



POWRi Ozark 360 Sprint Specifications

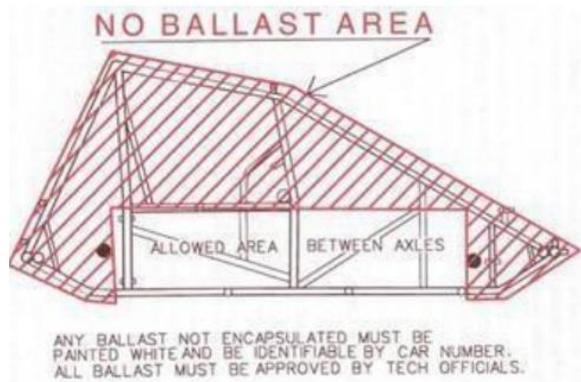
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1. Aluminum Engine Block Rules

- a. List of Chevy aluminum engine blocks approved for Competition are as follows:
- b. BRODIX® casting designation - letter A (std. cam location, std. bellhousing, std. pan rail), or I (raised cam location, std. bellhousing, std. pan rail) only.
- c. POWRi approved Aluminum block part #'s as follows:
- d. Part # Bore/Main Cam
 - i. 8B 1000A 400/400 standard
 - ii. 8B 1050A 400/350 standard
 - iii. 8B 1100A 350/400 standard
 - iv. 8B 1150A 350/350 standard
 - v. 8B 1000I 400/400 raised.
 - vi. 8B 1050I 400/350 raised.
 - vii. 8B 1100I 350/400 raised.
 - viii. 8B 1150I 350/350 raised.
 1. Cam and lifter size must be specified while ordering*
- e. The SPEC logo on block is NOT to be modified and must remain 100% legible.
- f. Absolutely NO lightening of any kind allowed.
- g. Standard or raised cam allowed.
- h. Oversized cams allowed.
- i. Roller cam bearings allowed.
- j. Minimum allowed deck height is 8.970.”
- k. Maximum allowed deck height is 9.020.”
- l. Oversized and keyed lifters allowed.
- m. Must be standard or GS-1 lifter location only. No exceptions
- n. Must be standard oil pan rail.
- o. Full bellhousing must remain.

2. Ballast Areas Allowed



3. Cast Iron Black Engine Rules

- a. 360 Cubic Inches; plus 1% maximum displacement (360 plus 1% = 363.6).
- b. No aluminum blocks. No Titanium in engines, excluding valves and valve retainers.
- c. Injectors: 2 3/16 inch maximum inside diameter of injector stack - 2.187 at least 3 inches in length. Note: Larger injectors may be used but sleeves a minimum of 3 inches in length must be installed in stacks above the Butterflies. No relief hole may be drilled above the Butterfly on any injector. No Alteration of injector manifold mounting holes will be allowed.

- d. Due to the manufacturing process some injector stacks may be slightly larger. There will be a tolerance of .005 allowed on no more than 3 stacks. No throttle body or plenum type injectors allowed, No down nozzle injectors.
- e. No timed fuel injectors will be allowed. Electronic fuel injection shall not be allowed. Only one injector nozzle and one injector line per cylinder.
- f. The injection unit shall have one shaft operated butterfly per cylinder. The immediate area of the butterfly must be round. No slide or barrel type injectors will be allowed.

