

VIRGINIA *Motor Speedway*

2021



COLLISION-ONE.COM
LIMITED STOCK CAR
DIVISION

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LIMITED STOCK DIVISION SUPPLEMENT TO THE “2021 GENERAL RULEBOOK”

“The rules and/or regulations set forth herein are designed to provide for the orderly conduct of racing events and to establish minimum acceptable requirements for such events. These rules shall govern the condition of all events, and by participating in these events, all participants are deemed to have complied with these rules. NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATIONS OF OR COMPLIANCE WITH THESE RULES AND REGULATIONS. They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to a participant, spectator or official.

The race director shall be empowered to permit reasonable and appropriate deviation from any of the specifications herein or impose and further restrictions that in his/her opinion do not alter the minimum acceptable requirements. NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM SUCH ALTERATION OF SPECIFICATIONS. Any interpretation or deviation of these rules is left to the discretion of the officials. Their decision is final.”

Section 1. General

- 1.1.1 Any American made sedan is eligible. No station wagons, 4 wheel drives, or Jeep type vehicles. No front wheel drive chassis.
- 1.2 Minimum stock wheel base allowed 104”.
- 1.3 **Car must have a towing hook in the front and rear of car or chains bolted to frame. Must be easily accessible to the tow truck operator.**
- 1.4 Body & engine must be same manufacturer. GM to GM, Ford to Ford, Chrysler to Chrysler.
- 1.5 No Radios allowed.

Section 2. Safety

- 2.1 All safety items are subject to Technical Inspectors approval.

Section 3. Body

- 3.1 All doors must be welded or bolted shut.
- 3.2 All glass must be removed. Lexan Windscreen or three (3) ¼” bars covered in wire or lexan.
- 3.3 All molding, lights and light lenses must be removed.
- 3.4 Rear seat cushions must be removed and any resulting holes must be covered with sheet metal. .22 gauge sheet metal recommended.
- 3.5 Complete bumper to bumper steel unibody must be retained.
- 3.6 May tie front and rear unibody rails together.
- 3.7 Aftermarket bodies permitted. (i.e. AR Bodies – Street Stock Sportsman or Fivestar – Street Stock) Please call when making a full body change.
- 3.8 Wheel openings may be cut and rolled-in for tire clearance.
- 3.9 Front wheel wells may be removed.
- 3.10 Hood and deck lid bracing may be removed.
- 3.11 Hood and trunk must be secured with positive type fasteners.
- 3.12 One (1) 2” Spot ONLY. With use of head and neck restraint.

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- 3.13 Rub rails are permitted between front and rear fender wells and must not protrude from body more than 1 inch and not wider than 2 inches. Must be securely fastened, minimum of 3/8” bolts.
- 3.14 After Market bumper covers and hoods permitted.
- 3.15 Body subject to Tech Inspector’s approval.
- 3.16 New Bodies may be used on old chassis as long as long as GM to GM, FORD to FORD and length and width are accommodating. Wheel wells must match up and look stock without a lot of modification. Must be tech approved.
- 3.17 Spoiler permitted, 6” maximum.
- 3.18 Weight penalty may be enforced if body is altered not according to these rules.
- 3.19 Interior decking is permitted, you can enclose the passenger side and rear up to bottom of door windows. Check with Tech staff if you have a question.
- 3.20 Trunk area must be enclosed. Must not be able to see ground or rear tires.

Section 4. Frame

- 4.1 Completely stock. No Cut, chop or drop!!!

Section 5. Roll Cage

- 5.1 Full 8-point roll cage required.
- 5.2 Must have at least 2 bars from top of cage to rear frame rails, also need two (2) front rails up to the radiator and bowing down to frame.
- 5.3 A roll cage with a minimum of four door bars on driver’s side and two door bars on passenger side is mandatory.
- 5.4 Side bars on driver’s side can extend into the door opening, up to four bars are recommended.
- 5.5 All Bars must COMPLETELY be welded.
- 5.6 Minimum of two bars must extend back through rear firewall.

Section 6. Firewalls

- 6.1 Full firewall is mandatory, firewall may be made out of .22 gauge sheet metal.

Section 7. Tires / Wheels

- 7.1 Hoosier 500 only.
- 7.2 Maximum 8” wheel. Offset 2” minimum and 4” maximum.
- 7.3 Mag wheels are not allowed. **NO METAL WHEEL COVERS ALLOWED.**
- 7.4 Must use 5 oversized lug nuts and studs per wheel.
- 7.5 Wheels may be reinforced to prevent loss during racing.
- 7.6 Plating a stock wheel is legal, steel wagon wheel or steel slot wheel is considered a reinforced wheel without any modifications and is legal.
- 7.7 Spacer used in rear for frame to tire clearance only. Subject to tech approval, Must be approved.

