

# **“MADERA 360 SUPERMODIFIEDS”**

## **2007 RULES**

Changes from 2006 are *Bold and Italicized*

### **General Disclaimer Statement**

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 condition of all events, and by participating in these events, all participants are deemed to have complied with these rules. **NO EXPRESSED 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 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 deviation from any of the specifications herein, or to impose any further restrictions that in his or her opinion do not alter the minimum acceptable requirements. **NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT THEREFROM.** Any interpretation of, or deviation from, these rules is left to the discretion of the officials. The decision of the officials is final.

*Any deviation from these rules granted by any official must be in writing and delivered/distributed to all owners or drivers in division. Notice will include what deviation, date of deviation and reason for deviation.*

Protest:

Driver/Owner of car that protests any competitor must remain at track for the duration of the protest/tear down or protest will automatically be waived. Any protest monies will then be forfeited to owner of protested car if not found illegal.

**THE 2007 TECHNICAL SPECIFICATIONS WILL BE IN EFFECT THRU THE 2008 RACE SEASON. RULES RELATING TO SAFETY EQUIPMENT ISSUES OR THE OBSOLESENCE OF PARTS MAY BE ALTERED.**

## I. DEFINITIONS

- A. OEM (Original Equipment Manufacture): This includes GM (General Motors), FMC (Ford Motor Corporation), and CC (Chrysler Corporation) only. Madera Speedway must approve any other manufacturer.
- B. Upright car: A car in which the driver straddles the drive line and the driver's body is completely behind the plane created by the flywheel; the driveline must be 90 degrees to the rear axle and the bottom of the seat must be above the driveline.
- C. Offset Car: Any car that does not fit in the description of an upright car, and that the torso of the driver is behind the plane created by the engine plate.

## II. SAFETY RULES

### A. Drivers Equipment

- a. Only approved Snell 2000 or newer helmets shall be used. SA 2005 is recommended. This may be modified at any time due to insurance regulations.
- b. The driver must wear safety belts, shoulder harness and a submarine belt at all times while the car is running. Arm restraints must be worn at any time the driver is on the race track.
- c. The driver must wear a fire retardant race type uniform with a minimum of 2 (two) layers covering the full arm and leg area, Nomex fire retardant socks and/or racing shoes covering the ankle. Fire retardant gloves, underwear and head hoods are required. Nomex combination to equal three layered fire suits and the use of neck collars are required.
- d. Driver's suit must be clean and safe with no holes, burns or tears, etc.
- e. Cage nets are required.

### B. Track Safety

- a. Drivers and pit crew members should always make mental note of where the ambulance, fire extinguishers and exits are located on the track.
- b. Running onto the speedway during a race or immediately after the flag has ended and event is strictly prohibited and those individuals responsible may be subject to a fine and/or suspension. **ALL MADERA SPEEDWAY MEMBERS ARE RESPONSIBLE FOR ACTING IN A PROFESSIONAL MANNER TOWARD THEIR FELLOW MEMBERS AND THE AUDIENCE WHILE IN THE RACING EVENT AREA!**

- c. In case of an accident on the track, only appointed safety crew, medical personnel, **and after okay from the officials** will the car owner, crew members or directly related people be allowed on the track.
- d. **Car owners/drivers are responsible for their crews.**
- e. Each racecar's crew shall have a 5 lb. or larger, fully charged, dry chemical fire extinguisher at every race. It must be in plain view and readily accessible.
- f. When the first car starts moving for the race signaled by the officials, the track must be cleared of all persons. Any crew member not obeying this order shall be fined.

