

## **2010 POWER STOCK RULES**

Revision April 16, 2010

This class of car is for the economically minded entry-level racer, with minimum modifications, most being safety related. American made OEM stock production rear wheel drive passenger cars with complete OEM stock magnetic steel bodies and frames. Cars and all components must be OEM stock production, OEM stock appearing, in OEM stock location with no alterations unless specified in the rules. No unibody cars, Camaros, Firebirds, Mustangs, Novas etc.

### **CAR BODIES**

- A. No aluminum, fiberglass, composite or homemade body part substitutions. 1989 and older, rear wheel drive, full frame car
- B. No aftermarket door or rocker panels.
- C. Car bodies including hoods, dashes, roofs, and trunk lids must remain completely OEM stock in OEM stock position and may not be gutted.
- D. Firewalls must be OEM stock and in OEM stock position.
- E. Front wheel wells may be removed.
- F. No altering or channeling of frame or body.
- G. Trunk area and taillight openings must be completely sealed. Trunk floors must be complete and OEM stock magnetic steel.
- H. No aerodynamic devices such as fixed or moveable skirts, side skirts, flat tops, spoilers, slant roofs, slant windshields, or barriers to modify air flow under car. No wings or vertical stabilizers.
- I. Doors must be welded or fastened shut.
- J. Outer 1" square rub-rail next to the body from front to rear wheel wells is permitted.
- K. No functional hood scoops. No radiator fill holes. No trimming on hoods.
- L. Front and rear bumpers must be OEM stock assemblies in OEM stock location. No gutting of bumpers. No reinforcing or bull work. Do not trim bumper ends with torch or saw. Heat and bend them if necessary to protect from cutting tires or hooking other cars.
- M. Bumper to fender plates mandatory, 1/8" thick by 6" high and only long enough to connect bumper and fender.
- N. No aftermarket or homemade nosepieces, wind deflectors or air dams.
- O. Bumpers must be welded and chained.
- P. Any repairs made to trunk floors must be a minimum 20-gauge magnetic steel.

### **GLASS**

- A. All glass must be removed except windshield.
- B. A front windshield is mandatory.
- C. OPTIONAL Polycarbonate windshield of .125" minimum thickness and two window braces in center of windshield is allowed.
- D. One rear view mirror with only one focal point mounted inside of car. One side mirror with only one focal point. No convex mirrors.
- E. All other windows must remain open.
- F. All headlights, tail, signal, marker and brake lights must be removed and all holes covered with magnetic steel or aluminum. Aluminum may be used to cover the items listed here in " F:" only.

### **INTERIORS**

- A. All OEM stock floorboards must be left intact, except where necessary for roll bar clearance.
- B. Dashboards may be removed. A tinned dashboard may be substituted however the area must be open for inspection. Remove all seats, moldings, gauges, and wiring that are nonessential.

### **SEATS & SEATBELTS**

- A. An aluminum racing seat is mandatory.
- B. Seat back must be mounted securely to the roll cage.

### **ROLL BARS (Refer to diagram this section)**

- A. Material used must be a minimum of 1-3/4" diameter magnetic steel round tubing with walls not less than .090" thick. Six point roll cage is mandatory. The main upright bars must be welded directly to the frame. They must be back braced from the top of the main upright bar to the rear car frame at a 45-degree angle but not beyond rear axle.
- B. Some type of X-brace between main uprights must be installed. Roof bars are optional.
- C. No bracing beyond front or rear firewalls. No diagonal roll bars, except for main upright "X"-ing.
- D. All welding must be electric.
- E. No pipe fittings, square tubing, galvanized pipe, exhaust pipe or conduit pipe used as roll cage structure. (1" square tubing may be used for seat structure and seat belt anchoring structure only.) See diagram this section.
- F. All roll bars within drivers reach must be padded. (Longacre type or equivalent is suggested).
- G. Left inner door panel may be trimmed for door bar clearance; ends of dash may be trimmed for halo upright bars only.
- H. A magnetic steel doorplate is mandatory, minimum 1/4" thick x 12" high, extending at least 6" past the front and rear of driver's door. Doorplate must be welded and bolted in place.

### **CHASSIS & FRAME**

- A. OEM stock rear wheel drive chassis and frame only. No cutting, grinding, welding, or lightening. Officials must approve any chassis or frame repairs. No channeling or boxing of frame rails. No reinforcing of any kind.

