4 stroke
  - Current year engines allowed
  - Titanium – NO RESTRICTIONS
  - Must have engine, clutch, and transmission all in one unit
  - Must be Chain Driven
3. Bore and stroke – Stock, 600cc Maximum
  4. Head and Cams – NO RESTRICTION
  5. Pistons –NO RESTRICTIONS
  6. Bottom End – NO RESTRICTIONS
  7. Clutch/Transmission – NO RESTRICTIONS
    - Transmission gears – NO RESTRICTIONS
    - Close-ratio gears/non-standard gear ratios – NO RESTRICTIONS
    - May remove gears
  8. No Rev Limit for any engine
  9. No Aftermarket coils
  10. Engines using fuel injection may use after-market add ons (example: Power Commander, Dim Sport) to adjust fuel curve and/or timing, (essentially the same as adjusting the jetting and using ignition advancer).
  11. Ignition Advancer may be used.
  12. Induction System – No Mechanically forced induction (turbo, supercharging)
  13. Any carburetors or fuel injection may be used on any engine, regardless of stock year of engine.
  14. Fuel injection and carburetors may be converted for use with methanol.
  15. Charging system: No Restrictions
  16. Self Starting
  17. Fuel: Methanol Only. No Additives.
  18. Must run track muffler. These will be sold at the track.

### **Minimum Weight**

Minimum weight at all times (car & driver) is 775 lbs.

- If weight is added it must be firmly bolted in place.

### **Wings & Panels**

Top wing center section not to exceed 14sq ft. Right side panel maximum 54"x24-20" (1188 sq in) Left side board maximum 54" x 26" (1404 sq in.).

Arm guard flare panel (batwings) maximum 4"

### **Tires**

All Tires must be Hoosier Tires. Right Rear must be RD15 or harder compound.



## **600 RESTRICTED CLASS**

### **Age Limits**

Min Age: 10 years old, with prior junior sprint experience or at promoter's discretion

### **Roll cage/Chassis**

1. Roll cages shall be at least 1 1/8 inch .065 wall thickness, or 1 1/4 inch .065 wall thickness. Roll cage shall be made of chromoly steel. All cars built after 2003 must be at least 1 1/8 inch .083 or 1 1/4 inch .065. The front section of the cage shall be no further back than the steering wheel. Roll cage shall have sufficient fore and aft bracing and strength to support the weight of the car & driver in case of an upset. Cage shall have gussets at the intersecting bars to the uprights. Bends must have at least 3-inch radius. No square or pointed corners allowed. Roll cage must be a minimum of 3 in. above the drivers' helmet. It is mandatory to install a cross brace behind the seat to support the shoulder harness. Sissy bar mandatory on right side.
2. No cockpit adjustments, except brake bias valve and wing adjuster.

### **Engine Terms and Conditions**

1. Restrictor Plates: 3/4" restrictor plates must be positioned flat in each intake tract such that ALL air entering the engine MUST flow through the 3/4" hole in the restrictor plate. No add-on inserts or devices designed to improve air flow thru the restrictor plate. Plates may be positioned anywhere in the "Stack" (head, manifold, throttle body), as long as air flow meets the above criteria.
2. Internal Stock parts
  - Must use original manufacturer parts for the particular year and make engine except where noted. No mixing of parts from different year and make engines, even if made by the same manufacturer. Non stock external bolt on parts may be used (example: billet oil pan, oil pickup, starter, water pump cover, oil cooler, pipes, etc.)
  - Aftermarket timing chain and/or tensioner allowed.
3. Overall Engine
  - Must be a Production Motorcycle Engine, 4 cylinder, 4 stroke
  - Current year engines allowed
  - No Titanium anywhere in or on the engine, unless it comes stock from manufacturer of engine on the production bike
  - Must have engine, clutch, and transmission all in one unit
  - Must be Chain Driven
4. Bore and stroke – Stock, 600cc Maximum
5. Head and Cams – Stock. Must use 3-layer head gasket.
6. .010 straight cut for clean up is allowed on head



