

## SUPER STOCK RULES

\*\*\* Please refer to General Section for rules and regulations applicable to all divisions\*\*\*

**CAR ELIGIBILITY:** Any American Made 1955-1996 standard production automobile allowed –minimum wheel-base of 108 inches. No Pintos, T-Tops, Sunroofs, Convertibles, Jeeps, or Trucks. This is an event for the basic “stock car” only. Only minor modifications or alterations may be allowed per the rules for these divisions.

### **1. THE CAR, BODY, AND SPOILER:**

- 1.1 Complete bumper to bumper. OEM steel unibody or frame must be retained.
- 1.2 OEM stock steel un-altered floor pan, firewalls, trunk, and trunk floor.
- 1.3 Cars must be strictly stock. No holes in hood or roof. Hood must be kept in place at all times. Hood and trunk must be pinned closed. (No Bolting of Trunk or Hood) No aluminum pins. Hood hinges are optional.
- 1.4 Front firewalls must be sealed with no holes.
- 1.5 No lightening of the body components, hood, trunk, doors, inner panels, fenders, and roof, except clearance for roll bars on front doors. Aftermarket fiberglass or plastic nose & tail sections are optional. *Modifications to hood and trunk lid to fit aftermarket nose and tail pieces without removing any inner structure beyond area being modified.*
- 1.6 Front wheel wells may be removed.
- 1.7 All doors must be welded shut.
- 1.8 Door hinges must remain in place. Except for roll bar clearance drivers side only.
- 1.9 A complete fire wall must seal the trunk area from the driver’s compartment.
- 1.10 A strap of flat stock from the end of the bumper to the fender to keep from hooking other cars is permitted.
- 1.11 Only stock type rear view mirrors are allowed.
- 1.12 Doors, Fenders, Floor pans, and Quarter panels may be repaired with 22-gauge steel, body must maintain same shape. Rivets must be used for repairs and not sheet metal screws.
- 1.13 Must have at a minimum one (1) 2.5 lb. fire extinguisher fully charged with an indicator gauge within reach of driver securely mounted with a metal quick release bracket.
- 1.14 SPOILER: A rear spoiler, non-adjustable from the driver’s compartment, may be attached to the rear deck-lid, not to exceed 4 ½inches in height and 60 inches in length. Must be constructed of 1/8 inch metal or ¼inch Lexan and control the flow of air over one surface only, *or stock OEM spoilers that meet the CNS approval.* No rudders, side traps, or forward mounting brackets allowed. Minimum angle is 55 degrees. The spoiler must maintain the same contour as the rear deck lid.
- 1.15 Side skirts not to exceed 4” in height will be allowed. Skirt must not be lower than the factory floor pan.
- 1.16 Rear window and quarter windows allowed.

### **2. WINDSHIELD AND GLASS:**

- 2.1 All glass, head & tail-lights and exterior moldings must be removed.
- 2.2 A minimum of (3) 3/8 inch vertical braces, equally spaced, must be installed in front of the driver for protection. Full 1/8 inch Lexan windshield is mandatory.

### **3. ENGINE SPECIFICATIONS:**

- 3.1 Engine must be mounted in OEM rubber mounts, in stock location. *No additional mounts or bracing allowed.*
- 3.2 Deleted.
- 3.3 No after-market racing parts are allowed.
- 3.4 ARP type fasteners allowed.

- 3.5 The GM 602 crate engine p/n 19258602 is allowed. It may not run exhaust headers. Must run 500 CFM Holley 4412.
- 3.6 No external vacuum pumps or pan-vacuum systems allowed on either engine option.

#### **4. ENGINE DISPLACEMENT:**

- 4.1 Stock stroke for engine being used. Maximum compression 10 to 1.
- 4.2 Overbore of .0650 max. allowed on all engines. 360cid engine maximum on cars with less than a 113" wheel base. 400 will be allowed in cars with a wheel base of 114 or greater.
- 4.3 No modifications to engine block, block must remain exactly as produced by manufacturer.
- 4.4 No "made for racing" pistons. Pistons must be original or same as original. Flat top or dish only.
- 4.5 Must be 4 valve relief pistons. The only forged pistons allowed are LW2256F and L2256F 2 valve relief pistons are prohibited. *Floating wrist pins are allowed.*
- 4.6 Ford 351w & 351c - Any stock type piston may be used as long as the ring grooves and rings are 5/64 5/64 3/16 sizes.
- 4.7 Rods must be stock type and appearance, I beam type rods are allowed. Must be stock length only. No OEM exotic alloys are allowed.
- 4.8 Vortec type OEM rods will be allowed- No performance part numbers, OEM only.
- 4.9 GM 602 factory sealed motor permitted in all makes. Engine location to be approved by CNS Tech if not in a GM vehicle.

