



## **2023 Technical Rules**

Great Lakes Super Sprints  
is hereafter referred to as GLSS

Last Update: December 4, 2022

### **Disclaimer**

These rules are designed to provide for the orderly conduct of racing events and to establish minimum acceptable requirements for such events. These rules shall govern the condition of all events and shall be in force from the time the pit gate is open for pit bands, till payout is done at the GLSS hauler. By participating in these events, all participants are deemed to have complied with these rules. They 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.

- **Section 1 - Safety Procedures and Equipment**
- **Section 2 - General / Conduct**
- **Section 3 - General Racing Equipment, Driver Radios & Transponders**
- **Section 4 - Technical Rules**



## **Section 1- Safety Procedures and Equipment**

1. Any driver who exits their car and approaches another driver on a live racetrack may be subject to a fine of \$1,000 and/or be suspended for two calendar weeks from any GLSS sanctioned event. The offending driver will also forfeit their winnings for the night. This also includes family and crew members entering a live racetrack. Under caution, stay in your car. If you are in an unsafe situation, you may exit your car but stay with your car. Dark tracks and dark fire suits make you hard to see. Remember, actions done in anger can have dire consequences. A driver/team who willfully ignores/disobeys an GLSS official in a manner which delays the running of the night's program, or places others in danger, will also be subject to a fine of \$1,000 and/or be suspended for two calendar weeks from any GLSS sanctioned event.
2. Flame retardant driver suit, gloves, socks, underwear (unless 3 layer suit is utilized), and shoes are required. A head and neck support or restraint system is mandatory. Approved racing, full-face helmet is mandatory. Snell SA 2010 or Snell SA 2015 sticker mandatory.
3. All cars must be equipped with adequate seat belts, shoulder harness and crotch strap. GLSS strongly recommends a five point hookup with 3 inch belts. Full Containment Seat is highly recommended.
4. It is highly recommended, that the Steering Wheel is secured with a pull type, quick release hub or button style, quick disconnect. Use of removable pin style hubs is not recommended at all due to high risk of failure. It is the driver's responsibility to make sure the steering wheel is securely attached before entering the racing surface. Your safety is truly in your own hands.
5. An onboard fire suppression system is highly recommended on all cars with nozzles positioned as to coat the Engine, Driver, and Fuel Cell.
6. Approved front axle tether systems are highly recommended. The tether mounting must meet the SFI 55.1 specification which includes two (2) Vectran® HS V-12, or Dynemma 12 tethers attached to the chassis. Tether systems must include a "king pin to king pin" tether that will attach to the axle clamp/band. Tether cables should be installed using the manufacturer's provided fasteners. Tether systems of any type must be pre-approved and installed in accordance with the manufacturer's instructions.
7. If utilized, a tether is required on both left, and right sides of the Front Axle. Tethers must be mounted from the Front Axle, just outside the Radius Rod hookups on both sides of the Front Axle, utilizing the aluminum mounting brackets provided by the manufacturer. Tethers must extend to the second upright of the frame and be attached below the front engine mounts. Tether must be attached with a slipknot around the upright. Crews cannot alter the intentions of the Axle Tethers.
8. A five-pound fire extinguisher is mandatory in each pit.
9. If a car needs to be fired in the Pits, the person in the car must be in full safety gear with seat belts properly attached.



**Section 2 - General / Conduct**

1. Previous racing experience is required for drivers under 16 years of age. Drivers under 16 years of age must seek approval from GLSS prior to competing.
  - a. Drivers under 18 years of age must have a notarized parental consent form signed by parents or legal guardians.
  - b. No earning will be issued until required W-9 tax forms are completed and returned to GLSS.
  - c. Drivers are considered an independent contractor and as such are responsible for all charges and taxes on any funds received from GLSS.
  - d. All cars are subject to inspection at any time.
  - e. GLSS reserves the right to refuse entry to any car or driver.
2. No alcoholic beverages or marijuana will be consumed by drivers or their pit crew at any time prior to or during events. Use, sale or distribution of illegal drugs at any time shall be cause for immediate suspension. Participation by team member in either activity will result in disqualification with all points and earnings being forfeited to the year end points fund.
3. If a driver or crew member working in the pits or driving a push vehicle is suspected of being under the influence of alcohol or marijuana by a GLSS official, they must be checked out by on hand medical personnel and cleared by them before they can resume operation of any power unit on or off the track that night.
4. The driver is the sole spokesperson for the race team and is responsible for their actions. Any drivers or crewmembers fighting will result in disqualification for that team and all points and money for that evening will be forfeited.
5. Striking an official will result in disqualification for the evening, loss of membership, forfeiture of all points and monies for that evening, and up to a one-year suspension.
6. Verbal abuse or inappropriate behavior will not be tolerated. No warning will be given. If violated, the team may be disqualified with all points and/or money forfeited for that night. Other penalties may be applied depending on the specific situation.
7. Any car not obeying an official will be black flagged and scored last for the event. This includes, but is not limited to, not getting in the proper position in a timely manner, stopping on the racing surface to dispute a decision, and excessive speed during yellow flag conditions.



