



# 2023 POWRi Super Stock Specifications

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General Rules of Conduct, Track Technical Inspections, Transponders & RACEceivers, it is the responsibility of each POWRi Super Stock competitor to read, understand and abide by the host Speedway General Track Rules. POWRi Super Stock drivers are to represent the POWRi Racing League in a professional and courteous manner at all times. Any unsportsmanlike conduct by a participant shall be grounds for disqualification and/or punitive action. All sanctioned tracks share information regarding unsportsmanlike behaviors and disqualifications.

**Appearance:**

All racecars must be numbered with large legible numbers on both sides, on top and on the nose and rear panels. Numbers on the sides of the race car should be in contrasting color from the body and be at least four (4) inches thick and at least eighteen (18) inches high. Top numbers should be at least four (4) inches thick and twenty-four (24) inches high. No profanity allowed on cars or trucks. Crate engines indicate crate on the right front window post in 2" legible letters.

**Ballast:**

No unsprang weight allowed anywhere on the car. No titanium, magnesium, carbon fiber or tungsten products. Weight may not be mounted in cockpit, or outside of body or hood area. Must be securely mounted, "MUST BE" painted white and clearly marked with the car number. Must be attached with at least two (2) .500 (1/2) inch bolts. May not be attached to rear bumper. Any car with ballast that is not painted white, have car number, and securely mounted will be subject to disqualification.

**Battery/Starter:**

One 12-volt battery only. No lithium batteries. Must be securely mounted between and above top of frame rails, and positive terminal must be covered. Battery must be in Marine type case if mounted in driver compartment. Starter must bolt in OEM location. Car must have capability of starting without being pushed or pulled. Car is expected to leave initial staging area on demand and unaided.

**Brakes:**

Must be operating on all four wheels and must lock up all four wheels during inspection. Must have caliper and rotor on all four wheels. Must be stock / cast / steel type calipers with stock piston diameter. No aluminum calipers. No electronic brake actuators of any kind are allowed. Must be OEM operative four-wheel drum or disc brake combination. Stock rotors only. Scalloped rotors are not allowed. Rotors may not be lightened. Floating brakes are not allowed. Brake lines must be outside frame rails and visible. Brake shut-off and/or pressure sensitive devices are not allowed. One brake bias bar (front to rear only) is permitted. Must maintain minimum OEM dimension for hubs, rotors, and calipers.

**Car Body:**

Any model rear wheel drive American made production car. All cars and bodies must be stock appearing. Bodies must be squared up on the frame (front to rear and side to side). (May use older nostalgic body on 1967 or newer frame.) No flat late model or modified style roofs. Roof must be OEM style, may be fiberglass or aluminum. A & B pillars must be OEM style. Fenders, doors, and lower rear quarter panels may be aluminum but must maintain original body line contour and remain Stock appearing. No slab side bodies. Must have minimum 14" window openings on both sides of car. Cars may use aftermarket nosepiece and tailpiece but must remain stock appearing for car make and model. No wedge noses. Plastic front nose sides allowed, must not extend past center of front wheel well. Flare may not protrude more than 2-inches outward or above the standard contour of OEM Fender. Rear of car must be enclosed from

frame rail to frame rail and deck to bumper with panel. Panel must be solid with no holes or louvers and a minimum of 40 inches wide. Panel must be mounted vertically with no slope or angle. Taillight area may be left open. Minimum 1 1/4-inch diameter tube front bumper will be allowed with aftermarket nose but must remain behind nose piece and attach at original position. No mirrors or reflecting device of any kind. All glass, chrome, trim, moldings, etc. must be removed. Windshield must be removed and replaced with a gravel screen or minimum of three (3) windshield bars in front of driver. Gutting of inside panels and front inner fenders will be allowed. All doors must be bolted or welded shut. Trunk lid must be secured. Maximum 6-inch-high spoiler allowed no wider than the body. Spoiler may be braced on both ends and have one center brace no more than 6-inches high and 12- inches long. The maximum height from the ground to the top of the rear deck at the top of the rear quarter panel is forty-two inches. Spoiler must be mounted under the decking not on top.