#### **5. OIL PAN:**

- 5.1 Stock appearing.
- 5.2 A 3/4inch plug must be installed in the oil pan for inspection, that access hole must be in line with a connecting rod journal. If hole does not exist, and inspection is required, oil pan must be removed or disqualification will result.
- 5.3 Ford 351w & 351c oil pan must have straight sides but is allowed an enlarged sump for more oil capacity.

#### **6. CRANKSHAFT AND BALANCER:**

- 6.1 Crankshaft must be stock O.E.M. or stock replacement only with stock stroke. No Stokers. OEM style balancer or stock replacement allowed.
- 6.2 Scat and Eagle cast or forged crankshafts are allowed. They must weigh a minimum of 51 lbs. and not be knife edged.
- 6.3 After market V-belt pulleys are allowed.

#### **7. CYLINDER HEADS:**

- 7.1 Stock heads only.
- 7.2 Pinning of stock type press-in rocker studs will be allowed. Stock type OEM replacement screw-in rocker studs will be allowed. (NO shoulder).
- 7.3 No after-market, 'bowtie', aluminum, high performance, VORTEC or altered performance heads allowed.
- 7.4 Only a 305 head on a 305 engine.
- 7.5 1.60 and 2.02 or larger valves are NOT allowed. Titanium, hollow or undercut stem valves are NOT allowed.
- 7.6 A maximum valve spring wire diameter of O.D.192, Spring O.D. 1.253 to 1.267.

7.7 The following aftermarket stock replacement unaltered cast iron cylinder heads will be approved for use in competition, shoulder type screw in stud and guide plates will be allowed with these heads:

- E-Force P/N 175679 Casting 3 10024561 and 10024361 (Part No. 175679 at EPW), head screw in stud with shoulder allowed
- World Parts P/N 43610
- Ford 351w – World Products cylinder head part #053030 allowed with 1.94 intake and 1.6 exhaust valves
- Ford 351c - 2bbl head with 2.041 intake and 1.655 exhaust valves
- Chrysler participants e-mail for more information. *However we will not allow any after-market heads*

## **8. INTAKE MANIFOLD:**

8.1 Mandatory intake manifolds will be as follows:

- Chevrolet - Edelbrock part # 2101
- Ford - Edelbrock part # 2181 - Windsor motors only.
- Ford - Edelbrock part #2750 - Cleveland motors only.
- Chrysler - Edelbrock part # 2176.
- Manifolds must remain unaltered, box stock only. No grinding, match porting or polishing allowed.

## **9. CAMSHAFT, VALVE LIFTERS, AND ROCKER ARMS:**

9.1 Hydraulic cams only.

9.2 Lift may not exceed .480 lift at valve.

9.3 No solid lifters or solid lifter cams allowed.

9.4 Only OEM type lifters, push rods, rocker arms, 1.5 maximum ratio allowed. Ford 351w 1.6 maximum ratio. 351c 1.73 maximum ratio.

9.5 After-market valve covers allowed.

9.6 No lifter bore truing allowed.

9.7 Any steel timing chain allowed.

9.8 *The 360 Mopar will be 1.880 intake valve and 1.6 exhaust valve with a max diameter valve spring of 1.500, single spring only with or without damper.*

9.9 *Ford valve and spring rules will be dealt with on a case by case basis.  
E-mail tech@coloradospeedway.com for clarification.*

## **10. COMPRESSION:**

10.1 10.0 to 1 maximum compression.

## **11. EXHAUST:**

11.1 Stock cast iron with no modifications, as provided on engine. No center dump styles allowed.

11.2 Ford 351w may port exhaust manifolds.

11.3 Exhaust must terminate behind driver. Two (2½ inch) pipes allowed. 2 into 1 pipes may be used provided the primary pipe does not exceed 2 ½” and the pipe after the merge does not exceed 2 ½”.