7. Pistons - Must be stock, unmodified parts for the particular model engine.
8. Bottom End – Stock
  - No machining to remove weight or balance the crank. No aftermarket or lightweight cranks.
  - Stock connecting rods must be used, (no aftermarket rods), may use aftermarket rod bolts.
9. Clutch/Transmission
  - Transmission gears must be stock
  - No Close-ratio gears or non-standard gear ratios.
  - All gears must remain in transmission
10. Rev Limit - Stock
11. No Aftermarket coils
12. Engines using fuel injection may use after-market add ons (example: Power Commander, Dim Sport) to adjust fuel curve and/or timing, (essentially the same as adjusting the jetting and using ignition advancer).
13. Ignition Advancer may be used.
14. Induction System – No Mechanically forced induction (turbo, supercharging)
15. Any carburetors or fuel injection may be used on any engine, regardless of stock year of engine. No adjustable velocity stacks. If comes stock on motor, it must be disconnected.
16. Fuel injection and carburetors may be converted for use with methanol.
17. Charging system: Stock factory charging system may not be altered or removed. Must remain in complete working order. No factory racing charging systems.
18. Self Starting
19. Fuel: Methanol Only. No Additives.
20. Must run track muffler. These will be sold at the track.

### **Minimum Weight**

Minimum weight at all times is 750lbs. If weight is added it must be firmly bolted in place.

### **Wings & Panels**

Wings- Top wing center section not to exceed 14 sq. ft. Right side panel maximum 54"x24-20" (1188 sq in). Left side board maximum 54" x 26" (1404 sq in).  
Arm guard flare panel (batwings) maximum 4"

### **Tires**

All Tires must be Hoosier Tires. Right Rear must be RD15 or harder compound.

## ***JR Sprint Class***

### **Age Limits**

Driver's ages 7 through 13 may compete in the "JR" Class.

### **Roll Cage/Chassis & other requirements**

1. Roll cages shall be at least 1-inch .083 wall thickness mild steel or 1-inch .065 wall thickness chromoly steel minimum and at least 3 inches above drivers helmet. The front section of the cages shall be no further back than the steering wheel. Roll cages shall have sufficient fore and aft bracing and strength to support the weight of the car & driver in case of an upset. Cage shall have gussets at the intersecting bars to the uprights. Bends must have at least 3-inch radius. No square or pointed corners allowed. Roll cage must be a minimum of 3 inches. It is mandatory to install a cross brace behind the seat to support the shoulder harness.
2. Bumpers and Nerfs- Cars must have bumpers extending beyond the front and rear tires. Nothing may extend beyond a tangent line from the outside edge of the tires to the bumpers. Nothing may extend beyond the outside edge of the tires or wheels, whichever is widest. No sharp corners or designs as to hook or damage. All cars must be equipped with nerfing bars. Nerfing bars must extend to the inside edge of tires, but not beyond the outside of the tire.
3. Electrics and Electronics- On and off switches must be on dash, top of the cowl or on steering wheel. On/Off switch must be connected and functional. No radio communication is allowed between crew and driver.
4. Suspension – Coil-over and Torsion bars
5. Wheelbase- Maximum 52 inches, Minimum 50 inches, center of front axle to center of rear axle. Rear axle to be steel 1-1/4" or 40mm diameter or Splined axles are allowed.
6. Steering – Front wheels must be connected by a solid or tubular tie rod.
7. Rear wheel drive only. All suspension bolts except wheel nuts must be secured by some type of locking device.
8. Shocks – Aluminum or steel body shocks are legal.
9. Bodies- All cars must have complete bodies of Sprint Car design only. Tail sections must be in place for time trials and all other races. There must be a metal firewall between driver and engine made of 24 gauge steel or .62" aluminum. Body of car must be made of aluminum, metal, fiberglass or high impact plastic. All cars must be painted an attractive color or colors. No rear view mirrors. The only part of the car allowed to be dismantled for driver to enter or exit is a quick release steering hub. All mechanically operated devices must be mounted below the driver's shoulder for safety.
10. Transmission- The drive will be by engine or jackshaft mounted clutch. No axle mounted clutches allowed. No direct drive will be allowed. On left side drive cars, chain guards

will be made of .090" thick aluminum or equivalent and will run on top of chain from the front of the front sprocket to the center of the rear axle. Driver must not be able to touch the chain or sprockets while sitting in the cockpit.