## STEERING

- A. Steering must be OEM stock and in OEM stock location.
- B. No steering ratio multipliers.
- C. Center of steering wheel must be padded. OEM stock steering column only. Removable racing steering wheel optional.

## SUSPENSION

- A. Suspension must remain completely and strictly OEM stock. No welding, drilling, buffing, cutting, grinding, or other modifications.
- B. No heim or mono ball type joints, no aftermarket or homemade parts.
- C. All control arms must remain OEM stock unaltered and in OEM stock location, i.e. right side arms on right side of car. This also includes but is not limited to stock OEM replacement ball joints.
- D. Upper and lower control arm bushings must be OEM stock. No steel or offset bushings.
- E. No pan hard bars, coil over shock units, small diameter springs, sliders, struts, additional control arms that are not OEM stock items.
- F. Shock absorbers must be in OEM stock location and mounting only. No extra shocks. Maximum manufacturers suggested retail price of any shock absorber \$50.00. No aluminum body shocks. No mixing of hydraulic or gas shocks. Shocks must be the same length and type side to side. No adjustable shocks.
- G. No weight jacks or adjustable wedge setting devices.
- H. No remote adjustable suspension or other unusual devices.
- I. No rear sway bars.
- J. No cambered rear ends, axle tubes, spacer plates, etc.
- K. Magnetic steel OEM stock spindles only.
- L. Magnetic steel OEM stock front hubs only
- M. Maximum camber (+ / -) 1-1/2".
- N. Springs must be a minimum of 12" full height with a maximum of 1 1/2" metallic spacers. This metallic spacer must be the same thickness on each side. Spring rubbers are not permitted. Rear springs must be "pigtail" style.
- O. Springs must be identical side to side, height, diameter, coil thickness, and load capacity (measured in pounds per square inch of pressure).
- P. Stock sway bar only; maximum 1" thick. Sway bar to control arm links must be OEM type or threaded rod w/steel washers and double nuts.
- Q. No Bump Stops allowed.

## BRAKES

- A. Brake system must be OEM stock conventional hydraulic type. No ABS (Anti-lock brake systems)
- B. OEM stock magnetic steel brake rotors only
- C. Must have functional and working OEM stock hydraulic four-wheel brakes.
- D. No brake bias adjusting units.
- E. OEM stock magnetic steel single piston calipers only.
- F. No brake fluid re-circulator or fluid pumps.
- G. Rear brakes shall be drum style only.
- H. OEM stock brake and gas pedal assembly; must be in OEM stock location and in OEM stock arrangement.

## WHEELS

- A. Production steel racing wheels required; maximum width bead to bead is 8" (7" rims allowed).
- B. Wheels with less than 3" backspace not allowed. No shims or wheel spacers allowed. **Minimum backspace allowed 3"**.
- C. Over sized racing lug nuts mandatory on all wheels.
- D. All wheel studs and lug nuts must be of magnetic steel.

## TIRES

- A. Spec Tire Only: Hoosier Comanche 890

## WHEELBASE

- A. Cars utilizing motors 315 cu. in. and larger - Minimum wheelbase 110"
- B. Cars utilizing motors 314 cu. in. and smaller – Minimum wheelbase 105"

## WEIGHT

- A. No ballast weights.

## GROUND CLEARANCE

- A. All measurements will be performed with the driver in the car, as raced.
- B. Minimum ground clearance 6", excluding exhaust and lower control arms.
- C. Minimum 10" ground clearance behind rear axle.

## ENGINE RULE

- A. Engine must be magnetic steel OEM stock production 305 to 360 cu. in. with maximum over bore of .040" only, and in OEM stock position. Stock bore to stock stroke only. No hybrid bore & stroke combinations. No engine interchanging; Ford to Ford, GM to GM, etc.
- B. OEM stock cast iron street production heads only. No turbo, bow tie, camel back or equivalent, angle plug, or any other performance oriented heads. This includes Chevy X castings and all small chambered Chevy heads, Ford N heads,

Chrysler W-1 or W-2 heads and any marine based castings. Chevy heads must have a minimum of 72cc's. Refer to Chevy head casting list following this section.

