

# ELKO!

**Racing • Eve of Destruction • Drive-In**

## POWER STOCK

*\* These rules may be amended at the official's discretion. \**

No additions, subtractions, alterations, or non-OEM type parts allowed unless specifically allowed in the rules.

1. **Models:** Stock, American made (Ford, GM or Chrysler), off the street, rear wheel drive, passenger cars as purchased from the factory with no modifications or alterations except as specifically allowed in these rules. No convertibles, station wagons, trucks, jeeps etc. Sedans are strongly recommended. Wheelbase must not be less than 108". No Camaros, Dusters etc.
  - a. Vehicles with OEM stock fuel injection are allowed with the tech officials pre-approval.
  - b. Special safety rules will apply for these newer cars.
    - i. Fuel tank in front of rear axle may remain in stock position.
    - ii. Electric fuel pump must have a safety shut-off switch located behind the driver.
  
2. **Bodies:** No cutting of wheel openings, hoods, etc. If dash is removed, a 1 3/4", .090 thick pipe must be welded from A-pillar to A-pillar. No reinforcing of any body panels. The stock body to frame mounts may be removed. 'Regulation Ice Hockey Pucks' must be used if the stock body mounts are removed. Body repairs allowed on outer door and quarter panels from the bodyline down, with 18 gauge (.050") steel. A 1" access hole must be provided for measuring the repair panel thickness. Front inner fenders may be removed. Doors must be welded or chained shut. Doors may only be welded on the rear edge, with a maximum 8" bead. Sedans may remove the driver's door window frame. The doorplates must be a minimum of 12" tall by 1/4" thick, and extend 6" ahead of and 6" behind the door seams. The doorplates must contour the body, and may be of more than one piece and welded together. The doorplates must be bolted to the car and may be welded also. The front and rear may be welded the height of the doorplates. The top and bottom may be skip welded and have a total of 16" of bead. The doorplate may not be braced to the frame. The cloth interior must be removed. No interior metal may be removed. Driver's door may be gutted for side bar clearance only. The rear seat must be removed and all holes to the trunk area covered with sheet steel. Holes in the floor and firewall must be covered with sheet steel. Exterior trim must be removed. Hoods must be secured with 2 hood pins not to exceed 8" in length. Trunk springs must be removed. Maximum spoiler height is 5" measured from the deck lid up, along the spoiler surface. Maximum surface area of the spoiler is 300 square inches. Spoiler must be single plane, and centered on the car. Full size Monte Carlos and Chevelle/Malibu may gut the hood. All added interior tinning must be removed. (Except hole patching.) Cars with right side door interior metal removed must either: replace the door with a complete door, or install 3 properly braced door bars to the roll cage and/or install a door plate. No side skirts.  
**Frame repair:** Steel repair pieces may be no more the 1/4" thick X 24" long and no taller or wider than the section of frame being repaired. The repair piece must have a 5/8" hole drilled through the face for inspection. Only 2 sides of the frame section to be repaired may be plated. No other repairs to the frame may be done within 24" of a repaired section.
  
3. **Bumpers:** Stock bumpers for model of car. All cars with shock type bumpers must secure the bumper to the frame by welding or bolting chains or straps to the bumpers so they won't fall off. Minimum chain size is 1/4" rod. Bumper straps connecting the bumper to the fenders are required and must be no more than 6" wide by 12" long by 1/8" thick steel. No cut-off bumper ends. No trailer hitches.
  
4. **Glass:** The windshield must remain intact. Minor cracks may be taped. The windshield may be replaced with a properly braced 1/8" thick Lexan. (2 braces near center) All side windows and rear window must be removed. Maximum 2 mirrors per car, any location. Interior: max 36 sq. in., single focal point. Exterior: 4" diameter round, single focal point, no convex or concave.

5. **Roll Cage:** A 4 or 6 point roll cage, with optional halo, must be constructed of 1 3/4" roll cage tubing with a minimum wall thickness of .090". Tube ends must be welded to the car frame. Unibody cars must secure the cage to 10" X 10" X 3/16" sandwich plates bolted through the floor. No roll bar may extend in front of the gas pedal, or behind the rear axle. Door bars may be added to both sides. Inside door panels may be cut for door bar clearance. All welds must be made with an electric welder. Bars may not run diagonally through the driver's compartment or between the driver's seat and the right side of the car.