4. Chassis Specifications

- a. Weight Rule: Weight rule is 1475 lbs., including the driver, at the conclusion of the race. Any bolt-on weight must be painted white, and the car number must be on the weight. Loss of any bolt-on weight during competition will disqualify the individual from that event. Bolt-on weight can only be added in the areas designated in the accompanying diagram. The weight must be securely attached and must remain in place during a race. It must not be moved or removed during a red flag situation.
- b. Chassis passes any test prescribed by the safety inspectors. The roll cage must be of a four-post design. No dirt champ cars. No elliptical (oval shaped) tubing used on or as part of the main frame structure. Minimum wheelbase of 83 inches, maximum wheelbase of 90 inches. No pieces may be added to the frame so as to resemble, imitate or be specifically designed to deflect, trap or form a wind break of any nature, except those used to cool/protect the motor and braking system. No roadster type chassis allowed, only sprint appearing type bodies, tails and hood will be allowed.
- c. All chassis will be required to have additional bars installed to support and decrease the span between the front and rear uprights in the driver's area. The new support bars must be in addition to the front and rear uprights. Any attempts to manipulate the front and rear uprights to conform to these measurements will not be allowed at the discretion of POWRi Officials. These additional bars will be minimum 1.375 X .083 ASTM4130 normalized steel or equivalent material.
- d. Left and right-side support bars may be one of the three designs below. Left and right-side support bars do not have to be of the same design. Left and right-side support bars may be one of the three options.
- e. Slip-tubing is not allowed in the chassis construction. Any existing slip-tubing must be replaced or welded. Clamped or bolted slip tube joints will no longer be allowed.
- f. Titanium front axles nerf bars and/or rear bumpers will not be permitted. Nerf bars and rear bumpers must be made from magnetic steel and/or stainless steel. Left and Right Nerf bars must attach to the chassis at three points. The bumpers must be a minimum of one (1) inch in diameter and have a minimum material thickness of .065 inches. The nerf bars must not extend past the outside edge of the tires.
- g. No aluminum frames or drag links. Tie Rods and Left Front Radius Rods may be aluminum, but highly recommended they be 4130 steel with magnetic steel rod ends. Swaging of the tubing will not be permitted. The drag links must be tethered to the frame with a minimum of one (1) inch nylon webbing.
- h. Carbon Fiber connecting rods having to do with suspension or steering are not permitted.
- i. All drive lines must be broken in the coupler or rear slider, fully enclosed and containing no more than one U-joint or C-V joint. No torque arm drive lines allowed. A safety strap or hoop that is securely attached to the chassis is required. Driveline components may not be Carbon Fiber.
- j. Mufflers: Mandatory, (unless otherwise stated). Schoenfeld part #14272735-78.

- k. Headers: Must be a minimum of .045
- l. Steel, Aluminum or Titanium brake rotors only.
- m. The maximum distance from the leading edge of the front bumper to the leading edge of the front torsion tube is a maximum of 8". The maximum distance from the leading edge of the front bumper to the leading edge of the front axle is 23 1/2 inches.
- n. No hollow, tubular or drilled out bolts allowed.
- o. The right-side opening must be a minimum of 10 inches vertical at any point and 21 inches horizontal.
- p. The right-side panel (armguard) will be permitted to extend a maximum of 7 inches as measured from the outside edge of the middle frame rail and must remain above the middle frame rail.

5. Cylinder Heads

- a. List of Cylinder Heads approved for POWRi competition is as follows:
 - i. Chevy - #27-211
 - ii. Ford- #27-223
 - iii. Mopar- #27-222
- b. Spec Heads: Brodix Chevrolet Style Heads part # 27-211 with ASCS stamp. During polishing, the edges of the letters on the ASCS logos are sometimes inadvertently brushed with the polish wheel. This is permissible as long as letters are still intact. Angle milling is allowed as long as the head remains within 1 degree of the original manufacturer's specifications. Excessive porting and/or angle milling of the ASCS logo Cylinder Heads may affect their structural integrity and is in no way recommended by Brodix.
- c. Spec Heads: Brodix Ford Style Heads part # 27-223 with ASCS stamp. Intake opening must be 2.150 inches tall by 1.300 inches wide. During polishing, the edges of the letters on the ASCS logos are sometimes inadvertently brushed with the polish wheel. This is permissible as long as letters are still intact. Angle milling is allowed as long as the head remains within 1 degree of the original manufacturer's specifications. Excessive porting and/or angle milling of the ASCS logo Cylinder Heads may affect their structural integrity and is in no way recommended by Brodix.
- d. Spec Heads: Brodix Mopar Style Heads part # 27-222 with ASCS stamp. During polishing, the edges of the letters on the ASCS logos are sometimes inadvertently brushed with the polish wheel. This is permissible as long as letters are still intact. Angle milling is allowed as long as the head remains within 1 degree of the original manufacturer's specifications. Excessive porting and/or angle milling of the ASCS logo Cylinder Heads may affect their structural integrity and is in no way recommended by Brodix.
- e. Valve angle and placement may not be altered in any way on the ASCS spec., or any other head. No welding of any kind, internally or externally, is allowed. ASCS checking fixtures will be used by sanctioned POWRi tracks to check the above specifications and dimensions.