11.4 Mufflers are not required, but the 95 DBA rule will be strictly enforced. No points if too loud.

11.5 Exhaust must exit left side.

## **12. CARBURETOR:**

- 12.1 Stock Holley #R4412 2-bl 500 cfm or Quick Fuel 0-4412/Q500CT 2-BARREL CARB are the only legal Carburetors and must meet Holley specifications. No HP Carburetors.
- 12.2 Mandatory Adapter Kit –Unaltered Moroso part #64966. Only one spacer will be allowed between the intake and carburetor. Carburetor spacer must be used as manufactured with no alterations.
- 12.3 No polishing, grinding, or drilling (i.e. Metering block) of holes allowed.
- 12.4 Choke, blade, and rod may be removed.
- 12.5 Size and shape of boosters must not be altered.
- 12.6 Booster height must remain stock.
- 12.7 Jets of any size may be used.
- 12.8 Venturi area must not be altered in any way.
- 12.9 Casting ring must remain completely visible and may not be removed.
- 12.10 Base plate must not be altered in size or shape.
- 12.11 No holes may be drilled in the base plate.
- 12.12 Stock butterflies must not be thinned or tapered.
- 12.13 Screw ends may be cut even with the shaft, but screw heads must remain stock.
- 12.14 Throttle shaft must remain standard and must not be thinned, cut or nicked in any matter.
- 12.15 Maximum gasket thickness shall be .065.
- 12.16 No electric fuel pumps allowed except on V-6 fuel injected engines.
- 12.17 Only open type sandwich style paper type air cleaners are allowed with a maximum diameter of 14” by 3” tall. No treating or soaking. Offset air cleaners are approved for distributor clearance only. No cool air boxes allowed or forced air induction. No air deflecting or attachments of any kind are allowed to be attached to the air cleaner top, bottom or filter. Any modifications to the air cleaner assembly or filter must be approved prior to use in competition.
- 12.18 Stock OEM fuel injection is allowed on V-6 cars.

## **13. ELECTRICAL / BATTERY:**

- 13.1 Stock distributor and stock coil in stock locations.
- 13.2 Battery must be securely mounted, with hold-down strap over top. No plastic containers permitted. If mounted inside driver’s compartment, must be properly covered with rubber material.

## **14. COOLING SYSTEM:**

- 14.1 Stock radiator only in stock location. Aluminum radiators are allowed.
- 14.2 Deleted.
- 14.3 No engine coolers.
- 14.4 A minimum of one quart overflow catch-can must be installed inside engine compartment.

## **15. TRANSMISSION:**

- 15.1 Transmissions must have all working gears. Automatics must have original torque converter for transmission being used.
- 15.2 One Transmission Cooler Allowed for cars with automatic transmissions.
- 15.3 No inspection covers over flywheel.
- 15.4 Stall Converter not to exceed 1200 RPM.
- 15.5 Standard transmissions will be allowed in any car, explosion proof bellhousing or scatter shield required. Floor pan can be altered for this purpose only. If used it must have a stock unaltered production passenger car 3 or 4 speed transmission with all working gears. No racing transmissions allowed.

15.6 *Transmission must be mounted in the original stock rubber mounts to the original cross member.*

**16. CLUTCHES:**

- 16.1 No mini-clutches or ram clutches of any kind. Must have a stock diameter clutch assembly made of steel for make of car. The minimum weight of the clutch, flywheel, and bolts shall be 30 lbs.  
16.2 No aluminum flywheels.

**17. REAR END:**

- 17.1 Stock rear end only. The suspension parts used must be OEM or OEM replacement and not made for the sole purpose of High Performance or Racing applications. Those replacement parts must not increase or decrease tread width or be wider or narrower than the original. No modifications can be done to make those parts fit / no cutting off or moving trailing arm brackets or spring mounts to make the rear end fit. *The suspension parts and rear-end being used must be a direct replacement for the family of car (platform) being claimed.* This is for clarification of the existing rule only! OEM means Original Equipment Manufactured! OEM Replacement must pose the identical qualities to an OEM unit with no performance distinction or advantage. Please email if you have a question.

Be advised all rear differential components must be stock with the exception of a mini spool. Aftermarket ring and pinion is acceptable if it is an OEM replacement, appears visually to be the same as an OEM unit, weight is the same with size due to gear ratio taken into consideration and the unit has no performance advantage over a stock unit.