11. Numbers- All cars must have legible numbers displayed in contrasting colors on both sides of the car. Numbers must be separated from the advertising so that they will be readable.
12. Hubs- Front hubs; go-kart type with 5/8" bearings and 5/16" wheel studs. Min. rear hubs; Douglas 5 x 130 go-kart type or equivalent.
13. Driver Adjustable- No driver adjustable components allowed.

### **Engine Terms & Conditions**

All parts must be B&S factory production parts unless otherwise noted in these rules. No machining, polishing or alteration of any parts is permitted unless specifically noted in these rules. All parts are subject to comparison with a known stock part.

1. Shrouds and covers: All shrouds and covers must be run as supplied. Cylinder shield may be bent slightly or drilled around spark plug hole to allow fitting cylinder head temperature lead and clearance for Coil Ground lead. Flywheel Cover, Top Cover and Plate are non tech items. They are replaced by Part # 555699.
2. Header and silencer
  - Factory header or RLV part number 5442S. Any exhaust gasket or no exhaust gasket allowed. Sealer allowed on header. Header nuts are not required to be safety wired. Bottom bracing must be bolted to head. Factory header may be cut and turned to fit car as long as the overall length and tube size remains the same as the stock factory header: 1in OD Exhaust header, max 21 inches long. Coating the pipe is allowed.
  - Exhaust gas temp sensor is optional.
  - RLV Silencer #4100 required. Baffle rattle is allowed however if baffles have been altered or removed, the muffler will be deemed illegal. Baffle holes are .128 inch(#30 drill bit) no go gauge. Coating is allowed
  - Springs attaching Silencer to header must be safety wired.
3. Electric starter: Starter motor must be operational and capable of starting engine. Battery must be minimum of 8 AH rating and capable of starting warm engine. Recoil starter and flywheel starter cone optional. Starter support bracket P/N 557119 is optional.
4. Spark plug: Any commercially available, 10 mm thread, spark plug allowed. Spark plug must be stock. Indexing washers allowed. Removal of factory sealing washer is not allowed unless using head temp sensor ring.
5. Fuel pump must be B&S part 557033. Must be pulsed from intake manifold only.
6. Clutch: May be engine and/or Jackshaft mounted. May use #219 or #35 sprocket.
  - Rev Limiter: Rev Limit is 7100 rpm +/- 50 rpm. Rev limiter may be checked at any point in the race program. Rev limit will be checked with a suitable memory capable tachometer attached to the plug lead and the motor accelerated until the rev limiter begins to function. All rev limiters must function within 100 rpm when checked with

- the same instrument. Each competitor is allowed one courtesy check of the rev limiter with the instrument to be used at the event.
7. Fuel: Methanol Only. No additives.
  8. OIL: Any crankcase oil is allowed BUT MUST PASS THE BURN TEST AND/OR THE SNIFFER TEST.
  9. Carburetor: only Walbro PZ26 or KAN TAI PZ26 re-jetted for Methanol allowed.
    - Slide must remain unaltered. Unaltered Stock needle marked CDB is required.
    - Choke assembly is optional and may be removed and shaft holes plugged with silicon. If choke is retained choke lever may be fastened open with spring, rubber band or tie wrap.
    - Venturi measurement
    - Vertical .9902" max
    - Horizontal .7382" max
  10. Camshaft: No alteration of the camshaft by machining, polishing, or altering is allowed. Must compare to stock Briggs part. First camshaft check will be taken at the valve spring retainers. With the lash set at zero, the movement of the valve spring retainer may not exceed .3085".
    - Any camshaft with a measurement at the push rod of less than .306 should be removed and measured on the grind and checked for alteration. Camshaft must be as supplied with Stock Profile and compression relief.
    - Install degree wheel, using positive stop method.
    - Check ignition timing. With the right edge of the magnet (not the magnet holder) aligned with the right edge of the notch on the bottom of the right leg of the coil. The degree wheel should indicate between 23 and 29 degrees BTDC for either ignition.
    - Tech camshaft at pushrods. Push gently down on dial indicator stem to ensure that there is no lash when pushrods are going down.
      - Exhaust Lobe Lift Intake Lobe
      - 75-71 BBDC .020 34-30 BTDC
      - 57-53 BBDC .050 18-14 BTDC
      - 39-35 BBDC .100 2BTDC-2ATDC
      - 25-21 BBDC .150 13-17 ATDC
      - 9-5 BBDC .200 29-33 ATDC
      - 12-16 ABDC .250 49-53 ATDC
      - 25-29 ABDC .275 63-67 ATDC
      - .3085 MAX .3085 MAX
      - 70-66 BTDC .275 31-28 BBDC
      - 57-53 BTDC .250 18-14 BBDC
      - 37-33 BTDC .200 2-6 ABDC
      - 21-17 BTDC .150 18-22 ABDC
      - 6-2 BTDC .100 33-37 ABDC
      - 11-15 ATDC .050 49-53 ABDC
      - 29-33 ATDC .020 66-70 ABDC