### **Carburetor:**

Maximum one-inch spacer plate is permitted under carburetor. Distance between bottom of carburetor and top of intake manifold cannot exceed one and one-quarter (1.25) inch. Spacer thickness must remain the same front to back and side to side. No aerosol type carburetors allowed. No remotely adjustable spacer/adaptor plate between carburetor and intake manifold. Cars utilizing engine option #1 Standard Engine must use Holley 4412 gauge legal 500 cfm 2-barrel carburetor (1 11/16" throttle bore max. 1 3/8" venturi max). Carb "must" pass all top and bottom "go/no go" gauges (boosters included). All air must pass through carburetor venturi to engine. Engine option #2 Sealed crate engines and may use 4-barrel as stated in rules. Holley Cast Number L6R3250B Not Permitted in any POWRi Competition. No spacer allowed between main body and throttle plate.

### **Cooling System:**

Aluminum water pumps are permitted. Cooling system may be modified. Sprinkler systems are not allowed. One (1) Radiator and transmission cooler is allowed and must be mounted under the hood and in front of engine- aluminum allowed. Overflow tubes must be directed to the ground, between frame rails. Accumulators and Accusumps must be mounted in the middle of the racecar or behind the driver, but not on door bars. Top flow air cleaner housings are permitted. Cold air boxes and/or air cleaner ductwork is not allowed. Marine-type engine components are not allowed.

### **Decals And Contingency Awards:**

Drivers must properly display approved POWRi Super Stock sponsor decals in approved locations on the racecar to participate in any prize money, point's funds and/or contingency awards which require specific decals and/or decal placement for eligibility. All decals shall be distributed by POWRi, along with a description of each sponsor's program, decal placement requirements and contact information. Sponsorship decals for each participating track while competing for individual track related prize money, point's funds and/or contingency awards which require specific decals and/or decal placement for eligibility. All decals must be positioned on both sides of the racecar at the front of the door below the window opening.

### **Driver Compartment:**

Windshield must be removed and replaced with a gravel screen or minimum of three (3) windshield bars in front of driver. Gutting of inside panels and front inner fenders will be allowed. No dropped or tunneled interiors. Must be flat and equal height from top of passenger side to driver side door. Interior on right side of car may be enclosed but must have 12-inch x 12-inch trap door for inspection. SFI rated

racing seat only, must be bolted in using a minimum of (4) 0.4375 (3/8") inch bolts. Seat must remain inside all confines of roll cage. Driver must be sealed off from track, driveline, engine, and fuel cell. Kick and rocker panels may be removed. Front OEM firewall may be replaced using steel fabricated full firewall, 18 gauge or minimum 0.049-inch thickness. Firewall may be flat or straight and may be moved back to the first factory seam in the frame (where C channel is welded to front stub) or twelve (12) inches from back of motor. OEM floor pan may be replaced using steel fabricated floor pan, 18 gauge or minimum 0.049-inch thickness, securely welded to frame. Floor pan may be replaced from front firewall to rear halo supports. Must remain flat/OEM appearing from frame rail to frame rail, can be no higher or lower than frame rail. Exception is maximum eight-inch-tall driveshaft tunnel. Tunnel must remain similar to OEM tunnel in size. Full rear firewall may be aluminum or steel and may be located no further forward than rear halo supports and no higher than bottom of rear opera windows. All holes in firewalls must be covered with metal. All doors must be bolted or welded shut. No driver-adjustable devices allowed while car is in competition except brake adjuster. No mirrors. See the CAR BODY section for any additional rules that may apply to this section 1.

**Driver Compartment:** section for any additional rules that may apply to this section.

POWRi Super Stock Body Diagram Measurements:

A - 8" Max Hood drop from Cowl to front of Fender.

B - 50" Max Center of Front Hub to Nose.

