

## 2019 SWS Mini Stock Rules

**Ford Powered cars that are running 5.7 inch rods MUST declare this to tech in pre-race inspection and weigh 2200 Lbs with 7448 350 cfm carb. Failure to declare this and meet this minimum weight + carb rule will result in disqualification in tech.**

### 1. COMPETING MODELS AND BODIES

- A. Any 1970 or newer American or Foreign 2 or 4 door hardtop car or truck produced with a min. 90" No Jeeps or high performance models.  
Any 2-wheel drive, 3 or 4 cylinder or 2 rotor engine. Front or rear wheel drive. No rear or mid-engine model cars.
- B. All cars must maintain stock appearing body for year, make and model.  
Fiberglass, steel or aluminum complete stock appearing bodies are approved. No Carbon fiber, Kevlar or titanium parts. Roof must remain stock and out of stock material.
- C. Hood and deck lid pins required.
- E. Full stock steel floorboards and firewalls required in stock location.
- F. Rear trunk area may remain open.
- G. 4" x 50" rear spoiler top 2" clear lexan.
- H. Minimum ground clearance has been intentionally omitted. Any car dragging the track or sparking will be black flagged at discretion of starter or competition director.

### 2. BUMPERS

- A. Stock bumpers are required.
- B. Front and rear bumper must be fastened to the fender and or quarter panel.
- C. Height must measure 15" to 18" center to ground.

### 3. WINDOWS

- A. A windshield made of Lexan may be used. Minimum thickness is 1/8 inch. Windshields must be supported between the dash bar and the roof halo bar with a minimum of two (2) evenly placed metal straps 1/8 inch by 1 inch or a single 1.5 inch bar in the center of the windshield welded to the dash bar and the roof halo bar. Wire mesh minimum .5" allowed.
- B. No back window allowed, rear side Lexan windows permitted.
- C. Driver side window net is required on all cars. Net material must be minimum 1 inch wide and have openings of at least one (1) inch. Net must be equipped with a quick-release device on the top left corner.
- D. Mirrors ok.

### 4. FRAMES

- A. Full NASCAR type roll cages mandatory. Bars must be a min. of 1 1/2" O.D. X .090" wall thickness, gusset as necessary for strength.
- B. Minimum of three (3) door bars required on both sides. Right side can be straight.
- C. Engine must remain in the stock location.
- D. Fuel cell protector required, no more than the width of the frame rails.
- E. Main roll cage uprights must be fastened to floor of uni-body cars with a minimum 3/16" thick plate, top and bottom, at all four corners. Plate must be a minimum of 4" square, with (4); 3/8" grade 8 bolts at each location.
- F. Roll bar padding must be used at any point where driver may make contact.
- H. Door bars must be covered with a 1/16" thick steel metal plate, top to bottom, from front and rear uprights, welded to outside of bars.
- I. Stock frames only for year make and model. No modifications allowed.

### 5. HEIGHT, WEIGHT, WIDTH AND WHEELBASE

- A. Minimum ground clearance has been intentionally omitted. Any car dragging the track or sparking will be black flagged at discretion of starter or competition director.
- B. Min. weight **2100lbs** and max. 57% left side weight at any time before and after racing or qualifying with 7448 350CFM carb. **2200 lbs with 4412 500CFM carb without 5.7" rods.**
- C. Min. wheelbase 90" must remain as factory produced.
- D. Maximum overall width (front or rear) shall not exceed 72" from outside of tire to outside of tire. Front tire width will be measured at the outer edge of the tire sidewall with driver in the car at spindle height – NO EXCEPTIONS