- C. No titanium valves or valve retainers. Must be magnetic steel
- D. Combustion chamber intake and exhaust ports must be OEM stock original "as cast" configuration. No angle milling.
- E. Any evidence of any sanding, polishing, relieving, grinding, porting, chemical treating, ceramic work, abrasive blasting, alteration to the original form or the addition of material to the ports or combustion chambers is strictly forbidden.
- F. No external sanding, grinding, removal of ID numbers or symbols.
- G. Maximum valve diameter (Chevy only) measured across the face: intake 1.94", exhaust 1.50".
- H. OEM stock production valve spring diameter only
- I. Maximum compression ratio 9.0:1
  - 1. Compression ratio will be determined by use of "Whistler" test equipment. "Whistler" reading will be final.
- J. No chemical or ceramic work allowed in internal area of intake manifold or heads.
- K. No multiple angle valve grinds. No grinding or cutting below the valve seat area.
- L. 100% OEM stock cast iron intake and exhaust manifolds. Two-barrel intake manifolds only.
- M. No Chevy bow tie intakes.
- N. No GM center dumps, or high performance exhaust manifolds.
- O. Flat tappet hydraulic lifter magnetic steel camshafts only. Maximum rocker ratio (Chevy only) 1.5:1
- P. Maximum valve lift GM .420", Ford and Chrysler .480". VALVE LIFT MEASURED AT CAM, THEN MULTIPLIED BY ROCKER RATIO WITH ZERO LASH.
- Q. No mushroom or roller lifter type cams, no automatic cam timing devices, no belt drive cams, no roller rockers, and no Rhodes lifters.
- R. Flat top or dish pistons only. No portion of piston may protrude above the block. Stock valve relief in piston only
- S. No titanium, plastic or aluminum rods, blocks, or heads. No carbon fiber or ceramic engines or heads.
- T. No external oil pumps or dry sumps.
- U. No spacers between cylinder heads and exhaust manifolds, or cylinder heads and intake manifold.
- V. No Chevy Vortec/L-31 heads.
- W. OEM stock production magnetic steel connecting rods and crankshafts only. No knife edging or polishing crankshafts.
- X. Oil pan must have a 1" access hole for viewing of connecting rods.

#### **CARBURETION**

- A. Carburetor must be approved. Approved is a Holly model #4412 with a venturi size of 1-3/8" and maintaining a throttle bore maximum size of 1-11/16". The rework guidelines are as follows:
  - 1. Body of Carburetor:
    - a. No polishing, grinding or drilling of holes.
    - b. Gasket surfaces may be machined for improved sealing.
    - c. Any attempt to pull outside air other than what flows through the venturi is not permitted.
  - 2. Choke:
    - a. The choke may be removed; all remaining holes must be sealed.
  - 3. Choke Horn:
    - a. Choke horn may not be removed.
  - 4. Boosters:
    - a. Boosters may not be changed. Size and shape must be OEM unaltered.
    - b. Height and location of booster must remain in OEM location.
  - 5. Venturi:
    - a. Venturi must be OEM unaltered. Casting ring must not be removed.
  - 6. Base Plate:
    - a. Base plate must be OEM unaltered.
  - 7. Butterflies:
    - a. Butterflies must be OEM unaltered.
    - b. Idle holes may be drilled in butterflies.
    - c. Butterfly screw ends may be cut even with shafts, but screw heads must remain OEM size.
  - 8. Throttle Shaft:
    - a. Throttle shaft must remain OEM unaltered.
  - 9. Jets:
    - a. Jets may be changed. No dial-a-jet devices.
- B. Choke plate and shaft may be removed. Vacated holes must be sealed.
- C. Cable throttle linkages not recommended
  - 1. Throttle linkage may be altered to non-cable type. If altered, a throttle toe release is mandatory.
- D. No carburetor hats or airflow enhancing devices.
- E. Any attempt to pull outside air other than what flows through the venturi is not permitted.
- F. OEM stock air cleaner and OEM stock size air filter element only. Front may be covered.
- G. Approved spacer is the Mr. Gasket #1937.
- H. A gasket thickness of 1/8" maximum for top and bottom gaskets.
- I. Functional stock style air cleaner only. No carb hats or airflow enhancing devices.
- J. No ram air ducting
- K. Maximum 4" paper element only.

