

## Hickory Motor Speedway 2012 Limited Late Model Stock Rules

**\$1000 fine for tire soaking**

**\$100 fine for antifreeze**

### COMPETING MODELS:

1. 1996-2009 American-made Passenger car production sedans.
2. Ford: Thunderbird, Taurus
3. Pontiac: Grand Prix
4. Chevrolet: Lumina, Monte Carlo
5. Dodge: Intrepid, Charger
6. Toyota: Camry
7. *Chevrolet Camaro and Ford Mustang bodies are approved, must be installed at the manufactures specifications.*

### BODIES

1. Refer to LMSC (2009)

### OVERALL CAR WEIGHT (total/right side)

1. ZZ4 engine: 3000/1350 lbs with driver.
2. Hickory little motor: 2900/1300 lbs. with driver. (2950/1325 with 500 gram pistons).
3. Late Model Stock motor 3000/1325 with driver.
4. 8602 Crate Motor 3000/1325

When cars are weighed after a race, only water in the radiator, 2 quarts of oil in the engine, and fuel as determined by race officials may be added. No wheels or tires may be changed.

### DETAILED CAR BODY REQUIREMENTS

1. Refer to LMSC (2009)
2. Spoilers – Refer to LMSC (2009)
3. Windshield – Refer to LMSC (2009)
4. Rear Window – Refer to LMSC (2009)
5. Side window Glass/Window screen – Refer to LMSC (2009)
6. Rear view mirror – Refer to LMSC (2009)
7. All cars must have dash panel made of metal and acceptable to track officials. Half dash panel ok.
8. Fire Walls – Refer to LMSC (2009)
9. Doors – Refer to LMSC (2009)
10. Fender, Quarter Panels, and Rocker Panels – Refer to LMSC (2009)
11. Grills – Refer to LMSC (2009)
12. Hoods/Roofs – LMSC (2009)
13. Rear Deck Lids / Trunks – Refer to LMSC (2009)
14. Bumper Covers – Refer to LMSC (2009)
15. Identification and Markings – Refer to LMSC (2009)
16. Car Body Measurements - See diagram in rear of book

## 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. Valves springs must be stock for ZZ4 engine.
5. Polylock rocker arm nuts will be permitted.
6. Carburetor Holley HP80507-I 390 cfm stock out of the box. You may change jets and power valve only.
7. The bottom of the air filter housing must be lower or equal to the top of the carburetor vent tubes.
8. No spacer plate allowed. Carburetor must be bolted directly to the intake manifold.
9. 1 paper gasket only maximum thickness .065 each.
10. Offset air cleaner may be used for distributor clearance.
11. No spacer between air cleaner base and carburetor.
12. Same as LMSC, except offset allowed for distributor clearance.
13. Stock vibration dampener only!
14. Any non-approved modifications may result in confiscation of entire motor including but not limited to intake, starter, valve covers, rocker arms, springs, etc.
15. Crate motor technical specifications will be based on the GM Performance Parts Circle Track Crate Engine Technical Manual part# 88958668 revised May 2010.

### Hickory little motor

1. Must be standard factory production engine.
2. OEM crankshaft only.
3. Stock stroke only.
4. No deburring or polishing of crankshaft.
5. Balancing only.
6. Stock, standard balancer only.
7. 600 gram piston/pin combo minimum.
8. 500 gram piston/pin add 50 lbs, 25 on each side.
9. 5.7 length rod Chevrolet, 6.0 length in Ford Chrysler.
10. Heads must be standard production. Chevrolet must be straight plug. Maximum valve size intake 2.02, exhaust 1.60. Ford/Chrysler same as LMSC.
11. No Titanium valves or parts
12. Heads minimum 62cc .
13. Intake Chevrolet Edelbrock #2101, #2116, or GM casting number 12464340.
14. Ford Windsor Edelbrock # M9424-C358
15. Holley 350 2BBL as per LMSC (2006)
16. 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.
17. Roller rockers may be used.
18. Headers may be used. LMSC (2009) type only.
19. Exhaust pipes must be as LMSC (2009).
20. HEI or MSD ignition allowed. No magnetos.
21. 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 changed.
3. Oil pan may be changed. Late Model Stock rules apply.
4. Carburetor Holley HP80507-I 390 cfm stock out of the box. You may change jets and power valve only.
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.

