2020 Limited Late Model Stock Rules

$1,000.00 Fine for tire soaking

$100.00 Fine for antifreeze

The Limited Late Model Limited Division will run under the 2020 NASCAR Whelen All American Series Late Model Stock Car Rules with the following allowances.

Competing Models

1. 1996-2016 American-made passenger car production sedans.
2. Ford: Thunderbird, Taurus, Fusion.
3. Pontiac: Grand Prix
4. Chevrolet: Lumina, Monte Carlo, Impala
5. Dodge: Intrepid, Charger
6. Toyota: Camry
7. Chevrolet Camero and Ford mustang bodies allowed, must be installed at the manufacturers specifications and approved by TCMS Tech Director. Rear spoiler must meet 2016 NASCAR LMSC specifications.

Overall Car Weight (total/right side)

1. Chevy ZZ4/603 & Ford 347JR 390 stock. 1" plate 3100-1400.
2. Chevy 604 crate engine: 500cfm .750 plate. 3100/1400. 450cfm 3100/1375
3. Ford 347SR 3100/1400 ;350cfm .750 plate.
4. Hickory Little Engine 3000/1350. (3050/1375 with 500 gram piston)
5. LMS 3100/1400. 350cfm .750 plate.
6. 602 crate engine. 3050/1350 650cfm with 1" plate.
7. HMS Enforcer 3100/1400;350 cfm .750 plate.
   When cars are weighed after a race, only water in the radiator, 2 quarts of oil in the engine, and fuel as determined by Director of Competition. No wheels or tires changed. Car must meet minimum weight after qualifying. All weights are with driver.

Detailed Car Body Requirements

1. Refer to LMSC 2020 with the following allowances:
2. 46 inch Maximum measurement from the leading edge of front air dam to center line of right front spindle.
3. Steel Body cars refer to the LMSC (2009)

General Engine Requirements

ZZ4 Crate Motor (PN#88958603)

1. Engine must be stock out of the crate except for the following.
2. Valve covers may be changed.
3. Oil pan may be changed. Late Model Stock rules apply.
4. Valve springs must be stock for ZZ4 engine (No Aftermarket Springs)
5. **Optional:** GM 604 "Beehive" type valve springs may be used but remain as specified in the GM Performance Parts Circle Track Engine Technical Manual (No aftermarket springs). Shimming will be permitted to maintain 1.78" installed height as per GM Performance Parts Circle Track Technical Manual.
6. 1:5 Scorpion or GM only rocker arms.
7. Polylock rocker arm nuts will be permitted.
8. Carburetor Holley HP80507-1 390 cfm stock out of the box. Only changes allowed are the power valve, squirters, screw-in air bleeds and jets. Recommended that boosters be epoxied to carburetor body. Only Holley replacement parts allowed.
9. A one piece open hole solid aluminum carburetor spacer, a maximum **1"** in thickness, may be used between the intake manifold and the carburetor. The spacer must be centered on the intake manifold with a single open hole which must be cut perpendicular with the base of the carburetor. Taper, bevels, or any other modifications will not be permitted.
10. A one piece, one hole paper gasket. Maximum .065" thickness that matches the exterior dimensions of the carburetor throttle base plate must be installed between the carburetor and spacer. A one piece paper gasket maximum .065" thickness must be installed between the spacer and intake manifold. The gasket must not be larger than the top of the intake.
11. The bottom of the air filter housing must be lower or equal to the top of the carburetor vent tubes.
12. Offset air cleaner may be used for distributor clearance.
13. No spacer between air cleaner base and carburetor.
14. Same as LMSC, except offset allowed for distributor clearance.
15. Stock vibration dampener only!
16. Any non-approved modifications may result in confiscation of entire engine assembly including but not limited to, intake, starter, valve covers, rocker arms, springs, etc.
17. Crate motor technical specifications will be based on the GM Performance Parts Circle Track Crate Engine Technical Manual part # 88958668 revised 2012.
18. All crate engines must be located with the #1 spark plug lining up to the right side upper ball joint.