C - 70" Max width outside of Door tops measured at Driver's seat.

D - 70" Max Spoiler width.

E - 36" Minimum 48" Max center Rear Hub to rear Bumper.

F - 5" Max Fender or Hood bubble.

G - 80" Max overall Body width.

H - 1" Minimum outward Body curvature. (No flat sides, no dished sides).

I - 42" Max Deck at rear.

J - 48" Max top of Spoiler.

K - 7" Max Spoiler side height.

L - 12" Max Spoiler side length.

M - 40" Minimum width rear panel (no holes or louvers)

**Driveshaft:** Minimum 2-inch diameter steel drive shaft. Must be painted white and made of steel. A safety loop is required at front half of driveshaft. Alternatively, 2 loops of 1/4-inch by 1-inch solid steel fastened to cross member are allowed. Yokes must be made of steel. No aluminum or carbon fiber driveshaft's allowed.

**Engines:**

GM frame must run GM engine, Ford on Ford, etc. Tip of number one spark plug must be even or in front of installed left upper ball joint. Oil pump must be in stock location and OEM.

### **Engine Option 1:**

STANDARD ENGINE - Steel blocks only. Must be able to be used in a conventional passenger car without alteration. 23-degree cast iron heads only. Aluminum intake allowed. Headers allowed. No Tri-Y headers. Tip of number one spark plug must be even or in front of installed upper ball joint. Oil pump must be in stock location and OEM. No dry sump systems. Exhaust system and /or mufflers must be mounted in such a way as to direct spent gasses away from the cockpit. If using an engine block that has been lightened, or with external machining of block or heads must add 25lbs in front of motor plate. (Rev Limit Rule may be added during the season or future if needed).

### **Engine Option 2:**

CRATE ENGINE - Crate Engine - GM Performance Parts (GPP) factory-sealed CT400 Chevy small block crate engine (Part No. 88958604 or 88869602. Must be unaltered and sealed from factory at appropriate points (Intake, head, timing chain cover and oil pan) with approved GPP break-off bolts. "Only" GM Performance Crate Motor Specs will be followed during technical inspections. Any altered, damaged, or missing GPP break-off bolts will result in driver being disqualified from that event, loss of all track and regional points accumulated up to, and including, the date of the offense, a \$1,000 fine and a one-year suspension from all events. May utilize one (1) Holley 4-barrel carburetor. Use of a spacer between carburetor and intake is optional but must be no more than 1-inch thick if used and may not be throttle bore adjustable. Aerosol carburetors are not permitted. Any driver running a "Standard" engine with a "Crate" sticker will be disqualified. Must utilize a maximum 6800 RPM rev limiter. (Rev Limit may be subject to changes if needed) Rev Limiter may not be within reach of the driver while in cockpit and must be easily accessible to Officials at any time.

### **Exhaust & Mufflers:**

Must be mounted in such a way as to direct spent gases away from cockpit of vehicle and away from area of possible fuel spillage. Use of mufflers is recommended. 'Zoomies' and/or 180-degree headers are not allowed. Exhaust pipes must extend to and connect with one (1) collector at least four (4) inches long. Must remain dual exhaust, no crossover or "Y" pipes. 2

### **Frame:**

Any American OEM full body rear wheel drive passenger car, 1964 or newer, full frame or unibody. Johnson Chassis X-Y-G tubular metric frame will not be allowed. Must be a minimum of 99-inch wheelbase. Frame must match body - GM to GM, Ford to Ford, Chrysler to Chrysler - AND wheelbase to wheelbase. No altered or twisted frames. Frame must be stock to center of rear end (Must be stock width, thickness, and location to center of rear end. Straight rear axles only. No independent rear suspension. Frame must match the body make (i.e., metric frame, metric body). Must be stock in all aspects and remain unaltered. Spring must remain in stock location and spring may not protrude above original stock mounting position. Race car must be same generation frame and body. Uni-body cars must tie rear frame to front frame.