#### **FUEL**

- A. OEM stock gas tank must be removed and replaced with 6 gallon maximum, magnetic steel gas tank, securely mounted by two metal straps in the trunk, in the furthest most forward position between the frame rails as to be protected from rear end collisions. (Boat gas tank is commonly used.)
- B. An approved 12-gallon fuel cell is optional, mounted as described in A: above.

**EXHAUST & MUFFLERS**

- A. Exhaust system must extend past the driver and exit underneath the car, pointing toward the ground with a maximum turn down length of 4".
- B. Maximum 2" O.D. exhaust pipes. No cross over pipes.
- C. The approved mufflers are Exhaust Pros Tough Pak #3518SO, 3518ST, or 3518DO.
- D. Mufflers must be attached at both ends to the car with two hangers and two clamps per muffler. Inlet and outlet must be mounted correctly.
- E. Mufflers must be mounted at the end of the exhaust system so that the muffler can be inspected.
- F. Mufflers may not be internally altered in any fashion.
- G. No exhaust leaks.
- H. No exhaust or header wrap.

**COOLING SYSTEM**

- A. Radiator must be mounted in OEM stock position.
- B. OEM stock factory production radiator only
- C. Fan shroud mandatory
- D. Radiator overflow of one-gallon minimum capacity is mandatory. Must be securely mounted in engine compartment, in the front corner on the radiator core support ONLY!! Overflow exit must remain in the engine compartment.
- E. No electric fans.
- F. Aluminum radiators will be allowed and must be mounted in stock manor in 2008.
- G. No aluminum water pumps, aluminum pulleys are allowed.

**ELECTRICAL SYSTEM**

- A. Battery must be securely mounted behind driver's seat in a marine-type battery box, with a steel-retaining device, (no plumbers strap or perforated straps).
- B. OEM stock factory ignition system only. Maximum 12 volt electrical systems only. No aftermarket ignition systems or parts.
- C. No dual point distributors.
- D. Ignition modules and coils must be OEM stock.

**CLUTCH**

- A. No mechanical clutches.

**TRANSMISSION & DRIVELINE**

- A. American made OEM stock passenger car transmission and rear ends only, in OEM stock location.
- B. Rear end housing must be OEM stock for make and model of car.
- C. Solid axles only, no gun drilling
- D. Must have working differential (free of bind). No posi, torque sensing, limited slip or welded differentials. No spool rear ends.
- E. Stock OEM automatic transmissions only. Must have working torque converter, stock diameter for model. No lockup torque converters.
- F. No power glide transmissions.
- G. Transmission must have all forward and reverse gears in working order.
- H. Driveshaft must be one piece magnetic steel, painted white, and have two safety hoops mounted 12" from each end of driveshaft.

**MISCELLANEOUS**

- A. The purpose of the claim rule is to provide a safety valve to help keep the class competitive and to keep the cost of racing down. (See claim rule in Section 8 for details)
- B. All drivers are required to have a working scanner that is tuned to the track frequency of 461.2000 MHz.
- C. No lightweight bolts or fasteners allowed
- D. Elko Speedway uses automatic timing and scoring for the Power Stock Division. Each car must purchase or rent an AMB transponder. Transponder mounting location for the Power Stock Division is 14 feet back of the forward most point of the front bumper of the car. The transponder/transponder clip must be securely mounted to the frame with a clear sight line to the racing surface. The rechargeable type transponder is strongly recommended.

**Power Stock Chevy Head Casting List Approved List:**

<i>Casting</i>	<i>Valve Size</i>	<i>Chamber</i>	<i>Years</i>
3998993	1.94/1.50	76CC	68-79
3973487	1.94/1.50	76CC	68-79
3932441	1.94/1.50	76CC	67-79
3917293	1.72/1.50	75CC	
462624	1.94/1.50	76CC	76-87

462624	1.72/1.50 or 1.94/1.50	76CC	75-86
376445	1.94/1.50	76CC	
333882	1.94/1.50	76CC	70-80

2.02/1.65 valves could come in this head casting. Please make sure you are utilizing the smaller valves. "X" Casting is not allowed.

**AMENDMENTS:**

Cruiser cars may compete in the Power stock division with the following modifications:

1. Must use racing wheels.
  - a. 7" or 8" wheel width only.
  - b. Minimum 3" back-set.
2. Must use used Hoosier 890 tires.
3. Car must meet all other Uni-car rules.