11. Deck/Piston Clearance: Machining of deck surface is permitted. There will be no knife edge finishes allowed, Smooth finish only. Piston pop up cannot exceed .035" above block surface in the center of the piston. When measuring piston pop up, use the backside of the Sox pushrod gauge or set flat bar stock across piston parallel to wrist pin. Use dial indicator to check pop up on center of this bar. Carbon may be removed from the top of the piston prior to measuring. Top of piston may be filed to relieve protrusions left by number stamp on top of piston.
12. Bore: Maximum bore 2.725". Factory oversize pistons allowed.
13. Stroke: Maximum stroke is 2.204". Push piston down to take up rod play.
14. Head gasket: Stock B&S head gasket only. .041" minimum thickness between head bolt holes. Measurements are to be made with micrometer from inside of gasket. Fire-ring Gasket P\N 555698 is production item and legal.
15. Head: Head may not be altered in any way from factory specifications. NO PORTING OF ANY SHAPE OR WAY! Heat sink P\N 555690 is allowed.
  - Rocker Arms: Must be as produced. Length must be 2.850 inches minimum.
  - Rocker Ball: Must be stock. Diameter to be .590" - .610".
  - Cylinder head gasket surface may be machined. Depth from gasket surface to head surface between valves must be a minimum of .319". Measure by using a depth micrometer. There will be no knife edge finishes allowed, Smooth finish only. No angle milling of the head.
  - Ports:
    - Intake port: No media blasting of any type allowed on intake port in\on the head or manifold. Must be as cast.  
Maximum diagonal measurement is 1.101".  
Maximum vertical measurement is 1.044".
    - Exhaust port: No media blasting of any type allowed on exhaust port. Must be as cast.  
Maximum I.D. of shoulder in bottom of exhaust port is .854"
  - Valve seats - one 45° angle only
    - Intake valve seat diameter is .966" - .972".
    - Exhaust valve seat diameter is .844" - .850".
  - Valves
    - Intake valve head diameter is 1.055" - 1.065".
    - Exhaust valve head diameter is .935" - .945".
    - Valve stem diameter is .232" - .238".
    - Valve face must have one 45° sealing surface only.
  - Valve springs
    - Dual valve springs as supplied by factory are required.
    - Inner spring wire diameter is .066" - .068".
    - Outer spring wire diameter is .112" - .114".
    - Valve Guides: Replacement of valve guides with B&S factory part 555645, is allowed.
16. Ignition: Unaltered B&S stock coil #557040 w\External Limiter or #557125 with Internal RPM Limiter is mandatory. Attachment bolts or bolt holes may not be altered.

