

Section 13

NASCAR Whelen All American Series

Late Model Stock Car

This Music City Motorplex Division will compete under the sanctions of NASCAR. The specifications listed will become part of the official NASCAR rulebook, except in cases of obvious conflict. All technical rules will generally fall within NASCAR and Music City Motorplex specifications. NASCAR officials will resolve any disputes. All drivers in this division must be members of NASCAR and Music City Motorplex to compete.

NOTICE: All equipment is subject to the approval of NASCAR officials. No equipment will be considered as having been approved by reason of having passed through inspection unobserved. Any equipment which does not conform to specifications or tolerances contained in this NASCAR rulebook, will not be eligible for approval.

NOTE: All cars must comply with the rules set forth by the Music City Motorplex rule book to be eligible for competition. Any and all cars and car parts are subject to MCM technical inspection processes. MCM is not required to follow any other sanctioning bodies or manufactures guidelines in its inspection processes.

NOTE: Music City Motorplex Track Officials reserve the right, as a tool for rule enforcement, to claim any and all parts that have a cost allowance at the price stated in these rule specifications.

NOTE: Consult Section 7 for minimum specifications that apply to all racing divisions. Any changes made to either ASA or NASCAR Late Model Rule Book after January 1, 2008, will not affect the Music City Motorplex rules unless amended.

1. WHEELBASE / TRACK WIDTH

- 1.1 Late Model Stock Car: All cars must compete with a wheelbase of min. 101".
- 1.2 Track width is a maximum of sixty-six (66") inches, measured across front wheels, spindle high.
- 1.3 Wheel spacers will be permitted to utilize the maximum allowable tread width.

2. DETAILED BODY SPECIFICATIONS AND APPEARANCE

- 2.1 Roof height minimum of 47 inches. Quarter panel height min 34 ¼ inches. Nose height min of 15 ¼.
- 2.2 Centerline of rear deck height must not be within of 12 inches of roof height.
- 2.3 Maximum spoiler allowed is 6.5 inches height by 60 inches in length. May run spoiler braces. Spoiler must be centered on rear deck lid within ½ inch.
- 2.4 The approved front air dam must maintain a minimum ground clearance of four (4) inches for all models, all around.
- 2.5 One (1) rear view mirror will be permitted and must be mounted at the top of the windshield.
- 2.6 A wink type three (3) dimensional mirror will be permitted with a maximum width of 26 inches.
- 2.7 A rear view "spot" mirror may be fitted; however, it must not extend outside of the car at any time.
- 2.8 No down force bodies allowed. All bodies must comply with ARP/Five Star dimensions.
- 2.9 Bodies may be Steel, Aluminum, or Fiberglass.
- 2.10 50 lb. PER VIOLATION, PENALTY.
- 2.11 No skirts, fins, under panning of flares permitted.
- 2.12 Sheet metal around fuel cell not required, however rear firewall must be completely enclosed.

3. WINDSHIELDS / WINDOW NETS

- 3.1 Left side window net required.
- 3.2 No tinting of any windows.
- 3.3 Windshields and back windows min. of .125 thick, and must be supported with min. of 2 straps.
- 3.4 Right side window must remain open at all times.

4. ENGINE LOCATION

- 4.1 All cars: Engines shall be mounted so that the #1 spark plug is 3.5 inches (3 ½") behind the left front upper ball joint... Plus (+) or Minus (-) half (.5") inch tolerance.

5. ENGINE GROUND CLEARANCE

- 5.1 Minimum of eleven (11") inches from the centerline of crankshaft at the harmonic balancer to the ground.

6. ENGINE DISPLACEMENT

- 6.1 Consult 2008 NASCAR Whelen All American Series Late Model Stock Car rule book for detailed specifications on machined engines.
- 6.2 All Chevrolet crate engines consult GM book #88958668
- 6.3 Mcgunegill engines consult Mcgunegill spec. sheet

7. ENGINE BLOCK

- 7.1 Consult 2008 NASCAR Whelen All American Series Late Model Stock Car rule book for detailed specifications on machined engines.
- 7.2 All Chevrolet crate engines consult GM book ##88958668
- 7.3 Mcgunegill engines consult Mcgunegill spec. sheet

8. ENGINE PISTONS & RODS

- 8.1 Consult 2008 NASCAR Whelen All American Series Late Model Stock Car rule book for detailed specifications on machined engines.
- 8.2 All Chevrolet crate engines consult GM book ##88958668
- 8.3 Mcgunegill engines consult Mcgunegill spec. sheet

9. OIL PANS & OIL SYSTEMS

- 9.1 Consult 2008 NASCAR Whelen All American Series Late Model Stock Car rule book for detailed specifications on machined engines.
- 9.2 All Chevrolet crate engines consult GM book ##88958668
- 9.3 Mcgunegill engines consult Mcgunegill spec. sheet
- 9.4 Oil pan must be of magnetic steel construction.

