**2012 Rattler Truck Division Rules**

**Rules and Specifications**

**Weight -** All specified weight requirements will be with driver, fuel, oil and water prior to racing.

1. Maximum allowable left side weight will be 56% of total weight with driver.
2. Minimum weight 2,800 pound with driver after race, one pound per lap will be deducted.
3. Additional weight may be added in block form of no less than 5-pound blocks (no pellets). Added weight must be securely bolted in place. Dislodged weight cannot be returned to car for weighing after race. All added weight must be painted white with truck number painted in red or black. Any lost weight will result in a $10 per pound fine to the driver.

**Interior:**

1. Truck interior must be complete and shield driver from ground, engine compartment and fuel cell area. Firewall must be no less than 24-gauge metal and fully seal driver from engine compartment.
2. Master disconnect switch must be located on dash and easily accessible to driver as well as from outside left window opening.
3. Quick release steering wheel is mandatory.
4. A window net must be installed in the left side door glass opening. The window net must be a rib type, made from nylon material with a minimum 1" square opening between the ribs. All window nets must have quick release mechanism and be welded to roll cage.
5. Rear view mirror permitted inside of truck only.

**Body:**

1. The truck body must be acceptable to Officials at all times. All body parts must have a Minimum clearance of 4" prior to race with fuel, oil, and water, without driver. No truck will be allowed to start a race without a full body.
2. Bodies will be fiberglass or PVC (rubber) replicas of the standard cab. No carbon fiber parts allowed.
3. Approved bodies: 1997-2009 Chevrolet C10/ C1500/ Silverado, 1997-2009 Ford F-150, 1997-2009 Dodge Ram, 2004-2009 Toyota.
4. Body must be mounted in the center of the frame and fit the 108-inch wheelbase of truck with wheels in center of wheel wells.
5. Minimum roof height must be 55 ½ ", measured from a point in the center of the roof 10" behind top of windshield.

Maximum height at rear of roof is 56"; maximum variance from a point 10" behind windshield to rear of roof is ½ ".Minimum rear deck height must be 36", measured where rear deck meets the spoiler. Minimum window opening must be at least 16".

6. Body must maintain original configuration, size and shape.
7. Front and rear window opening must be covered with a minimum 1/8" inch thick clear polycarbonate. Clear polycarbonate must cover entire opening and should follow the contours of the body. Clear polycarbonate (1/8") side window vents are optional and cannot exceed 9" in height.
8. Front windshield opening should have a minimum of two 1" by 1/8" straps located in the center of the windshield behind the clear polycarbonate and placed no closer than 3" apart.
9. Hoods must remain flat. Positive fasteners must be installed, either a minimum of four hood pins or two hood pins or two rear hinges.
10. Full rear deck coverings are mandatory and must completely cover the rear of body. Bed coverings can be either or sheet metal. The rear half of the lid must be able to open for inspection purposes. Positive fasteners must be used on left and right side to secure opening position of the cover.
11. Front air dams must maintain original configuration and all body support brackets must be located inside the body structure.

12. Rear spoiler is mandatory. Maximum 6” x 60”. No forward rudders or mounting brackets will be permitted. Minimum 4 mounting brackets or supports on the backside of spoiler. The maximum spoiler height is 44" from the ground, measured in the center of the spoiler.

**Engine:**

*Option #1*

1. General Motors crate engine only, part # 88958602 and # 88958603. All GM sealing bolts must remain as installed from General Motors. Removal of sealing bolts will result in disqualification.
2. Claimer rule on an engine is $3500.00 after the race, plus $500.00.
3. Only drivers finishing the race, their crew chief or owner may claim a General Motors crate engine part # 88958602 from a driver finishing the race ahead of the claiming driver. The claim will be limited to one truck and must be made within 10 minutes after completion of the feature event with cash only to Chief Tech Inspector. Not included in the claim are carburetor, water pump, distributor, ignition, pulleys, plug wires, fuel pump, flywheel, pressure plate and clutch. A claim fee will not be accepted should Officials determine the claim fee has been made on someone else’s behalf or the fee is from more than one party. Failure to pull and sell a claimed engine will result in the driver in question forfeiting all purse and points for the event.