6. Fuel

- a. Methanol or Ethanol only, NO NITRO or additives allowed. Fuel subject to be checked anytime by POWRi officials. NOTE: Fuel samples may be taken for analysis and prize money may be withheld until results are known.
- b. Fuel Cell must be securely mounted with bladder mandatory. The tank used for Qualifying Heats must be remain for all events.

7. Porting and polishing:

- a. Intake port openings must match the following:
 - i. ASCS Chevy- FP #1206 or equivalent
 - ii. Ford- FP#1262 or equivalent
 - iii. Mopar- FP#1213 or equivalent
- b. Porting and polishing of intake ports is allowed with the following restrictions:
 - i. All ASCS logos must remain completely intact.
 - ii. Intake port openings must meet previous requirements and check fixtures currently utilized by sanctioned POWRi tracks.
 - iii. Valve spring pockets may not be welded or altered in any way with intent to relocate ports.
 - iv. Maximum allowable width of pushrod area as follows:
 1. ASCS Chevy- 2.630
 2. ASCS Ford- 1.300
 3. ASCS Mopar-2.450
 - a. Width of pushrod area will be measured on the outside of the intake ports, at the location of the original pushrod machining from the original manufacturer. This area will be measured with an ASCS approved gauge.
- c. Absolutely no exhaust port relocation, raising, enlargement, or reshaping of any kind.
 - i. Polishing is allowed as long as the original ASCS logo is not affected, or port shape is not altered substantially.
 - ii. Valve spring pockets may not be welded or altered in any way with intent to relocate parts.
 - iii. Exhaust port openings must meet previous requirements and checking fixtures currently utilized by sanctioned ASCS tracks.
- d. Polishing will be allowed in the combustion chamber area to avoid hot spot chaffing.

8. Spec Head

- a. All spec heads must remain within 1 degree of the original manufacturing [Chevy: 23-degree, Ford 20 degree, Mopar 18 degree]
- b. All oil pans must have an inspection plug, pans without plug will be subject to pan removal at any time.
- c. No Turban driven, Turbo or blower will be allowed.
- d. Only two valves and one spark plug per cylinder allowed. No big blocks.
- e. No computer operated or controlled parts, such as fuel injections, traction control, fuel systems, crank trigger switches in the cockpit, chassis adjusting systems, shocks, etc.
- f. No offset motors will be allowed, the engine must be directly in front of the driver. Driver must straddle driveline.
- g. Any car changing a motor after taking an official green flag will start at tail of its qualified group of "A" Main cars. If the car is qualified for the "B" Main, the car will drop to the tail of the lineup.

9. Support Bar Diagrams

- a. Support bar may be designed similar to what was known as a "safety bar". It must be attached to the top rail at a point 15" to 20" from the rear of the front upright. It must attach to the hip rail and have a gusset attached to the rear upright near a point opposite of the rear brace/shock mount bar. The curve must be between 4" and 7" measured from outside of the rear upright tube to the outside of the support bar. See Diagram 1

- b. Existing chassis with a left side support bar installed (formerly called safety bar) that do not meet the option one specification above, may add a gusset that attaches to the top rail 15" to 20" from the rear of the front upright and angle to the support bar. The existing support bar tubing must meet the minimum as described above (1.375 X .083 ASTM4130 normalized steel or equivalent material). See Diagram 2
- c. A support bar may be added to the top rail at a point 15" to 20" from the rear of the front upright and to the rear upright near a point of the rear brace / shock mount bar but no higher than 7" above the hip rail. This bar may have a slight curve near the rear upright to accommodate elbow room and ease of fitment. See diagram 3.