10. CRANKSHAFT AND BALANCER

- 10.1 Consult 2008 NASCAR Whelen All American Series Late Model Stock Car rule book for detailed specifications on machined engines.
- 10.2 All Chevrolet crate engines consult GM book ##88958668
- 10.3 Mcgunegill engines consult Mcgunegill spec. sheet
- 10.4 When weighing crankshafts, the minimum weights listed below shall include the timing chain sprocket.
- 10.5 All Chevrolet crate engines used for Late Model competition may run harmonic balancer #917320 OR #917410.

11. CYLINDER HEADS

- 11.1 Consult 2008 NASCAR Whelen All American Series Late Model Stock Car rule book for detailed specifications on machined engines.
- 11.2 All Chevrolet crate engines consult GM book ##88958668
- 11.3 Mcgunegill engines consult Mcgunegill spec. sheet

12. INTAKE MANIFOLD

- 12.1 The intake manifold must be MCM approved with the manufacturers' identification in the form of cast-in part numbers unaltered on the intake manifold.
- 12.2 Track Officials may use an intake manifold provided by the respective manufacturer as a guide in determining whether a Competitor's intake manifold conforms to the specifications of the rule book.
- 12.3 Intake manifolds must remain as manufactured.
- 12.4 Port matching or flow work will not be permitted.
- 12.5 Intake manifolds may not be painted or coated. Any suspicious residue in intake will result in disqualification (colored residue etc.)
- 12.6 Only one (1) standard flat gasket, a maximum compressed thickness of 0.075 inches, may be used between the cylinder head and the intake manifold.
- 12.7 All Edelbrock part numbers are current design Edelbrock Performer Series Intake Manifolds. Older design intake manifolds with the same part numbers will not be permitted.
- 12.8 "Machine" engine eligible intake manifolds:
 - Chevrolet: Edelbrock--Part Number 2101
 - Ford: Performer Intake Manifold--Part Number M-9424-C358
- 12.9 The intake manifold material must be aluminum.
- 12.10 Magnesium or other exotic materials will not be permitted.

13. CAMSHAFT, VALVE LIFTERS AND ROCKER ARMS

- 13.1 Consult 2008 NASCAR Whelen All American Series Late Model Stock Car rule book for detailed specifications.
- 13.2 GM 603 and 604 crate engines will not be allowed 1.6 rocker arms either on intake or exhaust.
- 13.3 All Ford crate and Mcgunegill engines will only run 1.5 rocker arms.

14. EXHAUST

- 14.1 All competing cars must have a working exhaust system that meets a maximum of 100 dba at one hundred (100') feet under racing conditions. NO Exceptions.
- 14.2 Mufflers are required.
- 14.3 Recommended mufflers are Schoenfeld #112530 or #113035. However muffler price must not exceed \$175. Muffler may not be altered internally.
- 14.4 Any other type muffler must be approved by officials – may be subject to weight penalty.
- 14.5 Exhaust pipes will be allowed to exit through the door, or under car.
- 14.6 1" max exhaust overhang past vehicle
- 14.7 All Late Model Stock Cars will be allowed 1 ¼ O.D. max (may step to 1 ¾") headers with a (4 into 1) 3" or 3 ½" collector. No "tri-y" or "iron lung" or "180 crossover" headers will be allowed. Straight rail cars will be allowed crossover headers with the same specifications. Exhaust pipe must remain the same diameter as collector until the end of the exhaust pipe. No crossover pipes allowed.
- 14.8 Exhaust gasket may not exceed .090 compressed.
- 14.9 All cars will be permitted a 5/16 header flange max. with no spacers of any kind between the head or flange.