GM Fast Burn 350/400 Circle Track Engine (PN#88958604)

1. Fast burn crate engine will use only an approved Holley 2 barrel 450 cfm Carburetor or either stock 500 cfm Holley 500 cfm Holley Ultra XP. Only changes that will be allowed are the power valve, squirters, screw-in air bleeds and jets. Recommended that the boosters be epoxied to carburetor body. Only Holley replacement parts allowed.
2. Engine must remain completely stock except for valve covers and oil pan. See Late Model Stock NASCAR rulebook for oil pan rules.
3. All crate engines must be located with the #1 spark plug lining up to the right side upper ball joint.

4. GM 604 Crate Motors may run any 1.5 aluminum self-aligning rocker arms with 3/8" stud. A combination of 1.5 rocker arms is approved, however rockers must be on the intake valves with 1.5 rockers on the exhaust valves. No staggering rocker arms.
5. GM 604 Crate Motors without new style 'Beehive Springs' may use aftermarket retainers, keepers, locators/spacers, but all parts must be magnetic steel. Shimming will be permitted to maintain 1.78" installed height as per GM Performance Parts Circle Track Engine Technical manual.
6. GM 604 valve springs must remain as a specified in the GM Performance Parts Circle Track Engine Technical Manual. (No aftermarket springs).
7. Crate motor technical specifications will be based on the GM Performance Parts Circle Track Engine Technical Manual part #88958668 revised 2012
8. .030 overbore has been approved for 603 and 604, approved piston is mahle part# 224-3497-030. Competition cam valve springs part# 26975-16 will be permitted. Total seal piston rings part# cr6264 or part# cr6264-5 will be permitted. Mahle piston part# 101p36 will be permitted with up to a .005 overbore with no penalty. Main and rod bearings may be replaced with standard "P" bearings with no coating, heat treating or narrowed. Scat rod may be used part# icr5700. All crate engjnes may replace valves with Ferrera valves part# f5001. Harmonic balancer with gm part# 12551537.

M-6007-S347JR Crate Engine

1. Crate motor technical specifications will be based on the 347 Series Ford Racing Tech Spec Manual.
2. Valve covers and oil pan may be changed. See Late Model Stock NASCAR rulebook for oil pan rules.
3. Carburetor Holley HP80507-1 (same as 604). You may change jets, squirters, screw-in air bleeds and power valve only. Recommended that boosters be epoxied to carburetor body. Only Holley replacement parts allowed.
4. A one piece open hole solid aluminum carburetor spacer, a maximum ¾" in thickness, same as 604 may be used between the intake manifold and the carburetor. The spacer must be centered on the intake manifold with a single open hole which must be cut perpendicular with the base of the carburetor. Taper, bevels, or any other modifications will not be permitted.
5. A one piece, one hole paper gasket. Maximum .065" thickness that matches the exterior dimensions of the carburetor throttle base plate must be installed between the carburetor and spacer. A one piece paper gasket maximum .065" thickness must be installed between the spacer and the intake manifold. The gasket must not be larger than the top of the intake.
6. The bottom of the air filter housing must be lower or equal to the top of the carburetor vent tubes.
7. Any non-approved modifications may result in confiscation of entire engine assembly including but not limited to, intake, starter, valve covers, rocker arms, springs, etc.
8. All crate engines must be located with the #1 spark plus lining up to the right side upper ball joint.
9. Rules may be adjusted as needed.

Ford part # M-6007 D347SR Engine

1. D347SR engine will use only an approved Holley 2 barrel 350 cfm Carburetor.
2. .750" thick maximum NASCAR LMSC approved aluminum spacer allowed between carburetor and intake manifold.

3. Engine must remain completely stock except for valve covers and oil pan. See Late Model Stock NASCAR rulebook for oil pan rules.
4. All crate engines must be located with the #1 spark plug lining up to right side upper ball joint.
5. Crate motor technical specifications will be based on the 347 Series Ford Racing Tech Spec Manual.