17. Spark plug connector must be stock factory type.
  - Rubber plug boot is allowed.
  - There must be resistance from plug wire to ground on coil #557040. Resistance must be between 3000 ohms, minimum, to 6000 ohms, maximum. Coil resistance may be rechecked after a minimum of 10 minutes if correct reading is not attained upon first check. No spec available on P/N #557125.
18. Coil air gap is non tech.
19. Flywheel: Only stock Cast Iron or Cast Aluminum Briggs #557126 flywheel is permitted. Starter ring gear and all cooling fins must be in place. No machining, glass beading, sandblasting, painting or coating of flywheel is allowed. Minimum Flywheel Weight with starter ring, cooling fins, and attachment bolts 4 pounds 3 oz.
  - Chipped fins due to poor casting are legal. Completely broken off fins are not allowed.
  - Stock flywheel key with B & S logo is required and will determine Aluminum flywheel ignition timing. The flywheel key may be aluminum or steel. NO offset keys permitted.
20. One or two stock crankcase gaskets are required.
21. Valve Lifters: Must be stock. No Polishing allowed.
  - Lifter head diameter must be .969" - .972".
22. Connecting Rod: Stock B&S part #557005 , 557117 or Arc rod #6247 maybe used . Rod may not be altered or polished. Rod may be clearanced providing that it is in stock configuration and finish, with no dimpling or media blasting. Rod ends must be concentric with crank journal and wrist pin with no chamfer or breaking of edges.
  - Rod length, measured from bottom of wrist pin hole to top of crank journal hole, is 2.419" minimum to 2.429" maximum.
  - Oil hole opening is .185" no-go. Crank end of oil hole is chamfered.
23. Wrist pin:
  - Maximum I.D. is .414".
  - O.D. is .624"-626".
  - Minimum length is 1.901".
24. Piston rings: Three rings mandatory. Top compression ring must have chamfer or O toward top of piston. Second scraper ring must be installed with inside chamfer down and O toward top of piston. Oil ring must be installed as from factory. No alteration of rings allowed except end gapping and lapping. Maximum RING GAP of Rings .050. Rings must be self supported in the cylinder bore of the engine being inspected. Rings must remain flat. Rings must be in one piece when removed from block. Aftermarket rings are allowed if they meet the Specifications listed below.
  - Minimum width of top two rings is .095".
  - Thickness of top two rings is .059" - .064".
  - Minimum width of oil ring is .065". Ring groove must be present. Expander must be installed.
  - Thickness of oil ring is .098" - .102".



25. Piston: Stock “kidney bean” piston required. No alteration, polishing or machining allowed. Only piston skirts are coated and coating cannot be removed and skirts or any part of piston be polished. Factory finish only.
  - Minimum from top of piston to top of wrist pin on circlip side is .658”.
  - Minimum piston length is 1.768”.
  - Factory oversize World Formula pistons are allowed.
26. Crankshaft: Stock B&S crankshaft casting #772 and #052 only allowed, all finishes being as factory supplied, with stock timing gear installed in stock location only. No alteration or polishing in any manner allowed. Offset crankshafts not permitted. Stock bearings required.
  - Shim(s) if used, must be installed as from factory.
  - Crankshaft journal diameter is 1.094” - 1.100”.
27. Block: Must be stock with no alterations, except blocks may be repaired from broken rod damage, providing that repair does not constitute a functional modification of original block. No welding is permitted from the cooling fins upward. CYB rule: Unless the rules say you can; you can’t!!!
28. All Tolerances +/- .001 measured with dial indicators, micrometers or calipers due to calibration variance.

## **Weight**

1. Minimum weight (car and driver) at all times is 400 lbs. If weight is added must be firmly bolted in place.

## **Wings**

Wings- Right side board max. 42" x 20". Left side board max. 42" x 20". Min size 6 sq. ft. The wing cannot be mounted outside the centerline of the tire. Side boards may not extend more than 3" beyond center section and sides must cover center section. All wings must have a 1/16" radius edges or edging. No raw edges. No wood, except for ribs or spars inside the center section. Wing sides cannot be more than 4" below top of roll cage. Nose wings cannot exceed 24" x 18". Top wing is mandatory to enter a night's event.

## **Tires**

1. Tires & Wheels- Wheels to be 8" diameter steel or aluminum non-beadlock only. Right rear spec. tire to be 16 x 8.50 x 8 American Racer (McCreary) stamped N.M.M.A or Hoosier RD20 of comparable size. Wheels must be held on with 4 or more standard lug nuts or knock-off hubs.
2. Tread – Maximum 46 inches, Minimum 32 inches center to center of tires.



