



# 2023 FACTORY STOCK DIVISION

## R U L E B O O K

THE RULES BELOW ARE THE GENERAL GUIDELINES FOR ALL CARS THAT COMPETE IN THIS DIVISION IN THE 2022 SEASON.

IF THESE RULES DO NOT CLEARLY SAY THAT SOMETHING IS LEGAL, ASSUME THAT IT IS NOT PERMITTED.  
RULES SUBJECT TO CHANGE DUE TO SAFETY CONCERNS AND OVERLY COMPETITIVE RACE CARS.

Please email us with tech questions: [WallStadiumSpeedway@gmail.com](mailto:WallStadiumSpeedway@gmail.com)  
or call Rob Hyer at (732) 824-4507

Note: All changes and additions from 2022 will appear in **red**.

### **REQUIRED SAFETY EQUIPMENT**

- **The installation of a 5 pound fire suppression system is now required in all Factory Stock race cars. **EFFECTIVE DATE AUGUST 1, 2023.****
  - **It must at least be manual, can be upgraded to automatic.**
  - **1 nozzle required. Must be pointed into the cockpit (driver.)**
  - **SFI Certification required.**
  - **The bottle date must always be within 2 years of the current date.**  
**Recertification cost approx. \$25 plus shipping.**
  - **Bottle(s) must always be full and charged.**
  - **Visitors and drivers "new" to Wall Stadium (first race of the season) will be granted a 1 race waiver.**
  - **Turkey Derby is excluded.**
- The use of a HANS DEVICE or Hans-like device is MANDATORY. 5 year expiration.
- Window net MANDATORY.

- 5-point Harness MANDATORY. SFI 38.1 Belts good for 2 years.
- Full face Helmets are MANDATORY. Must have Snell SA 15 or newer sticker. NO motorcycle M Helmets allowed.
- Driver must wear a one piece fire suit and flame retardant underwear. Both must be in good condition, no rips or holes! SFI 5
- Full containment seat MANDATORY.
- All other New Jersey State Safety Regulations MUST BE STRICTLY ADHERED TO.

## **RULES AND SPECIFICATIONS**

All motors sealed before November 2022 must be resealed.  
Contact Rob Hyer to make an appointment at (732) 824-4507.

**American made cars only.**

**Vehicles NOT approved:**

- No mid-engine or rear engine cars.
- No cars delivered from the factory with independent rears.
- Pontiac Trans Am's allowed. 1982 and newer. No leaf springs.
- No Mustangs. No Corvettes.
- No vehicles with OEM four wheel disc brakes.
- Camaros 1982 and newer. Coil springs only.
- Firebirds 1982 and newer. Coil springs only.

**Full Frame cars only. Unibody frame connectors mandatory.**  
**Any questions call Tech Inspector!**

## **BODY SPECIFICATIONS**

- Bodies must be factory stock.
- HOOD MUST BE ON AT ALL TIMES.
- All cars must be stripped of all glass; all body moldings, head light and tail light assemblies.
- Bodies must be mounted to the frame using OEM rubber bushings and bolts. No solid (welding) of the body to the frame will be allowed.
- Door skins and body panels must be replaced with 20 gauge steel, but must be stock in appearance.

## **INTERIOR GUTTING**

All flammable materials must be removed. **Interior gutting is allowed, doors, trunk lid, and hood** bracing only. **Detachable steering wheels with padding is allowed. No excessive gutting.**

## **BUMPERS**

- Bumper corners must be rounded.
- All bumpers must be attached to the rear quarter panels and front fenders with sheet metal or lightweight steel sheets to help prevent the locking together of bumpers. This must be maintained for the season. See Rub Rail section below as an alternative.
- Front rear bumpers with bumper cover, must have 5/16" cable loop through the bumper for towing purposes.
- Homemade bumper must be behind bumper cover or nose piece.
- NO excessive bracing.
- Car must remain stock for year, make and model. This attachment must be maintained on a week to week basis.
- Roll bar tubing, 1 ½", may be made into a hoop on the front bumper from frame rail to frame rail in front of radiator.

## **RUB RAILS**

Not required but if used must be mounted flush with the body and at the height of the axle center. Ends must be closed. A single rail with a maximum tubing diameter of 1 ¾ inches may be used.