*Option #2*

1. General Motors crate engine only, part # 88958604. All GM sealing bolts must remain as installed from General Motors. Removal of sealing bolts will result in disqualification.
2. General Motors crate engine part # 88958604 must run all GM specs as delivered from the manufacturer.
3. Claimer rule on an engine after the race is current cost of the motor, plus $500.00.
4. Only drivers finishing the race, their crew chief or owner may claim a General Motors crate engine part # 88958604 from a driver finishing the race ahead of the claiming driver. The claim will be limited to one truck and must be made within 10 minutes after completion of the feature event with cash only to Chief Tech Inspector. Not included in the claim are carburetor, water pump, distributor, ignition, pulleys, plug wires, fuel pump, flywheel, pressure plate and clutch. A claim fee will not be accepted should Officials determine the claim fee has been made on someone else’s behalf or the fee is from more than one party. Failure to pull and sell a claimed engine will result in the driver in question forfeiting all purse and points for the event.

*Option #3*

1. Engines Displacement: Chevrolet - 305 CID, maximum overbore .067, Ford - 302 CID maximum overbore .067, Dodge - 318 CID maximum overbore .067
2. Engines must be factory production OEM cast iron cylinder blocks built for standard production only (no aluminum blocks). Casting numbers must be unaltered and legible. Absolutely no internal portions of the engine may be painted or coated. Block decks may be strengthened and/or deburred. Blocks may not be offset bored and must maintain OEM type bearings in the main journals.
3. Only OEM steel or cast crankshafts permitted. No aftermarket steel, lightened, knife edged or otherwise racing crankshafts permitted. OEM stroke must be maintained.
4. OEM or OEM appearing after market rods permitted. Rods may not be polished or otherwise altered. Piston pins may be fitted or floated. No aluminum rods permitted. Rod length: GM 5.70 inch, Ford 5.16 inch, Dodge 6.12 inch. I-Beam only.
5. Flat top or dished pistons permitted Wrist pin must remain in OEM position. Cast or forged pistons permitted. No coating, painting or otherwise alteration of pistons permitted. Minimum deck clearance is .000".
6. Compression ratio of engine is limited to 10:5 to 1 max.

*Option #4*

1. LNS sealed motor - seals must remain as installed. Tampering with or removal of seals will result in disqualification.

**Camshaft:**

1. *Applies to Engine Option #3 Only:* Any manufacturer permitted. Maximum lift: Chevrolet .458", Ford .488”, Dodge - .458". All measurements must be at the valve.

**Lifters:**

1. *Applies to Engine Option #3 Only*: Only OEM or OEM-replacement lifters permitted. No solid lifters or altered lifters to perform as solid lifters permitted. No oversize lifters permitted. Anti-pump lifters are allowed.

**Rocker Arms:**

1. OEM rocker arms only permitted with OEM ratio: Chevrolet & Dodge 1.5, Ford 1.6.
2. General Motors crate engine part # 88958602 and # 88958603 must run GM 1.5 ratio rocker arms, roller rocker arm not permitted.
3. General Motors crate engine part # 88958604 must run all GM specs as delivered from the manufacturer.
4. Roller rocker arms permitted on Engine Option #3. No shaft type rocker arms permitted.

**Cylinder Heads:**

1. Chevrolet must be GM stock cast iron 305 cylinder head, Dodge must be stock cast iron 318 head, and Ford must be stock cast iron 302 head. No aluminum or Vortec heads permitted except L-30 type heads. Must retain original 2 valves per cylinder.
2. Valve size; Chevrolet - intake maximum 1.84", exhaust maximum 1.5", Dodge - intake maximum 1.78", exhaust maximum 1.469", Ford - intake maximum 1.781", exhaust maximum 1.469". Ford & Dodge may use same size valves as Chevrolet.
3. No special after market valve permitted and valves may not be canted in heads.
4. Absolutely no altering, polishing, porting, matching of ports, or acid washing allowed in any manner.
5. Studs may be pinned. Screw in studs permitted.

**Valve Springs:**

1. Valve springs must retain stock diameter & height. Spring seats may not be enlarged or otherwise altered. Maximum spring seat pressure limited as follows: Chevrolet 115 lbs, Ford 115 lbs, Dodge 130 lbs.

**Intake Manifolds:**

1. Only the following intake manifolds permitted with no substitutions allowed: Chevrolet Edelbrock #7101 or 7116, Ford Edelbrock #7121, and Dodge Edelbrock #7176
2. Absolutely no altering, polishing, porting, matching of ports, or acid washing allowed in any manner. No laser treating or micro holes allowed. Plenum may not be altered and no devices are permitted inside runners or plenum.