### **Fuel Cell:**

Must be SFI Rated, commercially manufactured. Boat and/or stock automotive fuel tanks are not allowed. Must be securely fastened inside trunk of race car and mounted by at least 2 1/8-inch solid steel straps which are 2-inches wide around the fuel cell and above the level of stock trunk floor. Must be in a steel

container. Must have firewall between driver and fuel cell (see DRIVER COMPARTMENT section). All mounts must be made of steel and attached to frame or roll cage. Must have check valves. A ball- type, flapper, spring, or filler rollover valve is mandatory for fuel cells without a positive seal filler neck/cap system. Fuel lines passing through the cockpit must be enclosed in metal pipe or metal conduit. Fuel filters are not allowed in cockpit.

### **Fuel System:**

Automotive gasoline, racing gasoline or E85 is permitted (no E98). No Methanol fuel allowed. No performance enhancing or scented additives. Fuel must pass both dielectric meter and chemical tests. Oxygenated fuel is not allowed. Upper cylinder lubricants are not allowed. Mechanical OEM type fuel pumps only. Fuel shut-off recommended. Electric fuel pumps are not allowed.

### **Gauges/Electronics:**

No cell phones, unapproved cameras, transmitting or listening devices (exception is one-way Race Receiver radio by officials), timing retard controls, or digital dash boards. No electronic monitoring computer devices capable of storing or transmitting information except memory recall analog tach. Aftermarket or OEM Distributors allowed. No adjustable timing control or magnetos allowed. One MSD 6AL PN#6425, or MSD 6CT PN#6427 box allowed. Aftermarket ignition module and coil allowed. Track may confiscate and exchange MSD box at any time. Magnetos and/or crank-triggered ignitions are not allowed. No more than one (1) coil may be used. Kill switch required within easy reach of the driver. The switch must be clearly marked “off” and “on”. Ignition box must be out of reach of driver. Digital gauges are not allowed. OEM type alternator with internal regulator allowed. No electronic traction control devices.

### **Rear End:**

Rear end may be locked. 8-inch or 9-inch Ford may be used on all car makes. Floater rear ends are allowed. No traction control devices. No ratchet rear ends or torque dividing differentials. No cambered rear ends allowed.

### **Rear Suspension:**

Suspension must remain in stock position on chassis. Stock length aftermarket trailing arms with stock style bushings required, No mono-balls. All trailing arms and bushings must be in working order. Trailing arm bracket must be in stock location on chassis and trailing arm mounting bolt and hole must be of same size and remain eccentric in motion. Farthest trailing arm bracket mount holes on rear end must be 3.5” or less from rear end tubes to center of bolts, must be mounted same on both sides. Rear weight jack bolts allowed; rigid adjustable buckets ok. (No swivels). No torque absorbing devices and no double shocks. Torque arms allowed only on cars that came out with them and must remain stock dimension and stock mounting. Maximum rear spring height is 16” and must be mounted directly on original type spring perch or weight jack. Up to 1” rear spring spacers allowed. Leaf Spring cars will be allowed to relocate front spring mounting location but must remain stock spring length, stock total wheelbase and no more than 1” difference in left to right wheelbase. Leaf spring cars may use adjustable rear shackles or sliders.

### **Roll Cage:**

Main cage must consist of continuous hoops, minimum 1.50-inch O.D. tubing, with a minimum wall thickness of 0.095-inch, low carbon or mild steel recommended. Four-post roll cage required, front down bars and rear hoop must be welded to OEM frame. Front down bars must be tied together. Driver's head must not protrude outside cage with helmet on. Roll cage must be cross braced. Installation and workmanship must be acceptable to officials. Roll bar connections must be properly welded and gusseted. It is recommended that roll bars within the driver's reach be padded. Fire retardant padding material is highly recommended. A minimum of one cross bar in top halo of roll cage is required. Minimum of three bars in driver's door. Steel door plate with eighteen (18) gauge or forty-nine one-thousandths (.049) inch minimum thickness metal must be securely welded to the driver side door bars. Plate must extend from the top door bar to the bottom door bar and must extend from the back of the seat to 6-inches in front of the seat. Must be visible for inspection. Front and rear hoops are allowed. May have two bars for protection in front of radiator. Those two bars must be located behind the front bumper and within the confines of the body and may be no wider than stock frame horns. Front horns may be tied together. Aluminum and/or other soft metals are not allowed.