Rub rails may also be located behind the rear tire connecting to the rear bumper. Maximum two bars, but only one bar is allowed to be attached to the frame. Rails must be mounted flush to the body and be designed in such a way as to prevent hooking bumpers with fellow competitors. All edges must be smooth with no sharp protrusions.

## **ENGINES**

- Chevrolet must run 305 or 350 engines.
- Pontiacs must run 305 or 350 engines.
- Ford must run 302 or 351W (No Cleveland engines allowed).
- Mopar must run 318, 340 or 360 engines.

- Oldsmobile must run 305 or 350 engines.
- Buick must run 305 or 350 engines.
- Out of crate 602 motors, NOT rebuilt. Must call Rob Hyer before purchasing.
- Run 4412 carburetor, one spacer only Canton # 85-065.
- Minimum weight 3,400 pounds, Firebirds minimum weight 3,500 pounds
- If over or under competitive, weight will be adjusted.

## **INSPECTION HOLE**

A one inch inspection hole such as those manufactured by Moroso or Canton must be installed in the oil pan assessable for tech to inspect lower end. The plug must be installed in such a way as to not impede its use.

## **MINIMUM WEIGHT**

- Chrysler 318 must weigh 3100 lbs.
- Chrysler 340 must weigh 3300 lbs.
- Chrysler 360 must weigh 3300 lbs.
- Coil spring Camaro / Firebird must weigh 3400 pounds.
- Chevy 305 must weigh 3200 pounds.
- Chevy 350 must weigh 3300 pounds.
- Ford 302 must weigh 3200 pounds.
- Ford 351 must weigh 3300 pounds.
- No car shall have greater than 53.0% left side weight
- All weight must be in the form of lead bars (2x3 or 2x4 steel tubing filled with melted lead). No weight will be permitted inside of the driver's compartment or protruding beneath the frame rails.
- Camaros have 52.0 % left side weight
- Weight must be securely mounted on the inside of the frame rail between the front and rear tires or securely mounted in the trunk area on the package shelf.
- All weights must be painted white and clearly marked with your car number.
- All weights and percentages are ~~before the race~~, race ready with driver AT ALL TIMES
- **After 3 wins, car adds 50 lbs. For every win after that, add 50 lbs more.**

## **MOTOR SPECS**

- Absolutely Stock
- GM must run GM parts

- Ford must run Motorcraft parts
- Mopar must run Mopar parts
- **All pulleys MUST be steel except power steering. After market power steering pumps may be used if desired but must be steel pump. Any questions ask tech.**

## **CYLINDER HEADS**

- Heads must stock casting. **MUST CALL** tech with your casting numbers to make sure you are running an approved number.
- Valve jobs must be absolutely stock valves, NO multi angel valve jobs, etc.
- Must be stock c.c.
- Rocker arm ratio must not exceed 1.50:1
- Screw in studs are permitted, non hexhead only. Boss may be tapped for stud only. No other alterations allowed.
- No guide plates allowed
- No Vortec type cylinder heads or center bolt valve cover heads without the express and prior approval of the Tech Dept. Ask first to avoid unnecessary expense.

### Compression Ratio

- GM 305 9.5:1
- GM 350 9:1
- Ford 302 9.5:1
- Ford 351 9:1
- Chrysler (all) 9:1

### Approved Valve Sizes as follows:

- GM maximum valve size: 1.94 Intake, 1.5 Exhaust
- Ford maximum valve size: 2.04 Intake, 1.66 Exhaust
- Chrysler maximum valve size: 2.02 Intake, 1.60 Exhaust
- Stock valve spring diameter.
- Stock valve stem diameter 11/32.
- NO Pro-Flow neck down valves allowed.
- Valve spring seat pressure—85 pounds.
- Pushrods—Aftermarket okay- Stock length and diameter **REQUIRED**.

## **CAMSHAFT**

Any hydraulic lifter cam that does not exceed following OEM specs. Lifters must be stock length and diameter. No ceramic coated or anti-pump up hydraulic race lifters (i.e. – Rhodes lifters).