Hickory Little Motor

1. Must be standard factory production engine.
2. Maximum cubic inch displacement: General Motors-350 cubic inch plus maximum 0.060 inch overbore. Ford-351 cubic inch plus maximum 0.050 overbore. Dodge-360 cubic inch plus maximum 0.035 overbore.
3. OEM crankshaft only.
4. Stock stroke only.
5. No deburring or polishing of crankshaft.
6. Balancing only.
7. Stock, standard balancer only.
8. 600 gram piston/pin combo minimum.
9. 500 gam piston/pin add 50lbs, 25 on each side.
10. 5.7 length rod Chevrolet, 6.0 length in Ford and Chrysler.
11. Heads must be standard production. Chevrolet must be straight plug. Maximum valve size intake 2.02,exhaust 1.60. Ford/Chrysler same as LMSC.
12. No Titanium valves or parts.
13. Heads minimum 62cc.
14. Intake Chevrolet Edelbrock #2101, #2116, or GM casting #12464340.
15. Ford Windsor Edelbrock #M9424-C358
16. Holley 350 2BBL as per LMSC (2006).
17. Cams may be solid or hydraulic but must have a maximum valve lift of no more than .475 measured at the valve retainer as engine was raced. No Roller Cams.
18. Roller rockers may be used.
19. Headers may be used. LMSC 2019 type only.
20. Exhaust pipes must be as LMSC 2019.
21. HEI or MSD ignition allowed. No Magnetos.
22. 7 ¼" or 5 ½" clutch allowed. Steel flywheel only.

350/350 Crate Motor (PN#88958602)

1. Engine must be stock out of the crate except for the following:
2. Valve covers may be changes.
3. Oil pan may be changed. LMSC rules apply.
4. Carburetor Holley HP80507-I 650 cfm stock out of the box. Only changes allowed are 1" plate, power valve, squirters, screw-in air bleeds and jets. Recommended that boosters be epoxied to carburetor body. Only Holley replacement parts allowed.
5. Spacer between the air cleaner base and the carburetor must be attached to the air cleaner and the highest part of the bottom of the air filter housing must be equal or lower to the top of the carburetor vent tubes.

6. 1 paper gasket only maximum thickness .065 each.
7. Offset air cleaner may be used for distributor clearance.
8. Stock vibration dampener only!
9. Any non-approved modifications will result in confiscation of entire motor including but not limited to intake, starter, valve covers, rocker arms, springs, etc.
10. Stock timing cover required.
11. Crate Motor technical specifications will be based on the GM Performance Parts Circle Track Crate Engine Technical Manual part #88958668 revised 2012.

HMS Enforcer (Harrington Spec)

HMS Enforcer engine will use only the Holley 2 barrel 350 cfm Carburetor.
.750" thick maximum NASCAR LMSC approved aluminum spacer allowed between carburetor and intake manifold.
Engine must be located with the #1 spark plug lining up to the right side upper ball joint.
HMS Enforcer engine technical specifications will be based on the HMS Enforcer Technical Manual.
Any engine items not covered in HMS Enforcer manual or Tri-County Motor Speedway rules, refer to NASCAR Late Model Stock rulebook.

Late Model Stock Engine

1. Refer to LMSC (2019)
2. Late Model Stock engine will use either an approved Holley 2 barrel 350 cfm or 350 cfm carburetor.
3. .750" thick maximum NASCAR LMSC approved aluminum spacer allowed between carburetor and intake manifold.

350 2300 Carburetor (from NASCAR LMSC Rulebook 2006

The Holley two (2) barrel carburetor, list number 7448 and the Holley 2300 HP two (2) barrel carburetor, part number 80787-1, with a venturi size of 1 3/16 inches and maintaining a throttle bore maximum size of 1 ½". The Holley 2300 two (2) barrel carburetor, list number 7448 and the Holley 2300 HP two (2) barrel carburetor, part number 80787-1, are the only 350cfm carburetors that will be permitted on all models. The venturis must maintain a round (circular) cross section. Only Holley replacement or service parts can be used in any carburetor rework. Carburetors and/or carburetor components machined from billet materials will not be permitted.

Holley 2300 and 2300HP two (2) barrel Carburetor Rework Guidelines

Reshaping, polishing, grinding, or drilling of additional holes will **not be permitted**. The maximum size for the air bleed holes in the top of the carburetor body will be 0.080 inch for al four (4) holes. Screw-in air bleed jets will **not be permitted** in the 2300 main body. Screw-in air bleed jets will be permitted for the 2300HP main body, but they must be epoxied in place. For the Holley 2300HP main body, the amount of holes and passages must remain as manufactured. Additional and/or plugging holes or passages will **not be permitted** in the Holley.