### III. CAR SPECIFICATIONS

#### A. Engine Specification

- a. 360 Cubic inch displacement maximum. OEM cast iron *or aftermarket cast iron replacement block only. Aftermarket block shall retain OEM dimensions.*
- b. Compression will be limited to 14 to 1 maximum.
- c. **Engine Heads:** Either (i) – (ii) – (iii)
  - i. OEM cast iron cylinder heads are allowed. These heads must have proof of OEM part. Valve angle must remain within one degree of stock (23 degrees) example Chevrolet. Any manifold or carb spacer allowed.
  - ii. **The Madera Speedway spec head.** The Brodix #-11SPX (ASCS) spec. The intake runner opening may not be altered in any way. This includes the complete opening all the way to the original intake valve seat ring below the bowl area. Port matching will be allowed up to ¾” or no further into the port than the closest edge of the closest letter of the ASCS logo. Polishing or aluminum removing shaping will be allowed in this combustion chamber area. Polishing will be allowed in the exhaust port as long as the original ASCS logo is not affected and the port shape is altered substantially. Valve size or angle placement may not be altered in any way. This head must remain within one degree of the OEM valve angle (23 degrees example Chevrolet). This cylinder head must run the Brodix HV 1000 intake manifold untouched in any way. The carb spacer/adaptor will be limited to the 1 1/8” maximum including gaskets. *Ford and Mopar engines may use equivalent flow intake manifold if HV1000 is not available.*

- iii. After market cast iron or aluminum engine heads other than the Madera Speedway spec head can be used. These heads must remain within one degree of the OEM valve angle (23 degrees example Chevrolet). Two valves per cylinder only. This cylinder head must run either the Victor JR #2972 or #2975 **and ASCS intake gasket #9152300. The intake gasket may not be altered in any way.** The 1 1/8" maximum carb spacer rule will apply.
  
- d. Intake Manifold
  - i. All intake manifolds must bolt directly to the cylinder heads without using shims, spacers, adapters, etc. or modifying the cylinder heads altering the runner length of the intake manifolds other than the mounting gasket.
  - ii. For other than Chevrolet/GM engines: if the Victor JR manifold is not available any single carburetor manifold equivalent to the Victor JR #2972 or #2975 may be substituted as long as it is not altered in any way other than the port matching. Tech must be notified for approval prior to installation. **Exceptions to this rule must be approved by the Race Director.**
  - iii. All manifolds will be removed for inspection at Madera Speedway tech personnel request if needed to satisfy a competitor protest.
  
- e. Two valves per cylinder heads only, must be cam, push rod and rocker arm type.
- f. No titanium parts except for valves and valve spring retainers.
- g. Engine must be in front of driver. (No rear engine powered cars allowed).
- h. Auxiliary radiators may be run (auxiliary meaning outside the frame). All radiator mountings are subject to safety (tech) approval.
- i. Dry sump oiling systems are allowed.
- j. Battery (if used) must be securely mounted and protected - maintenance free (Sealed type).
- k. **A #12 inspection opening in oil pan is highly recommended.**

## **B. Fuel and Fuel Systems**

- a. Gasoline or alcohol (methanol) is allowed. No additives of Nitro, Propeline Oxide or water-soluble fuel. **Gasoline** must be Madera Spec Fuel only and purchased at Madera Speedway. Spec Fuel to be determined.

- b. Holley #4412 or alcohol equivalent #9647 carburetor only. Main body may not be altered. Throat, throttle plate and booster diameters may not be altered in size. ***Choke horn may be removed.***
- c. All cars must be equipped with a ¼ turn fuel shut off valve in driver's compartment within driver's reach. Fuel shut off must be clearly marked as to on/off positions. It is recommended that the shut off be accessible from the outside of the car.
- d. Fuel cells and bladders must be approved by the manufacturer for their intended use as such; approval by the manufacturer is mandatory. They must be properly enclosed. No pressure systems allowed. Mechanical fuel pumps only.
- e. Fuel tanks must be constructed and mounted such that every possible precaution has been taken to insure that no rupture will occur. Any fuel cell mounted outside the main frame rails shall be protected with roll cage tubing (1 ¼" diameter, and at least .095 wall) or stronger and pass tech approval for safety.
- f. All fuel tanks on the car must be operational. These tanks cannot be used as ballast only.