**Starter:**

1. Must start under own power. OEM type starters permitted.

**Carburetor:**

1. Engine / Carburetor Combinations are as follows:
a. General Motors crate engine 602 and 603 - Holley 650 4150 Model #4777 four-barrel or Holley 650 HP 4150-80541four-barrel. No alterations. **No carburetor spacer permitted**.
b. General Motors crate engine 604 - Holley 500 CFM model number 4412 two-barrel. No alterations.
c. Built Motor - Holley 500 CFM model number 4412 two-barrel permitted. No alterations.
d. LNS sealed motor - Holley 500 CFM model number 4412 two-barrel permitted. No alterations.
2. Body of carburetor - no polishing, grinding or drilling of holes permitted. No paint or any other types of coating other than from carburetor manufacturer are allowed inside or outside of carburetor.
3. Choke and choke horn may be removed, but all screw holes must be permanently sealed.
4. Booster size or shape must not be altered. Height must remain standard.
5. Venturi area must not be altered in any manner. Casting rings must not be removed.
6. Base plate must not be altered in shape or size.
7. Stock butterflies must be used and cannot be thinned or tapered. One idle hole may be drilled per butterfly. Screw ends may be cut even with shaft; screw heads must remain unaltered.

8. Throttle shafts must remain standard and cannot be thinned or cut in any manner. No silicone or epoxy allowed on throttle shafts.
9. Any attempt to pull outside air other than down through venturis is not permitted.
10. Throttle linkage must have at least 2 return springs. Throttle stop recommended.

**Carburetor Adapter:**

1. Only one non adjustable one-piece solid aluminum spacer permitted maximum 1" in height, with 1 gasket per side not to exceed .065" in thickness.
2. Spacer must have openings cut perpendicular, matching carburetor base, and no larger than base of carburetor opening. No taper or beveling permitted. No Open Spacers.

**Ignition:**

1. Aftermarket type distributor modules or coils may be used but must mount in OEM distributor location.
2. Multi-spark discharge boxes are permitted.
3. General Motors crate engine part #88958602, #88958603 and # 88958604. **MUST** run MSD distributor with MSD ignition box.
4. Only one MSD box will be permitted must be mounted on right side dash with chip facing passenger side window.
5. All wiring must be connected and sealed. All wires must be exposed and in plain view and easily traced by tech officials.
6. GM Crate Motors must use mandatory 6300 RPM Rev chip limiter. Competitors will be Responsible for proper rev limiter operation.
7. Only one battery permitted. Battery must be securely mounted outside and behind driver's compartment (frame rail).

**Air Intake:**

1. Air cleaner cannot be removed at any time during competition or practice.
2. Only round dry type paper element 14"-16" in diameter, maximum 4" in height may be used in air cleaner at all times.
3. Element may not be sprayed or soaked with any type of chemicals or liquids.
4. All air shall be filtered through element.
5. Air cleaner housing must be of metal type. Top of air cleaner must be solid, no holes.
6. It will be permitted to shield the front area of the air cleaner up to a maximum of one half the air cleaners' diameter and not wider than the height of the air cleaner filter.
7. Top and bottom of the air cleaner housing must be the same diameter. A maximum of a 1" lip from the air cleaner to the top and bottom edges of the air cleaner housing is permitted.
8. Nothing may direct or control the flow of air inside or outside of the air cleaner housing except the air cleaner element.
9. Cowl induction, air ducts or baffles will not be permitted on or leading to the air cleaner.
10. An opening 2.5" x 20" may be cut in the hood behind the carburetor with the back edge either meeting or a maximum of 1" from the windshield.
11. A fresh air deflector will be permitted and must be placed at the center of the leading edge of the windshield directly under the hood opening. The fresh air deflector must be made of aluminum and measure a maximum of 2" down and 2" forward by 20" in width with square bends and no radius or air flow devices, end caps permitted no larger than 2" by 2".
12. No sheet metal heat shields or any other type of hot air deflection device or air flow deflection device will be allowed past the backside of the radiator or in the engine compartment.

**Exhaust:**

1. Any type tubular header permitted must have single flange.
2. Exhaust system must exit behind driver and out right side.
3. No "X" pipes, "H" pipes, or balance tubes permitted. "Y" pipes permitted.
4. Exhaust Pipes: ***The options listed below reflect MAXIMUM inside diameter.***

*Option 1:* Two (2) 3.5” round pipes.
*Option 2:* Two (2) 2.5” x 4.0” oval pipes.
*Option 3:* One (1) 4.0” round pipe.
*Option 4:* One (1) 2.75” x 4.0” oval pipe.
5. Absolutely no boom tubes permitted.