### **Shocks:**

One steel non-adjustable unaltered shock per wheel. No bump stops (internal or external). No air, remote reservoir, bulb type, or Schrader valve shocks allowed. All shocks must move in both directions at least 1 inch from its installed position and measured at ride height. Shock cannot preload the spring. Front shocks must be mounted on rigid, non-adjustable mounts with one shock mounting hole. All shocks must completely collapse into shock body at any time. Front stock mount shocks: Stock mount shocks may be spaced or relocated from OEM location a maximum of 1" top or bottom, or total of 2" overall to prevent bottoming out of shock. Front outboard shocks: Outboard mounted front shocks must be mounted rigid. Non-adjustable welded mounts with 1 bolt hole per mount. Rear Shocks: Rear shocks may use adjusters or be on adjustable mounts.

### **Springs:**

One steel, non-progressive spring per wheel only. No helix springs. Maximum rear spring height is 16". Spring rubbers are allowed.

### **Steering:**

Steering box must be OEM or Sweet style and remain within original bolt pattern for type of frame used. May be modified to suit driver but must remain on left side of cockpit (no center steering). Removable steering wheel and steering quickener allowed. Plastic couplings are not allowed. OEM rack and pinion steering allowed if car was originally equipped. No aftermarket rack and pinion units. Steering components must be steel and stock in length and dimension. Heim joints and swedge tubes are allowed as replacements for outer tie rod ends. Inner tie rod ends must be OEM style with OEM style cast center links only.

### **Station Wagon Body:**

Full size wagons only. Floor pan complete to rear yoke. No spoiler allowed. Interior deck max 40". B-post side panels must be open and resemble OEM windows stock dimension & appearance. Roof must

stop 6" short of rear deck. 108" wheelbase minimum. No dishing or ramping of interior deck. All other Super Stock Rules apply.

**Suspension:**

GM must run GM suspensions, Ford on Ford, etc.

Front Suspension: Upper control arm may be replaced with tubular, non-adjustable, all steel control arm. Upper control arm cross shaft may be aluminum. No other aluminum allowed. Upper control arm mounts may be relocated. Maximum allowed 6-inch opening in frame for shock clearance. Front lower control arms must be un-altered, OEM or OEM style non tubular, non-adjustable, or approved aftermarket direct replacement for frame being used on stock mounts and in stock location. One piece steel, rubber, polyurethane, or nylon control arm bushings only. Inner steel sleeve in bushing must be present. Offset or bearing type bushings not allowed. Mono-ball or heim style bushings not allowed. Ball Joints may have different length studs but must be of OEM or OEM style replacement and non-adjustable or offset. Bolt in, screw in, press in ok. May be welded for safety but must not be relocated. Ball Joint must remain in OEM location of lower control arm. OEM spindles allowed. Speedway 3-piece spindle allowed with OEM style arm. No other aftermarket spindles allowed. Weight jacks allowed in original centerline of spring tower. If running sway bar must run OEM sway bar in OEM location. No suspension stops of any kind. No suspension travel limiting devices (chains, straps, etc.).

**Tires:**

Must Use either Hoosier 10-inch asphalt take offs (10.0 / 27.0-15) or the new Hoosier #36108 10.0/27.0-15 H500 dirt replacement for the asphalt tires. Tire must match wheel width. Tires must durometer minimum 50 hardness cold and 47 hot or disqualified. Softening is not allowed. No solvents of any kind are allowed. Altering tires with any components or chemicals, which alter the manufacturer's baseline-settings of the tire, is not allowed. Grooving and/or siping is permitted. All sidewall markings must always remain visible. Buffing or removing of the compound designations is not allowed.