### **C. Chassis, Body and Running Gear**

- a. General
  - i. Must be open cockpit, open wheel type car. No stock car type bodies.
  - ii. Wheel base will be a minimum of 85" and a max of 102".
  - iii. Overall length not to exceed 168", maximum width to be 86". No portion of the car may extend outside of the tires.
  - iv. No four-wheel drive cars will be allowed.
  - v. No carbon fiber components except wheels.
  - vi. All cars must have full bodies around the whole car, no open parts. The driver must be enclosed from the racing surface.
  - vii. No independent suspensions - front or rear.
  - viii. Locked or open tube rear-ends only. No limited slip or torque sensing differentials allowed.
  - ix. Open drive shafts must have fore and aft restraining loops of 1" diameter tubing or equivalent and shields around U-joints of 1/8" material.
  - x. ***Shock absorbers with a retail list price of over \$300.00 each (including any remote adjustment equipment) may not be used. This price limit may be revised depending on market conditions.***

- b. Brakes
  - i. All cars must be equipped with a suitable braking system front rear. Brakes must be foot operated.

#### **D. Car Construction**

- a. Cars must have an underpan under the cockpit area and vertical panels to effectively seal the cockpit from the engine compartment. Cars must have an underpan below with no unsealed holes. Belly pans and/or engine trays extending from the front of the radiator to the back of the driver's seat with no unsealed holes. This will be considered the lowest suspended portion of the car and serve as the measuring point for the crankshaft height rule.
- b. Bodywork on all cars must utilize a totally flat bottom extending to the outer perimeters of the bodywork with no aerodynamic devices or airfoils exposed to the racing surface. Skirt devices of any kind will not be permitted. Any device bridging the space between the bodywork and/or belly pan of the car and racing surface is prohibited with the exception of the most forward section of the nose, providing it is parallel to the front axle centerline. This skirt may not extend down the side(s) of the nose.
- c. No part of the car may extend past the inside place of the front tires, measured from the leading edge of the front tires.
- d. No part of the car may extend past edge of the rear tires.
- e. No bodywork may extend over any portion of the front or rear tires unless it is grandfathered from prior years participation.
- f. Attachments or devices which are moveable or adjustable while running that effect air flow are not permitted.
- g. All cars must have an adequate rear bumper for push starting and must have side nerfs no less than the center of the tire in. Front and rear bumpers must be used as well as 3 point side nerfs. All nerfs must be pinned, bolted or welded at all mounting points. Side nerfs must extend to at least the plane created by the center of the fore and aft tires.
- h. Roll cages are mandatory on all cars and must be constructed of seamless steel tubing with a minimum of O.D. of 1 3/8" and minimum wall thickness of .095, DOM seamless tubing or equivalent. This structure must be attached and secured to a strong component of the chassis structure and adequately braced fore and aft to secure it in an upright position. All roll cages must pass technical inspection. Roll cage tubing on all four sides of the driver's head must be padded with an energy absorbing material and a driver's head. All four corners and all points where tubing meets the upper frame rail must be gusseted. Side cage wheel entry prevention bars are required where the side

opening is large enough to allow wheel penetration. Driver's torso must be within the plane crested by the inner edge of the wheels

- i. The chassis shall be constructed such that an upper frame rail, separated by at least 12" centerline to centerline, passes adjacent to the driver on all four sides.

#### **E. Mufflers**

- a. A muffler device will be required. All cars must meet local speedway DBA requirements or they will not be able to compete.

#### **F. Ignition Switch**

- a. All cars must be equipped with an ignition switch within easy reach of the driver while belted tightly in the seat and be clearly marked on/off.

#### **G. Weight and Wing (air foil)**

- a. Cars shall have a maximum of 65% left side weight. Cars may be checked for the total and left side weight prior to qualifying and the main event or may be randomly picked because of performance.
- b. Top wing area allowed is 2,400 square inches and bottom wing area cannot exceed 500 square inches. Weight will be a minimum of 2,100 lbs., race ready with driver in car.
- c. True upright car cannot exceed 57% left side weight and top wing will be allowed 4,000 square inches of wing area. Front wing area cannot exceed 500 square inches. Weight will be a minimum of 1,800 lbs., race ready with the driver in car. Sprint type cars will fall under this category.
- d. Supermodified (non-upright cars) at 57% left side weight are allowed 4000 square inches top wing area and bottom wing are cannot exceed 500 square inches. Weight will be a minimum 2,100 lbs., race ready with driver in car.
- e. Front wings shall not extend beyond the front of the front bumper or nerf and shall not interfere with the driver's vision.
- f. For multiple wing surfaces, the surface of all levels will be added together regardless of gap. The wing will be measured by a straight line on each stage separately. Maximum wickerbill height will be 1". Air foils cannot be mounted to suspension components.
- g. Madera Speedway officials have the privilege to work with new, current and first time cars on the wing and weight issues to keep the class competitive. *Cars may be weight factored at any time in order to maintain competitiveness.*

#### **H. Steering mechanism**

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

## **I. Drive Shafts, Torque Arms, etc.**

- a. All revolving parts inside the cockpit must be shielded by suitable guard.
- b. Open drive shafts must have adequate restraining loops fore and aft.
- c. Torque arms within the driver's compartment must be restrained with safety loops of adequate strength.