Diagram 1

#1 Support Bar

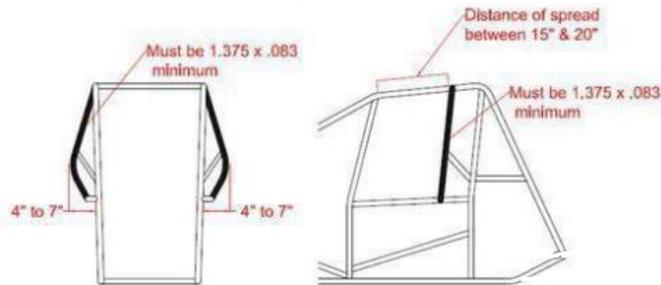


Diagram 16.12.1
By Tom Devitt

#2 Support Bar

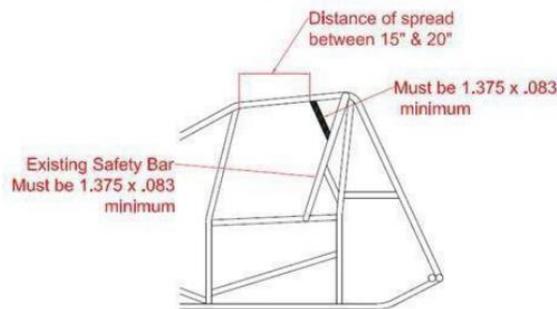
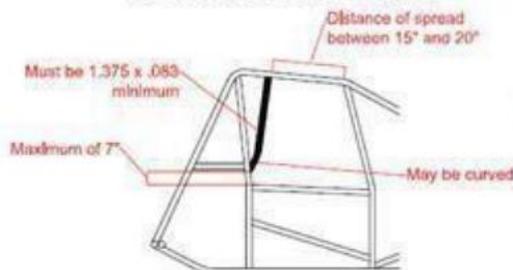
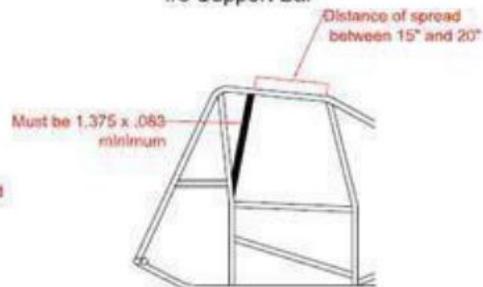


Diagram 3

#3 Support Bar Curved Option



#3 Support Bar



- a. Right Rear Hoosier Racing Tire, 105x16.0-15 Medium or 105/18.0-15 F85A. Tires may be Sipped and Grooved.
- b. Bead locks are recommended on all wheels.
- c. All wheel covers must have a minimum of 5 attachment points if using dzus fasteners. Said dzus fasteners must be made of steel only. Wheel Covers having only 3 attachment points must be bolted-on all three points utilizing a minimum 5/16", flanged steel bolt and an approved fastening (nut assembly) system. Approved fastening (nut assembly) systems:
 - i. Keyser Manufacturing, part #100 7-101
 - ii. Wehrs Manufacturing Part # (WM377A-312 Aluminum 5/16) (WM377S-312 Steel 5/16)
 - iii. Triple X Chassis Part # SC-WH-7810 (for a 1" spring) / SC-WH-7820 (for a 1 3/8" spring)
 - iv. Smith Precision Products Part # MC-516-18
 - v. Speedway Motors part # 910-07119
- d. Optional fastening systems that are equal or superior to the above approved system will be readily approved at the sole discretion of POWRi Technical Officials
- e. Maximum right wheel width is 18-inches, maximum left rear wheel width is 15 inches.
- f. Left Front is the only tire you can run flat.
- g. The Left Rear tire must be a Hoosier Tire
- h. No tire softeners, no conditioners, no altering of tires with any natural or un-natural chemicals, no hazardous or unhazardous components or chemicals which alter the factory set baseline settings of a given tire.
- i. All sidewall markings must be visible at all times. No buffing or removing of the compound designations.