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Section 8. Brakes

- 8.1 Four-wheel hydraulic brakes.
- 8.2 Must be in good working order at all times.
- 8.3 No cut-off valves.
- 8.4 Adjustable proportioning valves allowed.
- 8.5 All brake lines must be properly mounted.

Section 9. Suspension

- 9.1 Front and rear springs may be aftermarket parts.
- 9.2 Minimal modifications allowed to install springs: such as cutting of spring bucket area.
- 9.3 Spacers maybe used.
- 9.4 Shocks mounted in stock location.
- 9.5 No coil overs, HEIM end shocks, or air shocks. \$75.00 per shock claim on shocks. Can run adjustable leaf spring shackles. May run adjustable spring bucket on all four corners.
- 9.6 Modifications are not allowed to stock upper or lower control arms. Do not change factory location of mounts.
- 9.7 No steel control arm bushing allowed. May use urethane replacement bushings.
- 9.8 All steering arms and parts must be factory or suitable replacement. (TRW, Moog, Dana, McQuay Norris.) No racing adjustable parts allowed.
- 9.9 No modifications to lower rear factory, trailing arms. Must be stock, equal length bars. Top link can be cut to correct the pinion angle.
- 9.10 Factory 4 link must use all trailing arms and bushings must be in good repair.
- 9.11 No aftermarket panhard bar.
- 9.12 Steering quickner allowed.

Section 10. Clutch / Transmission

- 10.1 Stock transmission and clutch only.
- 10.2 Automatic transmission must have stock torque converter (no lock up converter). 10” converter permitted.
- 10.3 Safety strap one (1) under front half of drive shaft and one (1) under the rear half is required.
- 10.4 Stock flywheel permitted. Corvette and SVO flywheels permitted.
- 10.5 Any stock 3 or 4 speed transmission with reverse and all working gears.
- 10.6 Automatic transmission cooler is permitted. Must NOT be in drivers compartment.
- 10.7 Stock steel drive shafts only.
- 10.8 Driveshaft must be painted white.
- 10.9 May use hydraulic throw-out-bearing and master cylinder.
- 10.10 A 360 degree blow proof bell housing is mandatory. Must have 3” inspection hole in bottom to inspect clutch. Auto transmission must have SFI approved shield or blanket.

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Section 11. Rearend

- 11.1 Stock rearend permitted. Ford 9” rear permitted, bracket **MUST** be installed as if this rear is to replace stock unit. No aftermarket locker. Factory replacement locker permitted, spool allowed.

Section 12. Battery

- 12.1 Batteries may be moved to the inside of the car but must be in a covered box.
- 12.2 Batteries not permitted in the trunk.
- 12.3 All batteries must be enclosed in safety box. Subject to tech approval.
- 12.4 Master kill switch must be in reach of driver. All positive terminals must be shielded.

Section 13. Cooling Systems

- 13.1 One radiator, stock type only under hood in stock location.
- 13.2 Stock type Aluminum or racing radiator allowed.
- 13.3 No antifreeze allowed.

Section 14. Fuel System

- 14.1 Gasoline only.
- 14.2 Fuel cells must be used and will be checked for condition and date of manufacture.
- 14.3 Fuel cells must be vented to the outside of the car.
- 14.4 Fuel cells may be mounted 3 inches lower than frame rails.
- 14.5 Fuel caps must be secured to fuel cell.
- 14.6 Fuel line may not exit bottom of fuel cell.

Section 15. Engine:

- 15.1 All casting numbers must be unaltered.
- 15.2 Must be in stock location.

15.3 Blocks:

- 15.3.1 Cast iron only. NO ALUMINUM.
- 15.3.2 Production only. (No bowtie, SVO, etc.).
- 15.3.3 A maximum overbore allowed .060
- 15.3.4 Maximum Cubic Inch Displacement: GM – 358 cu. in. & Ford – 360 cu. in., Chrysler – 370 cu. in.
- 15.3.5 Must pass pump check.

15.4 Cylinder heads: No aftermarket heads allowed. (No Vortex Bowtie). If you have a question about cylinder head call before you purchase.

- 15.4.1 Cast iron only.
- 15.4.2 No GM small block angle plug heads. VORTEC heads permitted. If you are not sure on what heads are accepted please call for info.
- 15.4.3 No porting or polishing.
- 15.4.4 GM - 62 cc min., Ford – 62 cc min.