- Max intake lift .420 inch
  - Max exhaust lift .443 inch
  - Max intake duration 204 degrees @ .050 inches of lift
  - Max exhaust duration 214 degrees @ .050 inches of lift
  - Two (2) timing cover bolts must be drilled for sealing.
  - Speedpro/Sealed Power numbers CS-1014R or CS-1151R would be examples of acceptable cams.
- Cam lobe profile (above) can be checked with our Cam Pro computer program.

## **ENGINE BLOCK**

- Must be stock-NO MODIFICATIONS ALLOWED. Except as noted below.
- A maximum overbore of .040 inches will be allowed.
- Must be a cast 4 valve relief piston.
- Flat top pistons only.

## **CRANK SHAFT**

- No machining allowed i.e. knife edging, internal balancing.
- Stock

## **IGNITION**

- Stock ignition.
- Modules cannot be changed.
- GM modules must be stock type approved-

## **CARBURETOR**

- Holley ~~350~~ or 500 CFM 2 barrel carburetor only, model ~~#-2300~~ and #4412.
- All carburetors will be inspected and sealed prior to taking part in any competition. Inspection procedures will be the same as those used in other divisions at Wall Stadium Speedway.
- All throttle pedals must have toe strap.
- Carburetors MUST be equipped with 2 opposing throttle return springs.
- No internal or external modifications of any kind will be permitted i.e. knife edging throttle plates, short throttle plate screws.
- Any carburetors that are found to deviate from the stock configuration will be turned over to Wall Stadium Speedway Officials and said carburetor will become the property of Wall Stadium Speedway.

## **AIR CLEANERS**

Only round dry type paper air filter elements maintaining a minimum 12 inches and maximum 14 inches diameter will be permitted. The air filter element must maintain a minimum of 1 ½" inches, maximum three inches in height. All air must be filtered through the element. No portion of the air filter will be permitted to protrude through the hood.

## **FUEL SYSTEM**

**Fuel Cell:** An approved fuel cell must be used. Maximum capacity is 22 gallons.

- BOTTOM OF FUEL CELL MUST BE SITTING CENTERED ON TOP OF THE TRUNK FLOOR.
- Cell must be encased in an approved steel container made of 20-gauge steel. The fuel cell must be mounted in the trunk area and four straps minimum 1/8" X 1" wide steel must secure the cell.
- The cell must be mounted as far forward as possible and be centered in the car. A 1" maximum vent to the outside of the body at the left rear taillight must be installed.

**A rear bar will be allowed around the fuel cell for additional protection. Bar must be located behind the fuel cell and go from frame rail to frame rail. This bar may additionally be connected to the angled down bars of the roll cage. 1 ¾ x .095 max tubing size.**

### **Fuel Pump**

- Stock fuel pump only.
- No aftermarket fuel pumps.

### **Fuel Lines**

- Half inch fuel line running under car.
- Fuel shut off within reach of driver-Mandatory.
- Shut off must be clearly marked with a bright and contrasting color.
- Must be steel (fuel lines).

## **INTAKE**

- Cast iron two barrel intakes only.
- No aftermarket manifolds.
- No modifications of any kind will be permitted. i.e. acid porting, port matching, etc.
- A carburetor spacer/adaptor having a maximum thickness of one inch will be permitted.
- Spacer/adaptor plate may not be slotted, moveable, or in any way adjustable.
- Spacer/adaptor plate may not be modified in any way.
- NO EGR type manifolds allowed.
- An appropriately placed vacuum port must be provided in order to check engine vacuum.
- Vacuum must be 17-21 inches @ 850 RPM in neutral first time checked.
- Any deviation at all below 17 inches will be reason for disqualification.

## **EXHAUST**

### **Manifold**

- Must be cast iron.
- No modifications allowed
- No center dump, LT1, or tubular exhaust manifolds allowed, regardless of year of car run.

### **Muffler**

- Mufflers optional
- All exhausts must exit from under the car past the driver.

### **Exhaust Pipes**

- Dual exhaust must exit past the driver's compartment.
- Exhaust pipe maximum 2 and quarter inches O.D.
- No H or crossover pipes.
- Exhaust gases must exit out rear of car.

## **RADIATOR**

- Aluminum radiators will be allowed.
- Any stock passenger radiator is allowed.



- Must fit stock location for car being run.
- WATER ONLY.
- Radiator over flow can – 1 gallon capacity- must remain under hood.