## **6. ENGINE**

- A. The engine must be stock for year make and model. No truck engines or parts in cars. No turbo or supercharger. No titanium parts. **Stock fuel injection is approved - add 50 lbs.**
- B. 10.0 to 1 max compression ratio
- C. Engine oil coolers allowed. No dry sump oiling.
- D. Aftermarket oil pans, valve covers, water pump, fan pullies are allowed.
- E. No "stroker" or lightweight cranks allowed, factory OEM unmodified cranks only.
- F. Heads: Stock heads only. A stock head will be characterized as a cylinder head which was offered as standard equipment with no performance advantage. **Stock for year, make and model 2 plug head is approved - add 50 lbs.**
- G. No special performance options will be allowed, including but not limited to, oversize valves, special cut valves, relocated intake or exhaust bowls or ports.
- H. No porting or polishing will be allowed.
- I. No roller rockers on the valve side or cam side permitted. Max. cam lift is .480" measured at the valve. No billet camshafts. Cast iron camshafts only.
- J. 2302 cc max. plus max. overbore .060" Trucks 2400 cc max plus max overbore .060"
- K. Engine Blocks: Stock cast iron blocks only. No modifications allowed.
- L. Stock stroke for engine being used.
- M. Stock rods and pistons only after-market rod bolts OK. No Teflon coated parts.
- N. Stock lifters only. Solid lifters permitted.
- O. Stock type timing chain or belt only.
- P. No gear drives allowed.
- Q. No crank lightening or grinding allowed.
- R. No after market lightweight cranks allowed.
- S. No titanium parts allowed
- T. Approved after-market Sportsman Crower connecting rod only part no. SP93231PF-4, SP93231B-4, SP91231PF-4, SP91231B-4 as produced no modification allowed.
- U. **Ford Engines running 5.7 inch rods MUST declare this to tech and weigh 2200 lbs. with stock 7448 350cfm carb. Failure to declare this and meet this minimum weight will result in disqualification.**

## **7. CARBURETOR**

- A. Stock Holley 7448, 350 cfm carb only at 2100lbs. Holley 4412 at 2200lbs and no 5.7" rod engine. Must remove choke butterfly plate, shaft and linkage. No other modifications allowed.
- B. 2 carburetor return springs required must be mounted to engine block.
- C. Any unmodified OEM intake manifold and max 1" thick carb spacer or adapter.
- D. No vacuum leaks permitted
- E. Fuel injection is permitted provided the car was originally equipped with fuel injection system to be used. If equipped with an electronic fuel pump, the pump MUST be wired to an oil pressure switch which will disable the fuel pump upon loss of oil pressure (When Engine Stops) Fuel injection ECU will remain STOCK as delivered by factory.

## **8. AIR CLEANERS AND FILTERS**

- A. No cold air induction allowed, K&N air filters are allowed.
- B. No air deflector allowed on front. Air filters only.
- C. Top and bottom of air cleaner must be solid and same diameter.
- D. Tubes, funnels, or any device which may control the flow of air, will not be permitted inside the air cleaner or between filter housing and carburetor.

## **9. ENGINE MOUNTS**

All mounts must be securely bolted and adjustable mounts are not permitted.

## **10. ELECTRICAL SYSTEM**

- A. Stock ignition only. No performance aftermarket distributors, components, or magnetos allowed. No msd, or dui components allowed. No traction control.
- B. All cars must be equipped with a master electrical switch located in the cockpit of the car. The switch must be within reach of the driver and safety crew from the left side of the car.
- C. Batteries must be securely mounted within the confines of the body and behind the driver, in front of the rear axle and contained in electrically insulated container. No marine or plastic type boxes allowed.

## **11. ENGINE COOLING SYSTEM**

- A. Stock or electric fans are permitted must have shroud.
- B. Water overflow catch can unit required. One (1) quart minimum, vented out to windshield, metal or plastic, mounted in engine compartment.
- C. No anti-freeze or similar products. This is a finable offense. Water Wetter ok.
- D. Any radiator in the stock location.

## **12. ENGINE EXHAUST SYSTEMS**

- A. Any Stock OEM cast exhaust manifold or steel headers are approved. **No aluminum or stainless headers.**
- B. An approved muffler is mandatory, must not exceed 95 db @100 feet.
- C. Exhaust must extend past driver's compartment and remain under car. exhaust may exit on passenger side of race car in front of right rear tire.
- D. 3" max exhaust pipe.

## **13. DRIVE TRAIN**

- A. Stock type clutch and flywheel for model being used only. No lightweight cheater parts. Clutch disc must contain all magnetic steel parts. Stock steel OEM or after-market steel billet flywheel. Aluminum flywheels are not allowed. Min. weight of the flywheel is 16 pounds. Steel scatter shield mandatory. Track scales will be official.
- B. Stock type transmission only. No modifications. All gears must be operable including reverse.
- C. Steel locked, limited slip, or positive-traction differentials are permitted.
- D. Rear end must be centered in car.
- E. Steel Floater type rear ends are permitted. No hollow axles. No Quick change rear ends.
- F. Any OEM steel rear end allowed. Must be mounted exactly as old rear end that was removed, may be used in any MFR line.
- G. 2 driveline straps, 1" x 1/8" required, mounting to be within 6" of the U-Joints are required on rear drive vehicles. Steel Drive shaft must be painted white for on track visibility in the event it should become separated from the car.
- H. No cambered or toe in rear ends.