- 17.2 Locked, Posi-traction, or limited slips are o.k. –No racing components are allowed. Mini-spools will be allowed.  
17.3 Must be rear-wheel drive.  
17.4 No aluminum or carbon fiber drive shafts, yolks, or slip yolks allowed. Must have a minimum of two 2 inch wide X ¼inch thick 360 degree brackets placed around the drive shaft and fastened to floor or cross member preventing the shaft from being dislodged and dropping onto the racing surface.  
17.5 Final drive ratio no lower than 5.19.

**18. BRAKES:**

- 18.1 No deviation from stock allowed.  
18.2 Brake pedal must remain in stock location and mountings.  
18.3 Cars must have functional brakes on all 4 wheels.  
18.4 Drum brakes may be converted to disc brakes.

**19. FRAMES:**

- 19.1 Body and frame components must be the same. Manufacturer to manufacturer.  
19.2 Complete bumper to bumper stock frame and uni-body must be retained.  
19.3 Stub repair must maintain OEM measurements and components.  
19.4 Trunk floor must remain intact.

**20. ROLL BARS:**

- 20.1 Main cage roll bar and door bar material must be mild steel, 1 ¾inch O.D. x .090 wall or thicker. 1 ½ inch is acceptable for interior only. No pipe-fittings, No gas welding.

- 20.2 Roll bar must be a 4 post design and must be located directly behind the driver and forward to the 'A' pillar. The roll bar must be back-braced from the top of the bars to the rear of the frame (or floor plate) at appropriate 45 degree angle.
- 20.3 Roll bar members may attach to either the frame or the floor. Roll bars may not be installed so that they effectively connect the front and rear stubs. For floor installations, attach members to ¼inch x 8 inch x 8 inch or larger steel plates securely bolted or welded to the floor.
- 20.4 "Petty" bar may be installed and attached forward to the right 'A' post of the cage only.
- 20.5 Four horizontal door bars on each side must be used for driver protection, spaced equally apart.
- 20.6 Front and rear hoops are allowed but cannot be outside of car body. Hoops may not extend more than 2 inches in front of radiator. Super Stock factory radiator supports / bracing may only be removed to allow for front hoop installation. For those cars not running a front hoop, factory radiator supports / mounts must remain in place. *Front hoops must be installed with rear bracing at an angle down to the frame horns.*

## 21. **SUSPENSION:**

**GENERAL:** Colorado National Speedway has determined that the shock and spring rule will be as follows. Stock type shocks should have no more than ½ of the travel distance of the shock when mounted in the car. Travel distance will be determined by removing the rear shocks and raising the rear tires off the ground from the center of the rear axle, and measuring the distance between the shock mounting points on both sides. If a car is deemed to repeatedly contact the racing surface it will be immediately black flagged with the corresponding finish.

### **EXAMPLE:** How to measure total travel.

- **Measure total length of extended shock minus compressed length equals total travel.**
- **18" Total –Compressed Length of 12" (measured as described above) = Total travel of 6".**

- 21.1 All chassis components must be unmodified original OEM type or direct service replacements for the vehicle year, make, and model claimed. The suspension parts used must be OEM or OEM replacement and not made for the sole purpose of High Performance or Racing applications. Those replacement parts must not increase or decrease tread width or be wider or narrower than the original. The suspension parts being used must be a direct replacement listed in a parts interchange book such as the Hollander Interchange for the family of car being claimed. This applies to all front and rear suspension components.
- 21.2 Urethane or rubber bushings in suspension components must be utilized. No metal or mono ball bushings allowed.
- 21.3 Suspension must work and appear stock.
- 21.4 No modifying of the suspension allowed.
- 21.5 No cut springs allowed.
- 21.6 No spacers may be used to alter stock suspension except sway bar connections to the lower "A" frame. A one piece solid or hollow sway bar with a maximum diameter of 1 1/8<sup>th</sup> inch may be utilized. Front suspension/sway bar. OEM type sway bar end links only. Links/bolts may be unequal in length. No chains or slapper bars may be utilized. One sway bar adjustment bolt will be allowed on the left front end link. No lowering blocks.
- 21.7 No rear sway-bars allowed.
- 21.8 No spring jacks, no coil over, or overload springs allowed. No adjustable ball joints or adjustable suspensions.
- 21.9 Non-progressive coil spring 11-14" allowed. 11" or taller for metric cars; 12" or taller for all others. Must be correct diameter for make and model of car.
- 21.10 All shocks must be stock shocks in stock mounting location. Any shock with a 2020 standard catalog published cost of less than \$150 will be allowed. No adjustable, rebuildable or aluminum shocks.