## Point System and Incentive Fund

- Rookie of a class will be the driver that has collected the most points in the racing season for that class but has not raced more than 4 races in that class in the previous year.
- All completed sanctioned races will count toward the point fund.
- Registered Car number must participate in 75% of the races to be eligible for points fund money.
- Points fund money to be paid to top ten in points.
- NMSA Shall follow points structure published by Deming Speedway

## Tech Inspection

- Technical inspector(s) have authority to call for inspections on any and all cars at any time. Tech inspectors may inspect for visual evidence of un-allowed modifications such as machine work, use of unapproved, non-stock, or non-conforming parts. Any engine measurements taken must be compared to published specifications. Published specifications may include rule book, manufacturer's manual, etc. Engines that have been sealed by the tech inspectors may bypass inspection of any sealed areas, so long as the seal has not been damaged. Condition of seal is at tech inspector's sole discretion.
- Car owner will be responsible for dismantling an engine for tech inspection.
- Refusal of tech inspection called for by tech inspector or as a result of protest shall automatically deem the vehicle illegal, and be subject to penalties as determined by the grievance committee. Vehicle may further be prohibited from competition until an inspection is performed.
- Displacement shall be calculated as follows:  $\text{BORE} \times \text{BORE} \times \text{STROKE} \times .007854 \times \text{THE NUMBER OF CYLINDERS}$ .
- Fines may be levied for rule infractions. Said fines will be set at the discretion of the N.M.S.A. Grievance Committee. Any participant violating any rule may be penalized that night's points and or face suspension and fine.
- In the event a cash fine is levied against a driver, owner or participant, the fine must be paid in full before that car and member will be allowed to compete again.
- All fines are payable to N.M.S.A. in cash and shall be added to the general fund.

## Protest & Grievances

1. Protests will be allowed, when a party believes technical (car or engine) specifications have been violated. Protesting party must present \$200.00 and written protest to a tech inspector or NMSA official within 30 minutes of race conclusion to initiate protest. Protesting party must be a driver and must have competed in the same race as driver and vehicle involved in the protest. Vehicle owner and crew will be responsible for their own tear down, with tech inspector present. Technical inspectors will perform all inspections and measurements. If vehicle in question is found to be legal, protesting party must relinquish the entire \$200.00 fee to protested car owner. If vehicle in question is found illegal, the car and driver will relinquish all points and other incentives earned during that race event. If a vehicle is found illegal for a second time during the season, the car and driver will relinquish all points accumulated to that in the season. Additional penalties for first and subsequent offenses shall be determined by the tech inspector AND grievance committee. Vehicles found to be illegal result in the return of the \$200.00 to the protesting party.
2. Grievance committee shall consist of 2 members from each class (not represented in the grievance), tech inspector, track management, and NMSA President. Committee members may select a stand-in if their participation may be viewed as biased. Responsibilities include: Handling members engaged in unsportsmanlike conduct, actions detrimental to the sport, and assignment of penalties for technical violations. The Grievance Committee may be called to act by any committee member, tech inspector, or through receipt of written grievance from a club member. Grievances from club members must be presented during the event (night) in question. The committee has full authority to levy penalties including: fines, disqualification, loss of points, suspension. As incidents will be reviewed on a case by case basis, the committee may so choose, but shall not be bound to consider precedent set by prior decisions. Grievance Committee decisions may not be appealed or protested and any penalties must be served prior to competition in future NMSA events.
3. Verbal or physical attacks by any participant shall result in automatic disqualification from the event, and be subject to further penalty as deemed by the Grievance Committee.
4. The rules and regulations of the NMSA will be followed at all NMSA. racing events.
5. Grievance Committee has sole authority to interpret NMSA rules.

**NOTE: Association reserves the right to add, delete, or alter these rules for the safety of its members.**



## **Rule Change Procedures**

NMSA Rules, bylaws, and procedures will be done in accordance with association bylaws.

### ***Warning Statement (Caution)***

Auto racing is a hazardous activity. Compliance with these guidelines is not guarantee of safety. No express or implied warranty of safety shall result from publication of or compliance with these rules and/or regulations. They are intended as a guide for conduct of the sport and in no way a guarantee against injury or death to participant, spectator or official. No express or implied warranty of safety shall result from alteration or specifications. Any interpretation or deviation from these rules is left to the discretion of the officials. Their decision is final.