15. CARBURETOR

- 15.1 **ALL MCM Approved "Crate" Engines:** Carburetor allowed is the approved Holley 650 cfm four barrel, model 4150 HP, sales number 0-80541-1, must remain box stock except modifications to jets, squirters, power valves and air bleeds using only Holley replacement parts. No machining, altering or cutting will be allowed on any part of carb. Carburetor body must remain unaltered as from Holley. Boosters, throttle shafts, butterflies and base plate must remain unaltered for model 80541-1 as from Holley.
- 15.2 **Late Model "Machine" Engines:** Music City Motorplex has approved the "500" CFM maintaining a throttle bore maximum size of 1-1/2 inches with the metering block and main body of the 500 CFM Holley 0-4412C or 0-80583-1HP, with a venturi size of 1-3/8 inches. The Holley 0-4412S is not allowed. Carburetor body must remain unaltered as from Holley. Boosters, throttle shafts, butterflies, and base plate must remain unaltered for model 4412 as from Holley.
- 15.3 **Late Models:** Only Holley metering blocks can be used. Surfacing of the metering blocks for improved gaskets seal will be permitted. The only metering block permitted for the Holley 0-4412C will be the Holley, machined number 5925-sames number 134-137 or the Holley 0-80583-1HP will be the Holley machined number 12201-N-sales number 34R12203A-N. For the approved metering blocks, the amount of holes and passages and the location must remain as manufactured with screw in emulsion bleed jet passage, however, hole sizes may be altered in the jets. Additional holes or passages will not be permitted. Carburetor body must remain unaltered as from Holley. Boosters, throttle shafts, butterflies and base plate must remain unaltered for model 4412 as from Holley.

16. CARBURETOR SPACERS, GASKETS AND MOUNTING

- 16.1 Any carburetor spacer may be used on Chevrolet crate motors as long as it doesn't exceed 1" in thickness and it has 4 holes, non tapered, chamfered, or radiused, with a Max. dia of 1 ½ inches in dia. and is Aluminum only.
- 16.2 Ford Crate engine and Mcgunegill engines will not be allowed any spacer.
- 16.3 Machined Engines only a 1 piece, solid, aluminum carburetor spacer, a minimum 0.700 inch, maximum 0.750 inch in thickness, must be installed between intake manifold and carburetor. The spacer must be centered on the intake manifold and have two (2) round holes with one and one-half (1 ½") inch openings located in the center that match the base of the carburetor. Holes must be cut perpendicular with the base of the carburetor. Taper, bevels, or any modifications will not be permitted.

17. AIR INTAKE

- 17.1 Only a round dry type paper air filter, a minimum of 12" and a maximum of 14" diameter and with a minimum of 1 ½" and maximum of 4" in height.
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17.2 The top and bottom of the air filter housing must be solid and must be the same diameter. Lips or expanded edges will not be permitted. Tubes, tunnels or any devices that may control the flow of air will not be permitted inside of the air filter or between the air housing and the carburetor.

17.3 No vacuum in crankcase allowed.

17.4 No air boxes allowed.

18. FUEL SYSTEMS

18.1 Must conform to guidelines and tolerances as specified by the NASCAR Weekly Series Late Model or ASA Late Model Rulebooks.

18.2 All fuel used for competition must be purchased through Music City Motorplex.

18.3 No oxygen bearing or performance enhancing additives may be introduced into the inductions or fuel supply, either at the fuel cell or upstream in the system.

18.4 No icing of fuel, intakes, carburetors, fuel cells, fuel lines or any other part of fuel delivery system. This applies to before qualifying, and before race event. Fans blowing on engines or fuel system must not change ambient air temperature in anyway either mechanically or chemically.

19. ELECTRICAL SYSTEMS

19.1 All cars may run MSD ignition, Crane HI-6N, HEI distributor or Mels. All systems must be analog.

19.2 No crank triggers or magnetos allowed.

19.3 May run alternator Max. output 16 volts.

20. COOLING SYSTEM

20.1 1 aluminum radiator only. No chemical colling allowed. Must have overflow catch can or hose run to windshield.

20.2 Antifreeze is not allowed. \$250 fine.

21. CLUTCH

21.1 Clutch assembly must be bolted to flywheel located inside bell housing.

21.2 Discs and pressure plates must be steel, friction material optional, and Minimum diameter of 5 1/2"

21.3 Bell housing may be aluminum or steel (recommended)

21.4 Only a magnetic steel flywheel, bolted to the crankshaft will be permitted.

22. TRANSMISSION

22.1 Standard stock production model OEM manual transmission allowed.

22.2 Minimum of 3, max of 4 operable forward gears and reverse.

22.3 All gears must be in working order (except first gear in four speeds).

22.4 No straight cut gears. No lighting of gears on main shaft.

22.5 Dual lever shifter. Okay. No "Quick Change" units allowed.

23. DIFFERENTIAL

23.1 May be quick change unit, 9 inch.

23.2 No independent rear suspension, coolers permitted. Max. camber allowance 1 1/2 degrees.

23.3 Tubes may be aluminum.

24. DRIVELINE

24.1 Driveshaft's maybe Aluminum or Steel only.

24.2 All drive shafts must be painted white. Min of 2 3/4 inches in dia.

25. BRAKES

25.1 All cars: Limit of \$300 per caliper is permitted.

25.2 Brakes must be installed and operational on all 4 wheels.

25.3 Liquid or gas cooling of the brakes will not be permitted.

25.4 Recirculators not permitted.

25.5 Blowers permitted in line only, for sole purpose of cooling rotors only, no chemical cooling.

26. FRAMES

26.1 Perimeter, Straight rail, or front clip OEM chassis permitted.

26.2 Must be welded construction.

27. ROLL BARS

27.1 Must be 1 3/4 dia. X .095 tubing

27.2 4 door bars on driver's side.