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- 15.4.5 Three angle valve job maximum.
- 15.4.6 No titanium valves or exotic metals. Steel or stainless valves only.
- 15.4.7 Stock valve stem diameter 11/32.
- 15.4.8 Valve taper 320. Max.
- 15.4.9 Roller Rocker permitted max lift: GM – 1.5:2, Ford – 1.6:1
- 15.4.10 Polylocks are permitted.
- 15.4.11 Stock diameter push rods.
- 15.4.12 No bowl work allowed under valve seat.
- 15.4.13 No porting or machining for gasket matching allowed.
- 15.4.14 One primary spring per valve allowed. May also have dampener spring. Max diameter 1.255
- 15.4.15 Screw-in-studs & guide plates allowed. NO stud girdles.

15.5 Pistons:

- 15.5.1 Flat top only. 2 or 4 valve relief. Must weigh no less than 400 grams.
- 15.5.2 Any means of lightening other than balancing is illegal.

15.6 Crankshaft:

- 15.6.1 Stock production or approved aftermarket.
- 15.6.2 Stock stroke only.
- 15.6.3 Any means of lightening other than balancing is illegal. No knige edges. 48 pound minimum after balancing.

15.7 Connecting rods:

- 15.7.1 Must be “I” beam rod. Standard diameter thru bolt rod or cap screw rods. Must weigh no less than 530 grams.
- 15.7.2 Stock length only. 5.7
- 15.7.3 No polishing.
- 15.7.4 Any means of lightening other than balancing is illegal.
- 15.7.5 After market rod bolts permitted.

15.8 Camshaft / Lifters:

- 15.8.1 Hydraulic only. Max lift .480 (lobe lift x rocker ratio.) (.320 at cam shaft)
- 15.8.2 No hydraulic rollers.
- 15.8.3 No gear drives.
- 15.8.4 Stock lifter diameter only.
- 15.8.5 No variable duration / bleed-down type lifters.
- 15.8.6 Fire order on engine must remain traditional.

15.9 Intake Manifold / Carburetor:

- 15.9.1 Cast iron 2-barrel or approved aftermarket 2101 Performer. No alteration to the intake permitted.

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- 15.9.2 Carburetor spacer 1” max. No slider or adjustable base. No taper and must not be offset.
- 15.9.3 One 2 bbl carburetor of OEM. Maximum venturi diameter is 1-3/8”. Maximum throttle plate diameter is 1-11/16”. Rochester Carburetor. Booster in Rochester carburetor must measure a maximum of .250 in center hole of booster. (If gauge slides through booster it will be declared illegal). Height of booster must be a minimum of .740 (If gauge slides over booster it will be declared illegal).
- 15.9.4 No modifications, polishing, grinding, porting or cutting allowed with the exception of choke plate removal.
- 15.9.5 May use two gaskets, maximum thickness .080” each.
- 15.9.6 No electric fuel pumps.
- 15.9.7 Stock mechanical fuel pumps only.

15.10 Ignition:

- 15.10.1 Any stock OEM distributor allowed.
- 15.10.2 Single points.
- 15.10.3 Any stock OEM coil allowed. Must fit in stock cap.
- 15.10.4 Stock HEI systems permitted. No MSD modules.

15.11 Exhaust:

- 15.11.1 Stock cast iron manifolds or aftermarket headers permitted. NO 180 degree, crossover or zoomie’s allowed.
- 15.11.2 Must exit behind driver.
- 15.11.3 Exhaust pipe diameter 6” maximum I.D., must be parallel to track.
- 15.11.4 Exhaust must be securely bolted. No band clamps permitted.
- 15.11.5 Loss of exhaust is grounds for disqualification.

15.12 Engine Location / Oil Pans:

- 15.12.1 Stock location only.
- 15.12.2 After-market oil pans allowed. Must have 1” inspection plug to inspect cranks and rods. Call for location.
- 15.12.3 Chains over engine mounts are permitted.

Section 16. Weight

- 16.1 Car must weigh 3300 lbs with driver and no added fuel.
- 16.2 Car will be weighed in post-race condition.
- 16.3 The track scales are official.
- 16.4 Failure to meet weight will result in disqualification.
- 16.5 All lead must be properly secured and painted white. (Subject to tech inspection.)
- 16.6 All lead must have car number painted on it. (Subject to tech inspection.)

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Section 17. Protest/Post-Race Inspection

- 17.1 \$300 for the top half of engine.
- 17.2 \$500 for complete engine.
- 17.3 \$250 for removal of fly wheel/torque converter.
- 17.4 Track does NOT pay for labor or materials associated with teardown for inspections.
- 17.5 Protest must be submitted in writing within 10 minutes of feature completion. Car protested has right to counter protest.
- 17.6 Only top 5 can protest.
- 17.7 All parts found illegal become the property of VMS until the end of the season.
- 17.8 Can OR Can't rule: DO NOT try to read between the lines in the rule book. Just because the book doesn't say you can't, don't assume you can. Any modifications not specifically outlined here are at the Tech Departments discretion. All final decisions will be made by the tech officials. Ask first before you assume something is legal.