#### **14. SUSPENSION AND BRAKES**

- A. Stock OEM lower control arms for year make and model, no modifications allowed.
- B. Stock OEM upper control arm for year make and model, no modifications allowed. Any OEM factory production type of ball joint may be used. No "Mono Ball" ball joints. Stock steel unmodified OEM spindles for year make and model. No heim joints. Stock type bushings.
- C. Stock OEM for year make and model steering components. Stock or stock replacement steering rack permitted.
- D. Racing springs ok. Lowering blocks allowed. No coil overs unless stock production for your year make and model.
- F. All other suspension components must be of original design and origin for the chassis used. No after market look alike parts to widen suspension.
- G. Any steel non adjustable shock that fits the stock mounts may be used. No heim joint or tie rod ends.
- H. One threaded weight jack bolt may be used for each spring aligned with the coil.
- I. After market pedal and master cylinder assemblies allowed.
- J. Rear disc brakes allowed. Stock steel calipers. All components must be steel. No light weight parts.
- K. Stock for year make and model brakes. 4-wheel hydraulic brakes required, and all must be in good working order. One adjustable brake bias valve allowed, must be out of the reach of the driver.
- L. Any steel 1 piece sway bar mounted in the stock position. Mounted with rubber or urethane bushings. Outer may be adjustable.
- M. No moving of suspension mounting points front or rear. If car has crash damage and has been repaired the mounting points must be to the stock specifications.

#### **15. STEERING COMPONENTS**

- A. Stock steel OEM for year make and model steering components only.
- B. Quick release steering wheels are required.
- C. Steering column must be collapsible. U joints are acceptable.

#### **16. FUEL SYSTEM**

- A. Pump fuel only or track race fuel only. No additives, octane boost, or methanol. No E85
- B. All cars must be equipped with an approved fuel cell, securely mounted in the trunk area as far forward as possible. Minimum 8" ground clearance.
- C. Fuel cell must be mounted with steel framework (1 inch x 1 inch, .065 inch minimum) and must have a vent hose and the hose must have a check valve in the end.
- D. Fuel cell must be totally enclosed in an 18 gauge steel box with a ½ inch drain hole in the lower right rear corner. Ground strap required from fill neck to frame. Tethered cap.
- E. Maximum fuel capacity 22 gallons.
- F. No electric fuel pumps permitted. If the fuel line runs through the drivers compartment it must pass through a metal tube sealed at both ends and brightly marked "do not cut fuel line".
- G. Must have fuel cell protection bar.

#### **17. TIRES AND WHEELS**

- A. Steel wheels are mandatory, max 8" width any offset.
- B. Stock type after-market long wheel studs allowed and recommended. All studs must have threads showing through the lug nut.
- C. No Bleeders
- E. Wheel spacers allowed. Max. 1/2" wheels spacers - 1 per wheel.

- F. Any 8" manufacturer treaded tire will be permitted in 2019 as takeoff's only. No new manufactured 8 inch tires will be permitted. All 8 inch takeoffs shall be approved by the Technical Director.

OSS/Havasu Goodyear tire continues to be approved. (As New or Take Off)

We will transition to the 7 inch OSS/Havasu tire exclusively for the 2020 season.