11. Wing Specifications

- a. Top Wing:
 - i. Center Foil maximum size of 25 square feet with a maximum width of 60 inches with a one degree plus or minus tolerance.
 - ii. Center Foil shall be fully sheathed in aluminum. Vent holes are strictly prohibited.
 - iii. No wicker bills or Gurney lips permitted on Center Foil, unless center foil is totally flat then a two-inch wicker bill is allowed.
 - iv. Other than the slider mechanism, no moving parts allowed on or in foil structure.
 - v. The 12-inch section located at the rear of the Center Foil must not have the belly/curl arc out of proportion with the rest of the Center Foil. The belly/curl arc must span the entire length of the Center Foil and appear to be a gradual arc with the deepest point no further back than forty-eight inches from the leading edge. As measured on a 12-inch straight edge, the belly at 6 inches from the rear of the Foil may not be deeper than 1/2 inch. There is zero tolerance on this 1/2 inch depth. It is suggested that the wing blueprint specify 15/32-inch depth, so that if any deflection or movement of the wing occurs, the depth will not exceed the 1/2 inch specification. (This 1/2 inch measurement ensures that the belly/curl arc is gradual.)
 - vi. The belly/curl arc must start at the radius of the Center Foil's leading edge and shall not exceed a depth of 2 1/2 inches. Center Foil thickness cannot exceed 9 inches. Center Foil top surface from side to side must remain flat. Center Foil

must be a one-piece construction. No split or bi-wings will be permitted. Wings must be fabricated of metal alloys only. No fiberglass, carbon fiber or other similar material may be used in the basic framework of the wings. The top wing must not extend beyond the outside of rear tires.

- vii. Two stationary foils or rudders will be allowed to run the entire length of the underneath portion of the top wing. Maximum height proportions are 1 inch at the front and 3 inches at the rear. Nowhere shall the foil exceed 3 inches in height. The top wing can be cockpit/driver adjustable.
- viii. Wing T-Post will be built from 1" X .083" minimum ASTM4130 normalized steel or equivalent material. Wing attachment designs will be subject to approval. The only cast pieces approved will be HRP Part #HRP8811-A75-HD. If new T-Post designs are developed, they must be submitted for approval. Some approved T-Post designs are in the drawings section (See illustration below).

b. Front Wing:

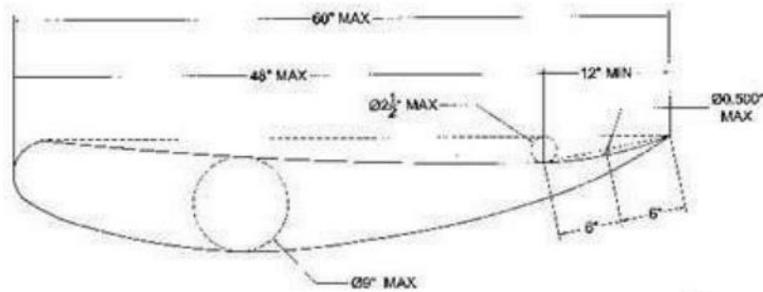
- i. Center Foil maximum size of 6 square feet with a maximum width of 36 inches with a one degree plus or minus tolerance.
- ii. Center Foil shall be fully sheathed in aluminum. No vent holes allowed.
- iii. Maximum 2" removable wicker bill allowed on any front wing. Wicker bill must be 90 degrees to the top of the Center Foil as measured from Top of wing nose to trailing edge.
- iv. The maximum distance from the Center Foil front edge to the front edge of the front axle may not exceed 20 inches.
- v. The Center Foil front edge must remain at least 1 inch behind the front edge of the front bumper. Center Foil top surface from side to side must remain flat.
- vi. Center Foil must be one piece. No split or bi-wings will be allowed.
- vii. Wings must be fabricated of metal alloys only. No fiberglass, carbon fiber or other similar material may be used in the basic framework of the wings.
- viii. The Front Wing must not extend beyond the outside of front tires. The Front Wing may not be cockpit or driver adjustable while the car is stationary or in motion.
- ix. No moving parts allowed on or in foil structure.
- x. The 5" section located at the rear of the front foil must not have a bell/curl arc that is out of proportion with the rest of the front foil. As measured on a 5-inch straight edge, the belly at 2 ½ inches from the rear of the foil may not be deeper than 3/8 inch. There is zero tolerance on this 3/8-inch depth. It is suggested that the wing blueprint specify 11/32-inch depth, so that if any deflection or movement of the wing occurs, the depth will not exceed the 3/8-inch specification (This 3/8-inch measurement ensures that the belly/curl arc is gradual).
- xi. The belly/curl arc must span the entire length of the front foil and appear to be a gradual arc with the deepest point, no further back than 12 inches from the leading edge. The belly/curl arc must start at the front foil's leading edge and shall not exceed a depth of 2 inches. Top foil thickness cannot exceed 3.6 inches.
- xii. No rudders or fins on Front Wings.

c. Sideboard Panels

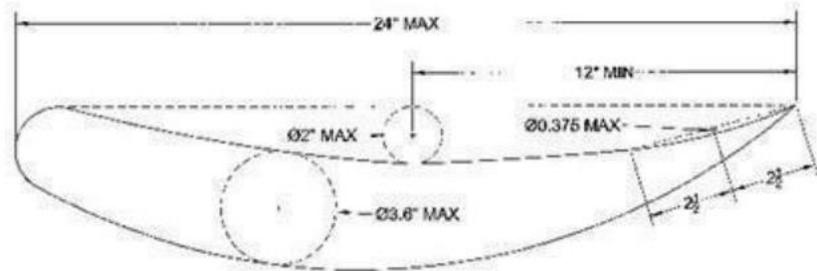
- i. All sideboard panels must be within an eight-degree plus or minus tolerance and be square to center foil.

- ii. Side panels may not be supported by braces whose section is not horizontal. All braces or supports shall be oriented thin edge to face the air stream. Only rectangular, round or oval metal braces not exceeding 1 inch in width may be used.
- iii. No aero section side panel brace material allowed.
- iv. No brace or support shall resemble a wicker bill or a split wing.
- v. Top Wing, sideboards maximum size, 72 inches long and 30 inches tall. Panels must be of one- piece construction. Panels must be fabricated flat so as to have no turnouts or flaps made of more than 2 inches of material on the front or rear of panel and no more than 1 1/4 inches on the top or bottom. Panels must be mounted parallel and square to the center foil with no more than 1 1/2" of turnout as measured from the Center Foil. Only two (2) corners on the 2/3 of each top wing sideboard will be permitted. Each corner shall be set at a 90° angle with no tolerance. The leading edge of the sideboard may not be behind the leading edge of the Center Foil.
- vi. Front Wing side boards maximum size, 12 inches tall and 26 inches long with no more than one inch overhang from the center foil front edge to the sideboard front edge. Sideboards may have front, back, top and bottom turnouts of no more than 1/2 inch.

Top Wing Diagram/Specifications



Nose Wing Diagram/Specification



Wing T-Post Diagram/Specifications

Wing T-Post