**Fuel System/Cell:**

1. Maximum 22-gallon fuel cell must be must be mounted in steel container with a minimum of two protective bars made of 1" square tubing, protection braces wrapping around fuel cell from front, underneath and to back of cell and a rear protection bar of 1.75" tubing extending below the rear of frame and at least 1/2" below the bottom of fuel cell to cover the width of the fuel cell. Fuel cell and steel container must be mounted in center of frame and behind centerline of rear axle. Fuel cell and container must have a minimum of 9 inches clearance from the ground. No pressurized cells permitted.
2. Only one fuel line permitted to transport fuel from cell to pump. Fuel line must not run inside driver’s compartment. Electric fuel pumps prohibited. Only stock side block mounting mechanical pump permitted. After market fuel pumps are permitted but must be of same size and mount in stock location.
3. No icing, Freon type chemicals or refrigerants may be used in or near the fuel system or engine compartment. No cooling of fuel cell or fuel system.
4. Must use track fuel.

**Cooling System:**

1. Only block mounted belt driven water pumps allowed. Fan type optional. Fan shroud may not extend more than 2" past fan blades. Aluminum radiator permitted and must be mounted in front of engine.
2. Water only must be used in the cooling system. Any driver found using unapproved coolants must pay a $100 fine before driver can compete.

**Oiling System:**

1. Oiling system must be wet sump oiling system. Steel racing oil pans permitted. Remote filter allowed.
2. Minimum ground clearance from bottom of pan is 4 inches.

**Transmission:**

*Option #1*

1. Standard GM turbo 350, Ford C4 or C6, and Dodge 904 or 727 automatic transmissions allowed. Must have three forward gears and reverse. All gears must be working. Manual shift kits permitted. Reverse shift patterns permitted.
2. OEM type torque converters may be used. NO hollow converters allowed. Minimum ten-inch torque converters permitted. No exterior valve mechanism or band adjusters allowed.
3. Transmission coolers permitted. All cooling lines must be steel braided with screw in fittings. No rubber hoses or clamps allowed.

*Option #2*

1. Standard 3-speed or 4-speed OEM or OEM-style synchronized manual transmission with non-splined clusters allowed.
2. No gun-drilled main shafts.
3. No internal clutch-type transmissions allowed. Must have external clutch, pressure plate, and flywheel assembly.
4. Transmission must have at minimum two (2) forward and one (1) working reverse gear.
5. Two lever shifter or H-pattern shifter only.
6. No overdrive transmissions permitted.
7. No Rankin-type or cluster-disconnect transmissions allowed.
8. All manual transmissions must have helical gears only. No straight-cut gears allowed.

9. No quick change type transmissions allowed.

**Clutch & Flywheel**

1. Standard OEM or OEM-type clutch, pressure plate, steel flywheel, and throw-out bearing permitted.
2. Clutch discs and spacers must be steel. Multiple disc clutches with steel floaters and pressure plates permitted, minimum 7 ½" in diameter. Solid magnetic steel clutches and pressure plates only. Clutches must be positive engagement design. Slider or slipper clutch designs are not permitted. No carbon fiber clutches. Clutches found not to meet this definition will be deemed illegal.

**Bell housing**

1. OEM-type clutch assembly must use steel bell housing. No exceptions.
2. Quartermaster or Tilton-type bell housings permitted with aftermarket 7.25” clutch assembly.

**Drive Shaft:**

1. Drive shafts and universals must be of similar design standard production type and must be made of steel. Minimum 3” diameter. Minimum one 360° loop of 1 inch by 1/8 steel secured to cross member or chassis, must be present to prevent drive shaft from dislodging. Drive shaft must be painted white with truck number painted in red or black.

**Frame:**

1. GM metric frame only may be used. 1978-87 Chevrolet Malibu, Monte Carlo, Pontiac Grand Prix, Oldsmobile Cutlass, or Buick Regal. Frames must retain original 108-inch wheelbase. Maximum allowable difference from side to side is 1 inch. Frame may be fabricated from 6" off the centerline or rear axle to rear of truck and from front sway bar forward. Holes may not be cut to lighten frame. Frame may be X’d. Frames may not be narrowed. Front cross member must remain original and, may not be notched, narrowed, cut or otherwise altered. Minimum ground clearance, prior to race with fuel, oil and water, without driver, is 4".

**Roll Cage:**

1. Officials must approve roll cage designs. Round steel tubing 1.750" OD round tubing by .090" minimum wall thickness must be used to construct roll cage. Roll cage should be box type with a cross support in the back and a minimum 9" upright support at the left front support.
2. Left door must have a minimum of three bars in (four recommended) and must have 1/16" minimum steel plate from frame to top door bar.

