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## SECTION 4 – 2023 LIMITED SPORTSMAN RULES

Updates in red | Updated 8/9/2023

### 4-1 Competing Models

- A. The following cars are eligible for competition: **1999-2023**

### 4-2 2006 Steel Body Panels with plastic type fenders

- A. Front and rear bumper covers are approved.
- B. No mixing of the 2007 Composite bodies.
- C. Front and rear bumper must meet track official approval.

### 4-3 Eligible 2007-2023 Composite Bodies

- A. The bodies must contain the approved composite roof and components.
- B. Approved composite fenders, quarters, front and rear bumpers covers and hood.
- C. Approved door and deck lid must be steel or aluminum.
- D. All cars must compete with a 105-inch wheelbase. When measuring wheelbase, one side measurement must be 105" wheelbase. Maximum allowable tolerance cannot exceed ½-inch plus or minus on the other side. In order to obtain the 105-inch wheelbase, the front and rear wheels must be moved an equal distance.

### 4-4 Car Bodies

- A. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.
- B. Front spoilers must maintain a minimum ground clearance of four (4) inches.

### 4-5 Overall Car Weight

- A. All added in weight must be painted white and stamped with car number on all sides. Added weight must be in blocks of no less than five lbs. All added weight must be securely fastened with ½-inch bolts and lock nuts. No tie wrapping or taping permitted. Any weight that falls off racecar while on racetrack may be fined \$250.00.
- B. Any unattached weight found in car after qualifying or after event will be an automatic disqualification of times and or event.

C. Refer to General Rules for more.

## 4-6 Engines

**Cars must run a decal on left front fender stating engine and weight.**

A. Part # New P/N 88869602 / Old P/N 19258602

1. Total weight: **3,050** lbs.; right side: **1,375** lbs.
2. Holley 650 CFM four (4) barrel part # 80541-1 or 80541-2
3. One (1) inch single hole spacer plate
4. Oil pan may be changed, refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

B. Part #88958603 (Limited Crate Engine)(Refer to GM Tech Manual) (Technical Manual Part #88958668)

1. Total weight: ~~3,100~~ **3,075** lbs.; right side: ~~1,400~~ **1,375** lbs. (updated with 8/9/23 bulletin).
2. Holly 390 CFM four (4) Barrel part #0-80507-1
3. One (1) inch single (1) hole spacer plate
4. Optional valve springs GM part #19300952 (complete kit) GM part #12499224 GM Valve spring
5. Mahle replacement piston part #224-3853 (.002 over) **Must run a decal on left side of hood showing +.002**
6. Mahle replacement piston part # 930127805 (.005 over) **Must run decal on left side of hood showing +.005**
7. Any GM crate Part# 88958603 with the .002 or .005 oversized pistons will weigh 3,100 lbs. total weight and 1,410 lbs. of that on the right side.

C. Part #88869604

1. Stock 1.5 or 1.6 ratio Rocker arms, no mixing of rocker arm ratio
2. **Holley two (2) barrel, 500 CFM HP, P/Ns 80583-1 and 4412 HB or 500 CFM XP, P/Ns 4412HBX, 4412BX and 4412BK will be used for the P/N #88958604 engine**
3. Total weight: **3,125** lbs.; right side: **1,425** lbs.
4. The GM 604 crate engine will have a max allowable RPM of 6,600 with 1.6 rocker arms and 6,700 with 1.5 rocker arms.
5. Additional adjustments may be made if needed to ensure fair competition.

D. Ford 347 Jr. part #M-6007-S347JR

1. Must meet all specs that are in the Ford Handbook
2. Holly 390 CFM (4) Barrel part #0-80507-1
3. No spacer plate
4. Oil pan may be changed, refer to NASCAR rulebook
5. Total weight: 3,100 lbs.; right side: 1,400.

E. NASCAR General Motors Steel head engines

- A. Refer to 2018 NASCAR Advance Auto Parts Weekly Series Rule Book for guidelines.
- B. Holley 350 two (2) barrel
- C. Total weight: 3,050 lbs.; right side: 1,375 lbs.
- D. One (1) inch thick super sucker style spacer plate will be allowed

\*Note: Any crate engine found to be not in compliance will be confiscated by the Speedway. This means complete engine, as shipped from manufacturer.