## **TRANSMISSION**

- Automatic transmissions only.
- Must have three working forward speeds.
- GM cars may substitute Turbo 350 or 400 Transmissions for OEM Metric Transmissions.
- No high stall torque converters.
- Torque converter must be matching to transmission.
- No small diameter converters, V-8 converters only specific to transmission used.
- No stall, mini, trick converters allowed.
- No shut down converters, V-8 converters only specific to transmission.
- Weight of converter must be stock.
- No shift kits.
- No modifications of any type.
- No Power Glide

## **REAR END**

- Stock make and model for car being run.
- No Positive Traction rear ends.
- No limited slip.
- No Detroit lockers.
- No shimming.
- No welding or locking of rear ends.
- OPEN REARENDS ONLY!!!
- Open gear rule
- If all else fails to level racing field, a rev limiter (MSD soft touch, RPM chip 5200) will be implemented.
- Must have drain pan for tech.

## **BRAKES**

- All four brakes must be functional at all times. Brakes will be tested.
- E-Brakes must be disconnected.
- No 4 wheel disc brakes.
- Stock brake pedal and stock type master cylinder.
- NO brake limiting valves.

## **SUSPENSION**

### **Springs**

- Any spring will be allowed.
- Spring must be same height within half inch side to side.
- NO spring rubbers allowed.
- No heating, cutting, altering of springs in any way.
- Springs must be identical from side to side. This includes both the spring O.D. and the spring wire diameter. This also includes the number of spring coils.
- Spring rate must be the same side to side.
- ALL spring buckets MUST be SOLID.
- A minimum ride height of six (6") inches and a maximum ride height of eight (8") as measured from the bottom of the frame rail to the ground must be maintained when measured at any point along the frame rails Ride height rule will be strictly enforced. There will be no allowances for any reason.
- No more than one inch variance will be permitted in ride height front to rear or side to side.
- Ride height is measured with driver in the seat.

### **Leaf Springs**

- Stock mounting location
- No shackles, no heating, bending, cutting, altering, etc.
- Must be same thickness and width side to side no multiple leafs

### **Torsion Bars**

- Must be stock for year make and model of car being run
- No truck torsion bars

### **Shock Absorbers**

- Stock appearing.
- Steel welded body.
- Stock Mounting
- No ADJUSTABLE shocks.
- No revalvable shocks.
- No take apart shocks.
- Front shock rate: Matched pair left and right
- Rear shock rate: Matched pair left and right
- Part numbers must be legible.

- Part numbers tampered with, ground or rubbed off will require automatic disqualification.

## **Sway Bar**

### **Rear sway bar may be run if factory equipped.**

- No hollow sway bars.
- No aftermarket sway bars.
- Sway bars must bolt in stock location with stock bushings.
- Rubber or polyurethane bushings allowed. No monoballs or solid bushings allowed.
- Must be centered, no offset allowed.
- Sway bars lengths may have a solid mount from top to bottom.
- No altering of stock sway bar.
- Maximum diameter of sway bar is 1 ¼' inches.

## **A-Frames**

- Must be stock for make and model of car being run.
- No altering in any way.
- Spring buckets must be solid non adjustable and must be within 1/2 inch side to side including spring bucket and shims
- Rubber or polyurethane bushings allowed.
- Holes in frame must not be altered in any way.
- All ball joints must remain stock size and location for the car run.
- No drilling, reinforcing, no modifications allowed.

## **Rear Trailing Arms**

- Must remain stock, reinforcing allowed.
- Rubber or polyurethane bushings only.

## **Spindles**

- Must remain stock for the year and make of the car.
- Camber must not exceed 7.0 degrees negative. Camber will be checked after the race with ~~NO~~ allowance for any damage (increased camber) incurred during the race.
- Camber rule penalties will be enforced as follows.
- 7.1 – 7.5 degrees will be set back three finishing positions.
- 7.6 or more degrees will be disqualified.

## **TIRES AND WHEELS**

- Hoosier 850 tires required. Must be purchased from the track. 2022 Tire Bank rules apply to all competing cars.
- No shaving of tires, NO soaking of tires. Tires will be confiscated, car will be DQ
- Rims: Reinforced rims may be run. NO aluminum or magnesium rims allowed.
- No wheel spacers allowed.
- Rims 7" wide or racing 7" wide wheels will be legal.
- All four (4) wheels must have the same offset.