**Engine Placement:**

1. Engine must be centered between frame rails. Engine must be installed in its original position. No setbacks permitted. Engine must bolt securely and positively to mounts. No torque plates permitted.
2. Steel motor mounts permitted.

**Wheels:**

1. 15" steel racing wheels only, maximum rim width 8", and maximum offset difference of 2". Air bleeders not permitted. Hubs must have 5/8" wheel studs. All wheels must have truck number on wheels.

**Tires:**

1. Hoosier F-53’s only. Drivers soaking or altering tires will forfeit all purse and points for the event and all track points for the year. Driver must also pay a $1,000 fine prior to being allowed to compete at Speedway. Any illegal tire, in the judgment of Officials, will be confiscated.
2. Front and rear tread width is 63" maximum. Spacers are permitted to maintain tread width. Tread width is measured with referee.

**Suspension:**

1. Front suspension components must remain stock for original frame used. Shock may be moved but, springs must mount in stock location.

2. Aftermarket tubular upper A-Arms with any ball joint, and bolting directly to OEM spindles may be used.
3. OEM heavy-duty spindles (i.e. Impala, Truck, etc.) allowed and must mount in stock locations.
4. No steel sleeves permitted over spindle. No offset or dropped spindles permitted.
5. Lower control arms cannot be shortened or otherwise altered.
6. Front sway bar may be either one-piece, or three-piece splined sway bar (Three-piece must maintain a maximum diameter of 1.250").
7. Coil springs may be replaced but must mount in OEM stock locations on lower A-Frame and rear axle.
8. Minimum front spring rate must be no less than 500 lbs at any time. Spring rate is subject to inspection after the event.
9. Absolutely no bump-stops, coil binding, or chassis stops of any type.
10. Only one shock permitted per wheel. All shocks must be steel, non-adjustable. **Claim rule will be $175.00 per shock.** (Shock must be claimed within ten (10) minutes of completion of Victory Lane ceremonies, in cash, presented to the Head Tech Official.)
11. No coil over shocks or coil over converted shocks permitted, no air, or remote reservoir shocks. No Schrader valves, no threaded body or cups (Subject to confiscation for dyno purposes).
12. Rear shocks must mount in stock location on rear axle. Coil spring rubber inserts permitted. No leaf springs or torsion bars permitted. All bushings must be of OEM or OEM-type dimensions. Rear sway bar permitted, but must be OEM stock bar. Must use stock type bushings.

**Steering:**

1. Steering box may not be removed from factory location. Up to three (3) universal joints or steel Heim joints may be used on steering shaft.
2. No rack and pinion steering allowed.
3. Original OEM steering must be used. Pitman arm and idler arm must be of original GM type used with this frame or stock aftermarket replacement.
4. Adjustable center link and steel Heim-type tie rod ends permitted.

**Rear End:**

*Option #1:*

1. Original 10 bolt GM rear end permitted. Any ring and pinion ratio permitted. Welded spider gears, full steel spools, steel mini spools, and steel Detroit locker rear ends permitted.
2. Rear trailing arms must mount in original brackets and in original holes in frame. Steel Heim joints permitted. Absolutely no aluminum trailing arms permitted.

*Option #2:*

1. Ford 9” rear end permitted. Must be all-steel housing, no aluminum center section permitted.
2. Absolutely no internal oil cooler pump permitted.
3. Any ring and pinion ratio permitted. Lightweight ring and pinion allowed.
4. No aluminum carriers or aluminum pinion bearing retainers allowed.
5. Only steel full spools, steel mini spools, and steel Detroit locker rear ends permitted.
6. Floater rear ends permitted. Bolt-on snouts and gun-drilled axles permitted.
7. Absolutely no aluminum, titanium or exotic metals permitted in any rear-end components.
8. Rear trailing arms must mount in original brackets and in original holes in frame. Steel Heim joints permitted. Absolutely no aluminum trailing arms permitted.
9. One (1) degree maximum camber.

**Brakes:**

1. Front brakes must use original OEM appearing calipers.
2. If heavy-duty hubs or rotors are used, they must bolt directly to OEM spindle and use OEM appearing caliper. No adapters are permitted.

3. Rear brakes must use OEM or OEM replacement components and any hubs or heavy-duty replacement hubs must attach to OEM axle and backing plate.
4. Rear disc brakes allowed.
5. Aftermarket brake pedal assembly allowed, with double reservoir master cylinder required to be mounted on engine side of firewall.
6. No aluminum brake rotors or drums allowed. Aluminum rotor hat permitted. Brakes must function on all four wheels.
7. No scalloped brake rotors permitted.

If you have any questions contact Edward Berry at (334) 379-4457.