**RULES WILL BE ADJUSTED BY TRACK OFFICIALS AT ANY TIME DURING THE TRANSITIONING OF THESE ENGINE COMBINATIONS TO EQUAL COMPETITION, RESTRICTOR PLATES, WEIGHT ADJUSTMENTS, MAXIMUM RPM LIMITS, OR GEAR RULES WILL BE USED IF ADJUSTMENTS ARE NECESSARY.**

**4-7 Carburetor**

- A. Holley 390 CFM four (4) Barrel part #0-80507-1
  1. No modifications: must be stock out of box. The only alterations permitted are: the power valve size may be changed and the jet size may be changed.
  2. All air leaks must be sealed. See the track carburetor spec sheet/guidelines on the Holley 390.
  3. The bottom of the air filter housing must be lower or equal to the top of the carburetor vent tubes.
  4. Both spray pumps must be operational.
- B. 350 Carburetor:
  1. The Holley 350cfm 2300 2BBL carburetor #7448 or #80787-1 ARE THE ONLY APPROVED CARBURETORS.
- C. 350 Carburetor (from NASCAR LMSC Rule Book 2006):

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

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

##### 1. Carburetor Main Body:

- i. Reshaping, polishing, grinding, or drilling of additional holes will not be permitted. The maximum size for 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 be permitted 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.
- ii. The choke may be removed, but all screw holes must be permanently sealed.

#### E. Choke Horn:

1. Choke horn must not be removed.

#### F. Carburetor Boosters:

1. The booster type must not be changed. The Holley booster part number 45R-107-1, with casting number 45R-107 and part number 45R-312R, with the casting number 45R-312 are the only boosters 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 booster must remain 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.

#### G. Carburetor Venturi:

1. 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.

2. Alterations that, in the judgment of series officials, were made to allow 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.

#### H. Carburetor Throttle Body (base plates):

1. 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.
2. Throttle plates (butterflies):
  - i. 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.
3. Throttle Shafts:
  - i. Shafts must remain stock must not be thinned or cut in any manner.

#### I. Carburetor Metering Blocks:

1. Only Holley metering block may 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 #'s 11938N, 11886 (390HP) and 12323 (screw in emulsion bleed jets) metering block. To order metering block part # 12323 (screw in emulsion bleed jets) the sales # is 134-276.
2. 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.
3. The Holley metering block, part # 12323 (screw in emulsion bleed jets) will not be permitted in the Holley 2300HP, list # 7448.

#### J. Accelerator Pump:

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

#### K. Power Valves and Floats:

1. May be altered.

#### L. Carburetor Spacer – 350 cfm carburetor:

1. Only a one (1) piece, solid, aluminum carburetor spacer, a minimum of .700-inch and maximum .750-inch in thickness must be installed between the intake manifold and carburetor.
2. The spacer must be centered on the intake manifold and have two (2) round holes with 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.
3. A one-piece paper gasket maximum .065-inch thick must be installed between carburetor and spacer. A one-piece paper gasket maximum .065-inch thick must be installed between the spacer and intake manifold.

**M. Holley two (2) barrel, 500 CFM HP, P/Ns 80583-1 and 4412 HB or 500 CFM XP, P/Ns 4412HBX, 4412BX and 4412BK will be used for the P/N #88958604 engine.**

1. No machine work allowed. Jets and power valve may be changed as long as the replacement parts are manufactured by Holley.
2. A one-piece solid aluminum carburetor spacer, one (1) inch maximum thickness may be installed between the intake manifold and the carburetor.
3. Spacer must be centered on the intake manifold and may be open or the two (2) hole type. No tapers bevels or any modifications permitted.

#### **4-8 Air Cleaner**

- A. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

#### **4-9 Electrical Systems:**

- A. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

#### **4-10 Fan**

- A. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

#### **4-11 Engine Oiling System**

- A. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

#### **4-12 Exhaust System**

- A. Headers optional
- B. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

#### **4-13 Drive Train**

- A. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

#### **4-14 Flywheel**

- B. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

#### **4-15 Starter**

- A. Only standard OEM type starters may be used. Gear driven starter allowed.

B. Starter must mount in original mounting position.

#### **4-16 Bell Housing**

A. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

#### **4-17 Transmission**

A. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

#### **4-18 Drive Shaft**

A. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

#### **4-19 Rear Axle**

A. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

#### **4-20 Wheels**

A. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

#### **4-21 Tires**

A. Refer to Tires section.

#### **4-22 Frames**

A. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

#### **4-23 Suspension**

A. Spring/Shocks: Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

1. All middle spring coils shall be taped using either body masking or cloth duct tape (preferred) – *electrical tape cannot be used*. Taping shall be wrapped without cuts in only one (1) layer and shall start at the middle coil encasing the ensure coil surface and covering two (2) full coils. This tape shall be present and easily visible pre- & post-tech. Failure to tape your coil in this exact manner will result in an immediate disqualification at post-tech inspection. Tape applied in this manner must be present at inspection and any cut or smudge to the tape resulting from coil compaction and/or touching will be an immediate disqualification. All coils must be active.