- 21.11 **NO** spring rubbers or shackles will be permitted on the rear suspension. *The specified stock length for both the right and left shackles shall be 3 3/8" inches from center bolt hole to center bolt hole for Chevys. For other makes please e-mail for clarification.*
- 21.12 No Rack & Pinion steering allowed.
- 21.13 Car with a 109" and over wheelbase, and Camaro, will run a minimum 12" spring. Wheelbase 108" and less: minimum 11" spring.
- 21.14 Max camber of 3 degrees for left front wheel.

## **22. SPINDLES:**

- 22.1 Stock spindles only. The suspension parts used must be OEM or OEM replacement and not made for the sole purpose of High Performance or Racing applications. Those replacement parts must not increase or decrease tread width or be wider or narrower than the original. Spindle height and pin height must remain as the intended application. The suspension parts being used must be a direct replacement listed in a parts interchange book such as the Hollander Interchange for the family of car (platform) being claimed.

## **23. STEERING:**

- 23.1 Stock steering system only. Factory steering column may be removed and 3/4" steel shaft installed.
- 23.2 Quick release steel 'dish' type wheel allowed.
- 23.3 Aftermarket pulley and aftermarket power steering pump allowed.

## **24. WHEELS AND TIRES**

- 24.1 Mandatory right side reinforced racing type wheels and studs.
- 24.2 Deleted.
- 24.3 No mags or aluminum wheels allowed.
- 24.4 Oversize lug-nuts required on all wheels.
- 24.5 Maximum wheel width of 8 inches.
- 24.6 Deleted.
- 24.7 CNS mandatory tire is the Hoosier 8" Comanche.
- 24.8 All competitors are allowed to purchase up to 4 new tires (2 right side and 2 left side) and must run those four tires for BOTH qualifying and competition (Dash & Feature Races) for five consecutive nights of racing.
- 24.9 No tire bleeders allowed.
- 24.10 Maximum treadwidth is 77" from outside of tire to outside of tire.

## **25. WEIGHT: (Note: Weight MUST be posted on Passenger A-Pillar!)**

- 25.1
  1. Cars with a wheelbase over 110" minimum weight with driver before the race must be 3500 lbs. 53% left side max.
  2. Cars with a wheelbase 110" or less minimum weight with driver before the race must be 3450 lbs. Maximum left side weight is 54%. ~~602 crate motor weight 3450 lbs. with driver before race.~~
  3. ~~Leaf Spring Cars minimum weight with driver before the race must be 3550 lbs. Maximum left side weight is 52%. 602 Crate Motor weight 3550 lbs. with driver before race. Camaros Maximum 52-53% left side weight. Camaro & Nova: 3,300lbs. All Fords: 3,400lbs.~~ All Leaf Spring cars and all Fords: minimum weight with driver before the race must be 3500 lbs. 52% left side max.
  4. Deleted
  5. Left side % weight can be checked before or after the race. Vehicles must meet left side weight percentage before and after race.

25.2 Any added weight must be bolted or encased in steel and welded to frame rails. Any added weight in the driver's compartment must be approved by CNS Officials.

25.3 All Ballast must be painted white with car number clearly painted or stamped on it.

**26. FUEL:**

26.1 No fuel additives. No nitrous oxide, oxygen containing compounds, or any other additives will be allowed.

26.2 Pump gas or CNS race fuel only.

**27. FUEL TANK:**

27.1 Fuel cells are required, and must be securely mounted in the trunk.

27.2 Fuel cell must fill from inside the trunk –No holes in trunk.

27.3 Vent tubes must exit outside of car.

27.4 No fuel lines in the drivers compartment.

27.5 Oberg or SRI antisiphon valve is mandatory; mounted near fuel cell after fuel filter.

**28. CLAIM RULE:**

28.1 CNS reserves the right to completely tear down and inspect any engine at any time. If engine is found to be legal, CNS will provide a basic gasket kit for reassembly. CNS has the right to impound a car at any time and require the team to transport car or engine to an engine or chassis dyno to determine HP and torque ratings.