

# VI. GRANDPA DOG 4 Cylinder Rules (Stock and Pro)

Revised - January 1, 2019

General Note:

The newly adjusted GRANDPA DOG 4 Cylinder rules have been designed to allow entry level racing, Stock 4 Cylinders, and a progression to a more advanced division of Pro 4 Cylinders. Two (2) divisions will race together during on scored event. One set of points will be tracked for qualification and starting position alignment, but the top tier of each division will be separated out for winners circle.

Qualifying (heats) will be arranged from the traditional three (3) week average, as described in the General Rules - Points and Handicap System. Heats will be separated once the Stock 4 Cylinder division exceeds ten (10) rookie or entry level participants.

Pro 4 Cylinder racers will qualify second and line up behind the qualified Stock 4 Cylinder teams in the feature event. Pro 4 Cylinder racers must use patience and skill when moving through the field, and rough driving will not be tolerated.

All unqualified teams in both divisions will line up behind the qualified cars to fill the allotted field (30 car maximum).

All the following rules will be the same for each division unless noted by a "Stock 4" or "Pro 4" designation.

## Stock 4 Cylinders -

Completely stock vehicles, prepared with safety guide lines, to help teach driver control. Over competitive drivers and vehicles will be subject to rule amendments to help equalize the competition. This will be a fun class with the thrill of competition.

## Pro 4 Cylinders -

Modifications will be allowed according to the rules. Amendments may be made as the season progresses. Please carefully read and discuss any gray areas with tech officials.

### A. BODY AND CHASSIS

- 1.) A Maximum wheel base of 107" excluding midsize vehicles (such as Camaros, Firebirds, Thunderbirds, Van, SUV, Trucks, etc.). Please call for clarifications on approved vehicle makes and models.
- 2.) Unaltered stock body and frame dimensions must remain. No additional spoilers or splitters (factory OEM only).
- 3.) Body, paint, and number. Pre-register a number 0-999 and body paint in contrasting color on both doors and roof at least three (3) inches thick and eighteen (18) inches tall. Additional numbers should be painted on right front and rear of the vehicle for easy recognition by officials. Body and paint must be kept in presentable condition.
  - a.) **Stock 4** - A yellow stripe on the top portion of the windshield with the word "stock" lettered in it will be mandatory.
- 4.) Remove all glass (except windshield, if desired may be replaced with Lexan (polycarbonate, NOT plexi-glass). No rear windows.
- 5.) Remove all burnable and sharp objects within interior.

- 6.) Do not remove any webbing or support steel from chassis or body components unless for roll cage clearance inside the driver's door.
- 7.) Dash and steering column must remain in stock location for make and model being used. Factory ignition switch lock pin is highly recommended to be removed from column.
- 8.) Factory OEM brake pedal and components only in factory location.
- 9.) All doors must be welded or chained shut.
- 10.) Stock OEM springs only. No racing springs.
  - a.) **Pro 4** - May modify springs or use aftermarket springs.
- 11.) No coil over adjusters, no weight jacking devices. Spring spacers may be used, but must be safety wired in place.
  - a.) **Pro 4** - May use replacement coil over suspension components.
- 12.) Control arms and mounting locations must remain factory stock.

## B. BRACING

- 1.) Single roll bar behind driver and as close to roof as possible required. Full roll cage strongly recommended for all.
  - a.) **Pro 4** - Full roll cage is required.
- 2.) Each roll bar must have two braces running rearward from top of roll cage at approx. 45 degree angle welded to frame or foot plate bolted through to another plate.
- 3.) All cars without full roll cage, must have steel plate min. 5/16" thickness by 12" wide starting 12" before and continuing 18" behind driver's door and firmly secured to body.
- 4.) Adequate brace must run from door jam to door jam at approximately 15 inches from ground. Tight to the body, inside or outside of the door skin.
- 5.) All roll bars must be min. 1 3/4 O.D. ERW or DOM, .090 min. wall thickness. All roll bars must be welded to the frame unless unibody construction. If unibody, must have 6" sq. foot plate welded and/or bolted to the floor.
- 6.) Roll Cage Suggestion - Stitch weld heavy wall tubing along the top of the rocker panel extending from the foot box back behind the drivers seat. This will provide a strong brace for roll cage support bars.
- 7.) All weld joints must have gusset min. 1/8" thick steel. Drivers side door plates are highly recommended.
- 8.) Aluminum high back racing seats recommended and shall be mounted to support bars extending from the full roll cage.
- 9.) Adequate padding in the driver's compartment required.
- 10.) Equivalent or greater bracing may be used subject to the approval of Wyoming County International Speedway.

## C. ENGINE AND TRANSMISSION

- 1.) STOCK, STOCK, STOCK – No performance or race accessories. If a component of the engine fails it should be replaced by other "used" (junkyard) components. Reconditioning of any core engine components (i.e. heads, block, internals components, etc.) is highly discouraged.
  - a.) **Pro 4** - May use new replacement components and rebuild drive train. May overbore to .030 max. Stock rod length and stock crank mandatory. Cam must remain within 5% of factory dimensions. Timing gears/belt/chain may be aftermarket.
- 2.) Bolt on accessories such as water pumps, alternators, and power steering pumps, etc., may be OEM replacement parts.
- 3.) Factory OEM carburetor/fuel injection system, unaltered for make and model being used.
- 4.) No performance enhancing or after market computer chips allowed.
- 5.) OEM factory ignition and 13.5 volt battery only located under the hood.
  - a.) **Pro 4** - May move battery location, but must approved by safety tech.
- 6.) Factory OEM exhaust manifold and intake manifold unaltered.