### **Late Model Stock Engine**

1. Refer to LMSC (2009)
2. Carburetor 350 cfm Holly 2300 as per LMSC rules (2006)

### **350 2300 CARBURETOR (from NASCAR LMSC Rulebook 2006)**

The Holley 2300 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 1-1/2 inches (see B. below for Holley carburetor rework guidelines.) 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 350-CFM 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 2300 HP two (2) barrel Carburetor Rework Guidelines**

#### **Carburetor Main Body**

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 all 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 2300 HP main body, but they must be epoxied in place. For the Holley 2300 HP 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

#### **2300 HP main body.**

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

#### **Choke Horn**

Choke horn must not be removed.

#### **Carburetor Boosters**

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.

#### **Carburetor Venturi**

The venturi area 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 judgment 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.

#### **Carburetor Throttle Body (base plate)**

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 round. 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.

#### **(Throttle Plates (butterflies))**

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**

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

### **Carburetor Metering Blocks**

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 2300 HP 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 2300 HP 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 2300 HP 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.

### **Accelerator Pump**

The accelerator pump discharge nozzle must not be changed. The retaining screw must not be drilled for a discharge passage.

### **Power Valves and Floats**

May be altered

### **AIR CLEANER / AIR FILTER**

1. Refer to LMSC (2009).

### **TRANSMISSION**

2. 3- OR 4-Speed production transmissions allowed. All forward and reverse gears must be working. No aluminum gears.
3. No straight cut gears.

### **BATTERY**

1. Battery must be in an enclosed battery box.
2. Battery must be located between frame rails, between front and rear tires.

**RADIATOR** – Refer to LMSC (2009).

**FAN** – Refer to LMSC (2009)

**BELLHOUSING** – Refer to LMSC (2009).

**DRIVESHAFT** – Refer to LMSC(2009)

**REAR AXLE** – Refer to LMSC (2009). 9" Ford may be used.

### **COIL SPRINGS**

1. Refer to LMSC (2009).

### **SHOCKS**

1. **Shocks will be controlled by a \$150.00 per shock claimer rule. Any competitor finishing within three (3) positions of the claimer may claim the shocks from that event. The claim must be made in writing within 20 minutes after the event accompanied by the cash. Anyone not allowing their shocks to be claimed will forfeit the purse and points for that event and may be fined.**
2. Adjustable shocks allowed

### **WHEELS**

1. 15" Wheels only 5 lugs.
2. All 4 wheels must have same offset
3. All 4 wheels must be same width 10".
4. No bleeder valves permitted
5. Either 5 x 5 or wide 5 hubs allowed.
6. At least 3 threads must be visible outside the lug nut on all wheel studs.

### **TIRES**

1. Competitors will be required to purchase 5 used Goodyear 2902's from HMS every week.
2. No tire treatment of any kind permitted.
3. See general rules.

**SUSPENSION** – Refer LMSC (2009)

**TREAD WIDTH** – Refer to LMSC (2009)

**WHEELBASE**

1. All cars will compete with a wheelbase of 105 inches plus or minus 3/8" on left side or right side.

**BODY HEIGHT** - Refer to LMSC (2009)

**GROUND CLEARANCE** – Refer to LMSC (2009)

**CAR HEIGHT ADJUSTMENT**

1. NO adjustments allowed in driver's compartment.
2. NO electrical, pneumatic, hydraulic, remote control, or any other device that changes the handling characteristics or height of car will be permitted.

**STEERING COMPONENTS** Refer to LMSC (2009)

**BRAKES** – Refer to LMSC (2009)

**FUEL CELL / RELATED COMPONENTS** – Refer to LMSC (2009)

**FUEL FILLER** – Refer to LMSC (2009).

**ROLL BARS / ROLL CAGES** – Refer to LMSC (2009).

**SAFETY REQUIREMENTS**

1. At all times during an event (practice, qualifying, and competition), drivers should connect their helmet to a Track approved head-and-neck restraint device/system. The head-and-neck restraint device/system when connected, should be configured, maintained, and used in accordance with the manufacturer's instructions.
2. IT IS THE RESPONSIBILITY FOR THE DRIVER, NOT TRACK OFFICIALS OR THE PROMOTER, TO INSURE THAT HIS/HER DEVICE/SYSTEM IS TRACK APPROVED, CORRECTLY INSTALLED, MAINTAINED, AND PROPERLY USED.
3. The following are the currently TRACK approved Head and Neck Restraint Devices/Systems: HANS Device, Hutchens Device
4. ANY ITEMS NOT COVERED IN THE ABOVE RULES WILL BE AT OFFICIALS' DISCRETION.