27.3 **Fiberglass body cars:** The driver's side section of the roll cage must have installed either solid steel one- eighth (.090 - .125) inch plate bolted to the cage or solid steel plates one-eighth (.090 - .125) inch welded to the space between each left-side door bar.

28. SUSPENSION

28.1 Nothing may inhibit the movement of suspension travel (i.e. bump stops, chains, etc.).

28.2 1 spring per wheel.

28.3 1 spring rubber allowed per spring, must not exceed 1 revolution of spring.

28.4 Sway bars will be conventional link setup, no rear sway bars.

28.5 Only right rear lower trailing arm may alter wheelbase, no more than 1 inch.

29. SPINDLES / HUBS

29.1 Must be metal construction.

30. STEERING

30.1 Collapsible steering column recommended. Steering wheel must be padded.

30.2 Cars maybe rack and pinion or steering box. All tie rods and steering arms must be steel.

31. GROUND CLEARANCE

31.1 Ride height or frame to ground clearance is a minimum of four (4") inches, both sides of car.

31.2 Ride height is measured with all four (4) tires inflated to the tire manufacturers recommended minimum "cold" or "starting" pressures. If a car has a flat coming off track he will be allowed to change, the tire with another one. Tire will be considered flat below 20 psi. and may be changed.

32. WHEELS

32.1 10" Steel wheels only, may be offset.

33. TIRES

33.1 See Section 11 for detailed tire rules governing purchases and tire usage.

33.2 No heating, sipping, grinding, buffing, soaking, or changing composition and/or character of tire.

34. WEIGHT

34.1 Minimum Base Car Weights

- **All Perimeter cars will weight 2850 pds. With a Max. of 56% left side after a 50 lap event and qualifying.**
- **All Straight rail cars will weight 2950 pds. With a Max. of 55% left side after a 50 lap event and qualifying.**
- Perimeter cars must meet NASCAR guidelines on frames and roll cages to qualify for 2850 pds. Perimeter cars may "X" out the passenger side roll bars with 1 ¼ .090 wall tubing but must have gussets on all corners. Any other altering will be 2950 pds.
- On events over 50 laps cars will be allowed to refuel after event. Fuel will only be allowed in fuel cell.
- On 50 lap events, all cars must be prepared to run 50 green flag laps and 10 caution laps, 60 total laps. If more laps are completed, cars will be allowed a one (1) pound per lap variance for fuel burn-off.
- There will be a 5 pound grace given at the scales, with a (.2) % two tenths grace on left side. No more don't ask.

34.2 Shocks

Four (4) completely steel or aluminum body shocks may be revalvable. All shocks can be claimed after race for \$250.00 per shock by any competitor finishing behind claimed. All shock claims are first come first serve. No external reservoir. Track reserves the right to claim any shock after feature event. 1st Refusal to sell will warrant disqualification, and 2 week suspension for first offense. 2nd refusal to sell will warrant disqualification, and suspension for remainder of season.

34.3 All weights attained with driver in seat.

34.4 Tungsten or liquid weight is not allowed.

34.5 Non-conforming parts will be subject to additional weight.

34.6 Music City Motorplex Track Officials reserves the right to adjust, alter or change the minimum base weights, as they deem necessary to ensure a level playing field, by technical bulletin.

34.7 All official weights are determined by NASCAR officials and the Music City Motorplex scales only.

35. FUEL CELL INSTALLATION

35.1 Must conform to guidelines and tolerances as specified by the NASCAR Weekly Series Late Model or ASA Late Model Rulebooks.

36. PERSONAL PROTECTION REQUIREMENTS – SECTION 7

37. ELIGIBILITY (SEE SECTION 3)

38. GENERAL POLICY

38.1 Late Model teams must notify race control of team's radio frequency used in competition.

38.2 Side window and door areas must remain open other than window nets.

38.3 Two-way radios mandatory in Late Model division, however each team using radios must scan Music City Motorplex "race" frequency.

36. NUMBER AND APPEARANCE – SECTION 7

37. TYPES OF RACING EVENTS

All Late Model events are NASCAR sanctioned events unless noted.

38. CLAIM RULES

See section 4 and must be addressed to Director of Competition.