## **18. SEATS AND SAFETY EQUIPMENT**

- A. For all safety equipment. It will be the sole responsibility of the driver, not SWS, their agents/officials or corporate officers to ensure that his/her safety equipment is correctly installed, maintained, and properly used. Please refer to manufacturer installation and sage guide lines and adhere to them.
- B. Aluminum professionally built high back racing seat required. No plastic, etc.
- C. Padded headrest required.
- D. Seat must be securely bolted to a mount assembly that is an integral part of the roll cage. 6 bolts min.
- E. Seat will not be attached to the floorboard.
- F. A five (5) point safety harness, with quick release is mandatory! 3" wide lap belt, 2" or 3" shoulder belts, and a 2" submarine belt. All belts shall be attached to roll cage using minimum 3/8 grade 8 hardware and safety cables.
- G. Cotton harness components prohibited.
- H. Safety harnesses/seat belts may be no more than three (3) years old. If necessary, proof of purchase may be required.
- I. Helmets; Head and Neck Restraint Devices:
- Snell ~~SA2000~~ SA2010 or SA2015 ~~newer~~ helmet required.
  - Full face helmets with Lexan face shield mandatory.
  - Nomex helmet, skirt, and Nomex covered chinstrap highly recommended.
  - A HANS or Hutchens type head and neck restraint device is recommended
  - Neck "Horse Collar" Or "Donut" is mandatory as of 2015 – Hans or similar head and neck restraint is recommended. This will be enforced.
- J. Window net mandatory! Minimum 1" mesh with release at top only. It is required that all window net releases be updated to the quick release seat belt type with releases located and facing the outside of the car. No close mesh off-road type allowed.
- K. Fire suit mandatory at all times.
- L. Approved racing gloves mandatory. No welding gloves, gardening gloves, etc.
- M. Approved racing shoes mandatory.
- N. Eye protection is mandatory and must be in proper place at all times.
- O. Current test date (2 pound minimum) fire extinguisher to be installed in the car within drivers reach while strapped in. Steel mounts only, no plastic.
- P. All cars will be required to have in their pits a minimum of one five pound, Halon or dry chemical fire extinguisher. This is to be visible to tech officials and all crewmembers. All crew members must be made aware of this location, and knowledgeable in the use of the fire extinguisher.
- Q. Car and driver will be required to make safety rule violations comply PRIOR to racing any event.

## **19. APPEARANCE AND IDENTIFICATION**

- A. All cars are to be neatly and brightly painted.
- B. Numbers will be a minimum of 18" on the roof and both door panels. Numbers on the roof to face toward scoring tower (flag stand)
- C. Numbers assigned to car will be displayed on the top right front of windshield, 3" minimum.

- D. Drivers first and last name may be placed above each door. No duplication of numbers, additional letters such as "X", "Y", "and N" are not to be used.
- F. Advertising or names on the windshield is not permitted. This will be reserved for a series sponsor.
- G. Advertising that is deemed to be unsuitable/offensive, will not be allowed. Decision of SWS Tech Director will be official.
- H. Series sponsor decals, if any, must be placed on designated location of car to be eligible for awards. This is to be completed PRIOR to competing in any event.

## **20. COMMUNICATION**

The use of a two-way radio for communication with a spotter and/or pit crew is recommended, not mandatory.

## **21. ELECTRONICS**

- A. No electronic monitoring computer devices capable of storing or transmitting information except tachometers.
- B. No digital gauges, timing retard controls or oxygen sensors allowed (O2 sensors permitted on Fuel Injected engines)
- C. No electronic traction control devices allowed.

SWS reserves the right to alter or amend the rules and regulations in the interest of safety, cost control, and/or fair competition. It is the responsibility of each competitor to read and understand the contents of these rules. If there is a disagreement or dispute regarding the meaning or application of these rules, the decision of the SWS Tech Director shall prevail.

No expressed or implied warranty of safety shall result from publications of or compliance with these rules and/or regulations. The rules and/or regulations set forth herein are designed to provide for the orderly conduct of SWS 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 pretense is made for having designed a foolproof set of rules and regulations. The spirit and intent of the rules is the standard by which SWS events will be governed. The SWS Tech Director is authorized to decide if an equipment change or modification is an attempt to circumvent these rules. The SWS Tech Director can and will disqualify a race car in violation of the spirit and intent of these rules. If this rulebook does not specifically state that you can alter, change, or otherwise modify something on you car, you should consider it a violation of these rules. No part is deemed to have been approved by SWS by passing through prior technical inspections.

The Tech Director will be empowered to permit reasonable and appropriate deviation from any of the specifications herein or impose any further restrictions that in his 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 Tech Director. His decision is final.

These rules 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. All participants, guest and crew members fully understand that racing is inherently dangerous and that they are exposed to risks of death or serious bodily injury. The participants, guest and crew members voluntarily assume these risks.