## **BATTERY**

- Any battery allowed, MUST be in an approved Battery Box.
- Batteries in driver's compartment shall be secured and shielded to prevent leakage in the event of a turnover.
- Battery shall have a Marine style box cover secured to the metal box as to not allow movement of the battery.
- MUST be a standard full sized automotive battery.
- ONLY 1 12 volt battery per car.
- Gel battery recommended.
- Battery can be moved to the inside of the car behind the driver in an approved Battery Box.
- NO battery in the trunk.

## **WINDSHIELD**

- Windshields must be replaced with 1/8" LEXAN or wire mesh only. EXCEPTIONS: SIDE REAR WINDOW MAY BE CLOSED WITH LEXAN OR STEEL.
- One rearview mirror mounted inside car in the center of windshield.
- One (1) spot mirror allowed on the left side.

## **ROLL CAGE**

MUST consist of the following, NO EXCEPTIONS!!

1 3/4" x .095 thickness (minimum), seamless or electric welded seam approved roll over bars. The main hoop must be installed over the driver's head against the roof, out to the doors and down to the frame.

A support bar must be installed horizontal below shoulder level to connect hoop bars. Four (4) door bars must be installed on the driver's side and three (3) door bars on passenger side. Door bars may not extend through the front firewall. Additional bars may be added for safety, but must not be attached to floorboards, frame or sub-frame. Four point frame attachment only.

Roll bar padding must be used on all bars within the driver's reach. Weld in sub frame connectors will be allowed. No car with less than the minimum roll bar standards will be allowed to compete. All mandatory roll cage tubing must be placed as shown in the diagram. If you have any questions call the TECH INSPECTOR.

Two additional bars may be located on the upper portion of the main roll bar hoop that can run downward through the rear firewall (resulting holes must be well sealed) and connect to the frame at a point no further back then the spring buckets. Plating of the top portion of the spring buckets will be permitted. The bottom (spring side) of the bucket must remain ABSOLUTLY stock. Relocation or modification of the spring bucket or the shock mounts will not be permitted. Bars may not be connected to the frame any other points. Bars may not be X'ed.

Two bars (1 3/4" x .095) connected to main cage front down bars through the firewall connected to the frame rails behind the upper control arms will be permitted but are not required.

Two additional bars (1 3/4 " x .095) will be permitted to extend from the main cage to the frame rails in front of the control arms. NO FULL HOOPS.

**Minimum clearance of three inches between top of the roll cage and the top of the driver's helmet mandatory**

Damaged front frames sections ahead of steering box and idler arm may be repaired with 2" by 3" tubing.

Damaged rear frame sections behind rear axle and suspension, may be replaced with 2" by 3" tubing.

SECTIONS REPLACED MUST BE IN THE SAME STOCK LOCATION.

**COOLANT**

Antifreeze or additives of any type are NOT permitted to be added to the cooling systems of any competing division at the Wall Stadium Speedway. Tap water or distilled water only. Any competitor found to be using any coolant additive will be disqualified for the entire race meet.

## **IMPOUNDMENT**

TRACK RESERVES THE RIGHT TO IMPOUND THE CAR. ALL VEHICLES MUST REMAIN STOCK FOR THAT YEAR, MAKE AND MODEL. NO ALTERATIONS OF ANY KIND UNLESS SPECIFIED IN THE RULES. NO EXCEPTIONS, NO EXCUSES!!

If you have to ask yourself "I wonder if this is legal" it probably isn't. Any competitor trying to take advantage of any "grey area" they may think they see in the rules will more than likely find themselves on the wrong side of the tech officials.

No vehicle will be permitted in any competition until it is 100% in compliance with these rules.

Should the quality of racing deteriorate the rules may be amended, or the individual cars will have weight adjustments to improve the quality of racing.

The age for participation is 17 with a valid Driver's License. 16 year olds may compete if special permission has been granted by the NJ State Police through Wall Stadium Speedway management. Send your racing resume and request to [wallstadiumspeedway@gmail.com](mailto:wallstadiumspeedway@gmail.com).

\*This process may take up to 6 weeks.\*

**- END -**