The choke may be removed, but all screw holes must be permanently sealed.

Choke horn must not be removed.

The booster type must not be changed. The Holley booster part number 45R-107-1, with the casting number 45R-107 and part number 45R-312R, with the casting number 45R-312 are the only boosters that will be permitted. The Holley casting numbers must remain legible on the top of all booster stems. Size or shape must not be altered. Height and location of the boosters must remain as manufactured. All boosters must maintain a minimum outside diameter of 0.616 inch. The addition of material will **not be permitted** to the boosters with the exception of a small amount of epoxy that may be used to assist in securing the booster stem to the main body of the carburetor.

The venturi arca must not be altered or reshaped in any manner. The venturi must maintain a circular (round) cross section. The casting ring must not be removed. The location of the venturi must remain as produced by the manufacturer.

Alterations that, in the judgement of Track Officials, were made to allow additional air to be picked up below the opening of the venturi such as altered gaskets, base plates, and drilling holes into the carburetor will **not be permitted**.

The carburetor throttle body must be used as provided by the manufacturer. The positioning of the throttle bores in the carburetor throttle body must be the same as provided by the manufacturer. The throttle bores must be completely. The throttle bores must be straight without taper from top to bottom. The throttle bores must remain perpendicular to the top and bottom of the carburetor throttle body. The throttle body (base plate) must not be altered in shape or size. All vacuum holes must be threaded and plugged. Stock throttle plates (butterflies) must not be thinned or tapered. Idle holes may be drilled in butterflies. Screw ends may be cut even with the shafts, but the screw heads must remain standard.

Throttle shafts must remain stock and must not be thinned or cut in any manner.

Only Holley metering blocks can be used. Surfacing of the metering blocks for improved gasket seal will be permitted. The only metering blocks permitted for the Holley 2300HP carburetor (80787-1) will be the Holley, part numbers 11938N, 11886 (390HP) and 12323 (screw in emulsion bleed jets) metering blocks. To order metering block part number 12323 (screw in emulsion bleed jets) the sales number is 134-276. For the Holley 2300HP approved metering blocks, the amount of holes and passages and the location must remain as manufactured with screw in emulsion bleed jets in each jet passage, however, hole sizes may be altered in the jets. Blanks without holes may be used. Additional holes or passages will not be permitted in the Holley 2300HP approved metering blocks. The Holley metering block, part number 12323 (screw in emulsion bleed jets) will not be permitted in the Holley 2300, list number 7448. The accelerator pump discharge nozzle must not be changed. The retaining screw must not be drilled for a discharge passage. Jets, Power Valve, and Float may be changed.

NASCAR 2019 Rulebook Track Changes

20F-2.2 Overall Car Weight

All weights are with driver before and after qualifying and the race. When cars are weighed after the race, the only additional fluids that may be added to make weight will be enough water to top off the radiator, maximum of 2 quarts of motor oil in the engine and enough racing fuel to top off fuel cell at base of filler neck at bottom of vent hose. As specified in TCMS Race Procedures.

20F-10.6 REAR AXLE-Refer to LMSC 2019 with the following exception.

20F-12.1 COIL SPRINGS/SPRING MOUNTS/JACKING BOLTS (SUSPENSION TRAVEL)

NO TRAVEL LIMITING DEVICE ALLOWED!

20F-12.3 Shock Absorbers SHOCKS

ANY NON ADJUSTABLE OIL SHOCK

1. Shocks will be controlled by a $150.00 per shock claimer rule. Any competitor finishing with one (1) position of the claimee may claim the shocks from that event. The claim must be made in writing within 10 minutes after the event accompanied by the cash. You are claiming bare shocks only. (no coil over kits) Anyone not allowing their shocks to be claimed will forfeit the purse and points for that event and may be fined.
2. Sway Bar maximum 1 ½ inches with 1 ¾ inch ends.

Tires

1. Week 1, all drivers are required to buy 4 tires. Week 2, all drivers will be allowed to purchase 2 tires. New tires must be mounted on the left side. 2 tires will be impounded weekly. Any competitor that arrives after week 1 will be required to buy 40 lap scuffs from TCMS. NO OUTSIDE TIRES.
2. **NO tire treatment of any kind permitted**.

Safety Requirements

See TCMS general rules.