6. **Engine:**

**Standard Engine:** The engine must be completely stock, cast iron, mass-produced for street use. Engines can be, Ford to Ford, GM to GM and Chrysler to Chrysler only. Maximum displacement is 350 CID plus .060" overbore for GM, 351 CID plus .060" overbore for Ford and 360 plus .060" overbore CID for Mopar. OEM firing order only. Maximum compression ratio is 9.5 to 1. Stock type steel or cast iron crankshaft only with no modifications except for balancing. Must be equivalent weight to OEM crankshaft. Stock type steel connecting rods: cap screw bolts allowed, no polishing or de-slagging of beams allowed. Heads and block must match year of body and chassis. No inter-marrying of engine parts. GM 305 heads may only be used on a 305 CID engine. The intake and exhaust manifolds must be unmodified OEM stock cast iron. No aluminum, super duty, made for racing, etc. parts. No Corvette center-dump or other performance manifolds. Flat tappet hydraulic camshaft and lifters only. Stock type rocker arms only. No upper end windage trays or oil deflectors in valley or valve covers. Maximum valve size: GM: 1.94 intake, 1.50 exhaust. 'Smogger' heads only. No roller rocker arms. Maximum valve lift is, .420" for small block Chevy, and .460" for all other engines. Screw-in studs and guide plates allowed. Aftermarket valve covers, breathers and oil pans are allowed. Oil pan inspection hole is required, must be located on the driver's side inline with the 2nd or 3rd rod journal or crankshaft, with a 3/4" npt inspection hole in pan on opposite side of windage tray. No ducting to air cleaner. Aluminum crankshaft & water pump pulleys are allowed.

Approved Chevy Head Listing:

Casting:	Valve size:	Chamber:	Years:
3998993	1.94/1.50	76CC	68-79
3973487	1.94/1.50	76CC	68-79
3932441	1.94/1.50	76CC	68-79
3917293	1.72/1.50	75CC	
462624	1.94/1.50	76CC	76-87
462624	1.72/1.50	76CC	75-86
376445	1.94/1.50	76CC	
333882	1.94/1.50	76CC	70-80

EngineQuest part # CH350I (IMCA / Wisconsin spec head)

Other 'Smogger' type heads may be approved on a case-by-case basis.

**305 Engine:** Engines must be completely stock and in stock position. Maximum displacement is 305 CID plus .040 overbore. Bore and stroke must remain stock. Maximum compression ratio is 9.5 to 1. Stock rods and crankshaft. Oil pan inspection hole is required, must be located on the driver's side in line with the 2nd or 3rd rod journal or crankshaft, with a 3/4" npt inspection hole in pan on opposite side of windage tray. Stock type steel or cast iron crankshaft only with no modifications except for balancing. Must be equivalent weight to OEM crankshaft. Stock type steel connecting rods: cap screw bolts allowed, no polishing or de-slagging of beams allowed. Stock pistons only; no forged, domed or performance piston. Pistons must be at least .020" below top of deck at top-dead-center. Cylinder heads must be stock production 305 cast iron heads. No Vortec, FI, L-31 or high performance heads allowed. Stock GM unmodified cast iron intake manifold to accept a Rochester 2GC carburetor or Quadra jet carburetor. (see section 10) Intake valve maximum head diameter is 1.85". Maximum exhaust valve head diameter is 1.5". Minimum valve stem diameter is 11/32". Minimum combustion chamber size is 56cc. Flat tappet hydraulic lifter cam only with a maximum lift of .420", measured at the valve. Hydraulic lifters only. Aftermarket valve covers, breathers and oil pans are allowed. No upper end windage trays or oil deflectors in valley or valve covers. Air cleaner must be stock and in stock position and configuration. Air inlet extension may be removed. No ducting to air cleaner. Alternator and power steering pump must be in place with belts on. No engine part may have any material added or removed to change the performance of the part, or the engine as a whole.

**Crate Engine: 602 GM Crate Motor:** Must be purchased NEW from a GM dealer. Furlong Chevrolet in Northfield or Suburban Chevrolet in Eden Prairie are recommended.

Motors may NOT be rebuilt or repaired.

Inspection plug in the oil pan is mandatory. Only Murgic's Auto is authorized to perform this work and will reseal the pan with their seals.

Exhaust and carburetor rules are the same as 2015.

Mr. Gasket carburetor adapter, part #1932, must be used with a Quadra-jet carburetor.

Upper and lower adapter gaskets may be up to .065" thick each.

MSD Soft Touch rev control, part #8727CT must be used. Max 6400 RPM.

Pump premium fuel only. NO RACE FUEL.

No weight break with a Crate Motor. Percentages will remain the same.

Valve spring and rocker arms may be replaced as maintenance items, and must be GM OEM per 'Circle Track Crate Engine Technical Manual'.