- 7.) Converter and mufflers may be removed and replaced with straight pipe (maximum two (2) inches) extended out past the drivers compartment.
- 8.) Stock unaltered transmission/transaxle. Stock clutch assembly only.

#### **D. WEIGHT**

- 1.) A minimum weight (after race with driver and no added fluids) will be in relationship to the engines displacement, number of cams, and number of valves. The overall minimum weight is 2,000 lbs.
  - a.) 100 lbs per cubic centimeter displacement.
  - b.) Add: 100 lbs for valves in excess of 2 per cylinder.
  - c.) Add: 100 lbs for dual overhead cam (DOHC).
- 2.) Maximum 54% left side weight (with driver in car, no allowance for fuel/water/etc.).
- 3.) After two wins, 50 lbs will be added to the vehicle. Each win after that requires an additional 25 lbs. At the beginning of the following season, all but 50 lbs may be removed from existing or new vehicle.

#### **E. TIRES AND WHEELS**

- 1.) No offset wheels side to side, no staggered tire size side to side.
- 2.) No widening factory wheels. Heavy duty factory aluminum may be used if approved by tech.
  - a.) **Pro 4** - Aftermarket racing wheels allowed. Must be equal offset (max 7").
- 3.) 60 series DOT radial tires only – No performance or recap tires (tech inspection discretion).
- 4.) Minimum tire hardness of 300 is required (see tire sidewall).

#### **F. FUEL TANK**

- 1.) Factory fuel tanks secured in front of the rear axel may remain stock location or be replaced with small fuel cell.
- 2.) Factory fuel tanks located behind rear axel must be replaced with approved fuel cell and safety secured within the trunk area. Trunk floor may be removed for clearance. Bottom of cell may not be lower than the center line of the rear wheels.

#### **G. DRIVER AND SAFETY**

- 1.) Approved helmet, firesuit, gloves, safety harness and window net required (see General Rules).

#### **H. SEATS AND SHOULDER HARNESSSES**

- 1.) Aluminum racing seats required. All seats must have head rests & high back support. Seat must be securely attached and hung within the roll cage. Back of seat must be mounted to the roll cage. Mounting to the floor is no longer acceptable.
- 2.) You must use a minimum three inch, quick release 5 point restraint system. A min. two inch wide crotch strap is mandatory. All safety belts must be in good condition and subject to safety inspection.
- 3.) Shoulder harness must be connected to the roll cage. All lap belts must be mounted behind the seat and attached to the roll cage according to manufacturer specifications.

#### **I. GENERAL RULES** (Note - See additional “General Rules” section in conjunction with the following).

- 1.) Radiator must have an overflow can, one (1) gallon minimum. No anti-freeze permitted (violators will be subject to a \$50 fine on first offence). Racing radiator additives are permitted.
- 2.) No oil/water coolers are allowed in driver’s compartment.
- 3.) Driver side window net with a quick release mechanism is mandatory. Quick release with plastic parts not permitted.
- 4.) Rear wheel drive cars. Drive shafts and universals must be similar to standard production type. Steel 360 degree retainer loops one-quarter (1/4) inch thick by two (2) inches wide minimum, must be positioned at the front and rear of shaft, within twelve (12) inches of each universal joint.
- 5.) Overall car minimum weight must be maintained at all times (see “Weight” for specifications). The car will be weighed with driver located in seat. No allowance for gas/water after race. Reduction of

left side weight and/or overall weight disadvantages may be instituted individually to better equalize the competition. SST/WCIS Official decisions and scales are final.

- 6.) Hoods must be flush to windshield, no openings.
- 7.) Boldly labeled fuel and electrical safety shut off switches are to be in reach of driver and safety crew.
- 8.) Mirrors allowed. 28 square inches maximum and will be removed on an individual basis by track officials if used for the wrong reason.
- 9.) Throttle - Two return springs mandatory.
- 10.) Small fire extinguisher must be securely mounted within reach of the driver and safety crew.
- 11.) All team members must read and sign release forms prior to entering WCIS for practice or competition.

## **J. OVER COMPETITIVE RACE CARS**

- 1.) The idea behind this division is to keep chassis and engines as stock as possible in order to hold expenses down. While the above rules offer a good outline, every item cannot be covered by a written rule. If you want to run anything not covered in the rules above, ask first. The officials and management reserve the right to adjust rules to make the class more competitive (example: 50 lbs. weight disadvantage after 2 wins, 25 lbs. per additional win). A division with several winners and strong competition will be subject to WCIS Official decisions based on weight disadvantages. Teams with different home track rules may be assessed and penalized with a disadvantage to equal out competition as the division is developed. Be patient and have fun.