**Tire Testing Procedures:**

All tires must "Cold" durometer a minimum of 50 prior to race during inspection, no tolerance allowed. All tires must "Hot" durometer a minimum of 47 after race during inspection, no tolerance allowed. Any tire out of tolerance will result in a disqualification for that race.

**Transmission & Clutch:**

Approved aftermarket transmissions are Bert, Brinn, Falcon, RaceGator, and Mitchell Machine Bullet Tranny with internal or external clutch allowed with both engine options. If using aftermarket transmission must add 25lbs in transmission area on frame, between frame rails, behind engine plate and in front of tail of transmission tail shaft. This weight must be painted orange with car # to signify aftermarket transmission. NO BALL SPLINE TYPE ALLOWED. OEM three-speed, four-speed and automatic production-types are permitted without 25 lb. weight addition. Automatic transmissions must remain in OEM stock appearing automatic case with a functioning stock appearing pump. "In and out" boxes are not allowed. Must all be clutch-operated or an OEM automatic with a coupler. May use a hand or clutch pedal operated ball valve for neutral. Clutch must be inside of bell housing for OEM production-type transmissions. Internal clutches are not allowed except for approved aftermarket transmissions. One (1) forward gear and one (1) reverse gear must be in working order, plus a neutral position, and must be able to be shifted by driver. Aluminum flywheel is permitted. Must have full-sized SFI approved explosion proof, aluminum, or steel bell housing. Aluminum must be SFI approved (Note: GM bell



housing is not SFI approved). Flywheel must bolt to crankshaft. Clutch must bolt to flywheel and clutch must be workable. Mini clutch is allowed. Automatic and aftermarket transmissions must have a guard two-hundred seventy (270) degrees around flex plate or flywheel and must be constructed of at least one-quarter (0.25) inch steel. Alternatively, automatic and/or aftermarket transmissions may utilize an SFI-certified aftermarket guard. Flex plates must be SFI certified. With engine running and racecar in stationary position, driver must be able to engage racecar in gear and then move forward and then backward at time of inspection.

**Weight:**

The minimum overall weight for Engine Option 1 (standard engine) will be three thousand (3,000) pounds. The minimum overall weight for Engine Option 1 (standard engine) with Outboard Mounted Front Shocks will be three-thousand one hundred (3,100) pounds. The minimum overall weight for Engine Option 2 (crate engine) will be two thousand eight hundred (2,800) pounds. The minimum overall weight for Engine Option 2 (crate engine) with Outboard Mounted Front Shocks will be two thousand nine hundred (2,900) pounds. Refer to transmission section of rules for directions on weight placement and markings if equipped with aftermarket transmissions. These weights apply to all vehicles racing in the POWRi Super Stock division. The overall weight of the racecar shall be measured at the conclusion of an event with the driver in the cockpit, wearing complete racing apparel.

**Wheels:**

Must be fifteen (15) inches in diameter and 10 (ten) inches in width. Must use a certified racing wheel. A steel bead lock may be used on the right rear wheel. Mud plugs and wheel covers are allowed on any wheel. Wheel covers must be securely fastened. Must have steel 1" lug nuts & 5/8" studs on all 4 wheels. Spacer or adaptor may not exceed 2-inches total per wheel. Three tabs of no more than 2-inches long each may be welded onto the wheel for mounting of mud cap. Bleeder valves are not allowed. No Wide-5's.

**Wheelbase:**

Wheelbase must remain stock according to year model and no more than 1" difference from side to side. No cars with OEM wheelbase less than 99" allowed. Wheelbase is measured from center of front hub to center of rear hub on each side with wheels as straight as possible. Either the left or the right-side wheelbase must be at least stock wheelbase for make and model of car (when measuring, one side must meet wheelbase and other side must be within one inch plus / minus).

# SUPER STOCK BODY DIMENSIONS