7. **Electrical:** Stock 12-volt electrical system only. The battery must be mounted in the engine compartment on the right side of the firewall, or behind the driver's seat. The battery must be secured in place by, at a minimum, 1/8" thick by 1" wide steel strapping and 5/16" grade-5 hardware. If the battery is behind the driver's seat, it must be in an approved battery box with a cover. Stock size battery for the car. A master disconnect switch, located behind the driver is suggested. OEM stock 12-volt ignition system only; no performance ignition coils or modules. No brake lights allowed.
8. **Cooling System:** Aluminum radiators allowed. A fan shroud is required over the top 1/2 of the fan. A coolant overflow container must be mounted in the engine compartment. Water only in the cooling system; NO ANTIFREEZE.
9. **Exhaust:** Exhaust must extend back past the driver and exit underneath the car. 2 1/2 "OD maximum exhaust pipe diameter. Decibel limit for each car is 100 dB, measured from the middle of the grandstand.
10. **Fuel System:** The carburetor must be OEM for the type of engine used only. Ford and Chrysler cars may use the 500 cfm 4 bbl. Edelbrock carburetor (model #1403 or #1404) with no modifications except jets, metering rods and metering springs. No special order, optional equipment, or other high performance carburetors, including 'truck' and Holley carburetors. No modifications to the carburetor allowed. The choke plate and choke hardware may be removed. No fuel injection of any kind. Stock type fuel pump only; no electric fuel pumps. No fuel lines in the driver's compartment.
11. **Fuel Tank:** The stock gas tank must be removed. A fuel cell or marine tank must be securely mounted on or above the trunk floor, using steel straps, rods or bars. The tank must be mounted centered in the trunk side to side and as far forward as feasible to be protected from rear end collisions. A fuel shut-off valve must be installed near the fuel tank, and be clearly marked 'ON' & 'OFF'. Refilling must be done by opening the trunk; quickfill doors are not allowed. No plastic fuel tanks. No homemade fuel tanks after the 2012 season. Maximum fuel tank size is 12 gallons.
12. **Drive Line:** Any factory production automatic transmission with functional torque converter as long as it remains Ford-to-Ford, GM-to-GM and Chrysler-to-Chrysler and has a minimum diameter of 11". No 2-speed automatic transmissions allowed in cars newer than 1968. 3-speed and 4-speed/overdrive automatic transmissions only. Add-on transmission coolers allowed. Tubing to cooler must be steel. Maximum of 4" of hose per line at the cooler, with 2 hose clamps at each hose connection point. Any type shifter allowed; must be able to engage all gears and park. No locked or 'posi' differentials including alterations to make the differential lock at any time. No camber, toe-in or toe-out in the rear axle. Moser type aftermarket axles strongly recommended. The driveshaft must be painted white, and have a 'U' hanger.
13. **Suspension:** All suspension components must remain completely and strictly stock for make, model and year of car. Urethane control arm bushings allowed. No special order, police, taxi or other performance suspension components. OEM or stock replacement springs only. No racing or rated springs allowed. Must be the same size left and right. Maximum rate: #900 per inch. Maximum front spring wire diameter is .750". Springs may be cut, but must have the same number of coils and be the same height side to side. Non adjustable spring spacers allowed with a maximum height of 2". Spacer height must be the same side to side on the front. Rear spring space height may be different in the rear. No wedges, shims or any type of adjustable suspension devices. OEM or replacement shocks must be in the original position and use the original mounts. Retail price of shocks is \$45.00 or less each. QA1 EC series shocks allowed in 2015; required in 2016. Maximum sway bar diameter is 1 1/8". Urethane sway bar bushings are allowed in the link ends only. Sway bar links must be the same length left and right. No rear sway bars or components. Maximum camber is: 1 1/2" on right front, 1/2" on left front.

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- 15. Steering:** Steering must remain completely and strictly stock. Steering wheel may be removable. Steering wheel center must be padded. Stock type replacement parts only. An aftermarket 'Hobby Stock' style power steering pump may be used. The remote reservoir type is recommended to help with fluid cooling. Power steering coolers allowed, but may not be mounted in front of the radiator or rear of the firewall.
- 16. Brakes:** Brake system must remain completely stock. Drums and rotors must be stock size for car. Calipers and wheel cylinders must meet OEM specifications for car. One brake bias adjuster allowed. All 4 brakes must work. Coleman type 2 piece hub / rotor assemble required on the right front on mid size cars.
- 17. Tires:** Hoosier 850 tires only. No use of tire softener or altering of the tires in any way.
- 18. Wheels:** Stock factory steel wheels or racing wheels with an offset of not less than 3" only. Maximum wheel width is 8". All 4 wheels must be 15" diameter. 1" lug nuts are required on all wheels. 5 lug nuts are required on all wheels.
- 19. Weight and Ride Height:** Minimum ride height is 4 1/2" at the front crossmember and the rear lower suspension mount points. See weight chart for official weight. All ballast must be painted white, and have your car number on them. No piece of ballast may be less than 5 pounds. All ballast must be securely mounted to the frame or roll cage only. No ballast may be in the driver's compartment.
- 20. Seat:** An aluminum-racing seat is strongly recommended. Seat belts must be used. A 5-point racing harness is strongly recommended.
- 21. Safety:** Driver's window net is required. A fully charged fire extinguisher, securely mounted, within the drivers reach, is required. See also General Rules for additional safety equipment requirements.

## **Amendments:**

05/12/18:

- 1/2" Rod may be used on Right Front for sway bar adjustment.
- Optional fuel cell protection is allowed.