## **J. Throttle**

- a. Throttle toe straps are mandatory. In addition, a minimum of two return springs must be attached to the carburetor butterfly shaft.
- b. If the throttle's actuating mechanism is the cable type, the cable must be encased to insure push/pull operation.
- c. The throttle must have a wide open pedal stop.

## **K. Seating System**

- a. To the degree practical, the seating system, whether upright or reclining, shall provide lateral support on both left and right sides of the seat.
- b. Any seats that are of the reclining type or position must provide a kick-up (roll-up) forward of the buttocks of sufficient height and strength to prevent forward movement and/or rotation of the torso under the seat belt.
- c. The use of an approved seat belt with a quick release opening clasp is mandatory. Both the fastening design and condition of the belt is subject to inspection by tech at any time. No frayed belts will be allowed to be used! Life of the belts shall be three years. After that time they can be sent back to the manufacturer for re-certification or can be replaced. They must also meet the following requirements:
  - i. Must be SFI approved and date stamped (maximum 3 years old).
  - ii. Minimum width 3"
  - iii. Must be a 5 part system to include a Sub Belt (crotch belt)
  - iv. Metal to metal quick release buckle.
  - v. Belt material must be as short as practical.
- d. **Shoulder Harness:** The use of double shoulder straps is mandatory. The shoulder harness must meet the following requirements:
  - i. Two individual straps of adjustable length with metal ends designed to join the seat belt at the quick release mechanisms, thereby forming a single release mechanism, thereby forming a single release point for the seat belt/shoulder harness system.



- ii. Minimum width 3”.
- iii. 2 belts joining in a “Y” behind the neck to form 1 strap may not be used.
- iv. Harness should be attached directly to a strong structural member of the car close behind the driver’s head and neck. At points of attachment, they should be 4 to 6” apart.
- e. No rear view mirrors or polished components to act as mirrors.

**L. Fire system**

- a. All cars will have an on board fire system with a minimum of 5 lbs. capacity.
- b. Fire system must be able to be activated by the driver while belted in the car.
- c. A minimum of 2 nozzles shall be directed to the lower part of the driver’s torso.
- d. The fire bottle must have a visible gauge.

**M. Wheels**

- a. The number of wheels is limited to 2 front and 2 rear wheels only on each car.
- b. Wheel rim width is limited to 20’, measured between the outer bead seats of the rim.
- c. All wheels must be approved for racing by the manufacturer.

**IV. MISCELLANEOUS RULES AND RESTRICTIONS**

- A. No on board computers allowed, other than exhaust temperature probe, lap counters and max RPM identifying tachometer (Tattle Tale).
- B. Any exotic or newly developed production part will require Madera Speedway Tech approval.
- C. No car will be allowed to compete until it has passed technical inspection by Madera Speedway.
- D. Radios are permitted between driver and crew.
- E. Madera Speedway racecars are required to carry the stickers of our class or club sponsors that relate to the class. (points sponsors, race sponsors or contingency sponsors.)
- F. **Transponders are required. AMB transponders are to be vertically mounted 12” in front of the leading edge of the right rear axle housing and securely attached to the frame with a clear, unobstructed path to the pavement. Rented transponders must be mounted in the same manner and location. For further clarification, please refer to the AMB manual.**

## **V. ADDITIONAL INFORMATION**

**Tires will be Hoosier (specs to be announced). A car will be allowed 4 new tires at it's first race of the season. After the car's first race, a maximum of 2 new tires per race only. Tires will be available at the track and at Hoosier distribution.**

***Direct questions to: MADERA SPEEDWAY at [www.RaceMadera.com](http://www.RaceMadera.com)***