B. Adjustable shock shafts will not be permitted

#### **C. Optional Oil Spec Shocks**

1. Non rebuildable oil shocks.
2. KONI 30 series racing shocks.
3. They must remain as manufactured with part number visible and unaltered, with factory paint and will be subject to exchange. If an exchange of shocks is required by track officials, the shocks ran by the competitor must be in proper

working order. If the shock is damaged or not working properly, the competitor must replace it with either a properly used one or new one of the same number.

4. Teams running all four (4) non-rebuildable oil/Pro/Koni shocks will receive a weight break of 40 lbs. total, no more than 20 lbs. off the right side.

**D. Bump stopping and coil binding are not permitted.**

E. No Coil Binding, Bump Stops, Bump Springs or any device which limits travel is permitted. Any device(s) such as chains, cables, etc. that limit the travel of the suspension either up or down will not be permitted. When jacking the car, a minimum of two (2) inches of chassis movement is required before movement of the axle/tire assembly. All coils of the spring must be active. All downward chassis movement while the race car is in competition must be limited only by the normal increasing stiffness of the springs or the bottoming of the chassis against the race track, whichever occurs first. All middle spring coils shall be taped using cloth duct tape. Taping shall be wrapped without cuts in only one layer and shall start at the middle coil encasing the entire coil surface and covering two full coils. This tape shall be present and easily visible Pre & Post tech. Failure to tape your coil in this exact manner will result in an immediate Disqualification at post tech inspection. Tape applied in this manner must be present at inspection and any cut or smudge to the tape resulting from coil compaction and/or touching will be an immediate Disqualification. All coils must be active. No spring rubbers, or spring spacer may be used at any time. Shock Body cannot contact the lower shock mounting eyelet causing it to limit travel. Shock shaft must have an o ring or wire tie showing the travel of the shock. You must allow for all track conditions and surface changes no allowance will be given at inspection. Testing may include removal of the spring for inspection, compaction of the spring thru mechanical means or weight to the front valance.

**F. Maximum sway bar size of 1.750 will be permitted.**

**G. Car must maintain a four (4") inch ride height.**

H. Weight jacks permitted.

I. No traction bars or additional linkages permitted.

1. Three (3) point hookup permitted.

J. No hydraulic or mechanical weight shifting devices permitted.

K. Long trailing arms permitted. (Refer to NASCAR LMSC Rule Book.)

L. Monoballs permitted in trailing arms with both sides being the same; however, no heim joints or adjustable type rod ends permitted.

M. Trailing arms may be either passenger car type or pickup truck type and length. Fabricated trailing arms permitted using a minimum of two-inch by three-inch (2" x



3”) steel box tubing a minimum of .120 thick for long arms or 1-¼ inches by two (2) inches steel box tubing a minimum of .120 thick for short arms.

N. Truck arms must be the same thickness from left to right

O. Tread Width Requirements

1. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

1. South Boston Speedway will check tread width only at the center of tire, zero toe in, and at spindle height and must not exceed 64-1/2 inches measured at 11 inches on the LF and 13 inches on the RF

P. Ground Clearance Requirements

1. Frames, rails, chassis, and all sheet metal clearance with driver in car: four (4) inches.

Q. Front spoiler clearance: four (4) inches.

R. All suspension parts: four (4) inches.

S. Exhaust pipes: three (3) inches.

T. Steering Components

1. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

U. Spindles

1. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

V. Brake Components:

1. Only single piston disc brakes with stock type calipers will be permitted front and rear. Brakes must be operational on all four (4) wheels. Floating brake calipers will not be permitted.

2. Refer to NASCAR LMSC Rule Book

W. Fuel & Fuel Tanks:

1. Track fuel required. No additives allowed.

2. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

#### **4-24 Safety**

A. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

#### **4-25 Seats**

A. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

#### **4-26 Seat Belts**

A. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

B. Seat belts can be no more than three (3) years old.

**4-27 Window Net**

A. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

B. Window nets can be no more than three (3) years old.

**4-28 Fire Control**

A. Refer to NASCAR Advance Auto Parts Weekly Series Rule Book.

**4-29 Protests & Appeals**

A. Refer to General Rules or Track Officials for protest procedures.

B. Engine protest prices come from the NASCAR Advance Auto Parts Weekly Series Rule Book.

**South Boston Speedway Track Officials reserve the right to issue bulletins to the rules to ensure fairness in competition.**