### **Section 3 - General Racing Equipment, Driver Radios & Scoring Transponders**

1. All competitors in series are required to have, in working condition, an approved one-way radio system to aid in line ups and/or the use of race control to manage the racing event.
2. All cars must have and/or provide the adequate hardware for the attachment of the Scoring Transponder.
  - a. All cars are required to be equipped with a scoring transponder securely mounted on the specified location. It is the competitor's responsibility to ensure proper installation and working condition of the scoring transponder.
  - b. If a car is found to have a non-functioning scoring transponder, they will be directed to the pits to have one installed. A penalty may be assessed at the discretion of series officials.
  - c. Transponders will be available for rent on a nightly basis.

### **Section 4- Technical Rules**

#### **1. Cast Iron Block Engine Rules**

- a. 360 Cubic Inches: plus 1% maximum displacement (360 plus 1% = 363.6).
- b. 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. 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.

#### **2. Aluminum Engine Block Rules**

- a. Anyone using an Aluminum block is required to add one 25 lb weight on each side of the frame. (roughly mounted at the center of the engine). \*See attached addendum.
- b. A List of Chevy aluminum engine blocks approved for GLSS Competition are as follows:
- c. BRODIX® casting designation - letter A (std. cam location, std. bellhousing, std. pan rail), or I (raised cam location, std. bellhousing, std. pan rail) only.
- d. GLSS approved Aluminum block part #'s as follows:



Part #	Bore/Main	Cam
8B 1000A	400/400	standard
8B 1050A	400/350	standard
8B 1100A	350/400	standard
8B 1150A	350/350	standard
8B 1000I	400/400	raised
8B 1050I	400/350	raised
8B 1100I	350/400	raised
8B 1150I	350/350	raised
<i>*Cam and lifter size must be specified while ordering*</i>		

- e. 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

### 3. Cylinder Heads

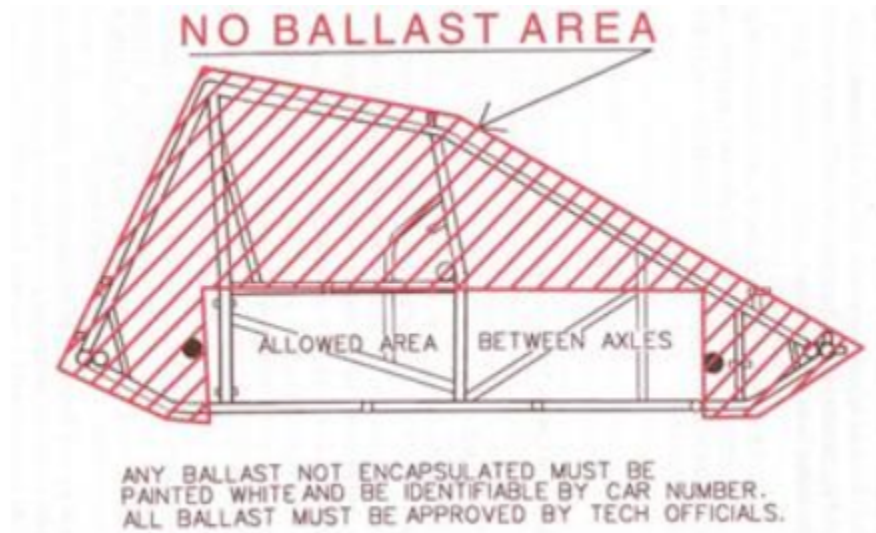
- a. Spec Heads Brodix heads, part #27-211 (Chevy), #27-223 (Ford), and #27-222 (Mopar)
- b. Chevy heads part #27-211 with ASCS logo. Intake opening no larger than original opening, the only exception being, inlet opening may be ground or polished  $\frac{3}{4}$  inches or no further into port than the closest edge of the closest letter of the ASCS logo. During this polishing the left side of the letter "A" is sometimes inadvertently brushed with polish wheel. This is permissible if letter is still intact. During polishing of inlet port sometimes polish marks may go slightly further than the  $\frac{3}{4}$  inch. Please note that the intake port is for the Fel-Pro #1206, or equivalent, gasket. Angle milling is allowed as long as the head remains within 1 degree of original manufacturer's specifications.



Excessive porting and/or angle milling of the ASCS logo Cylinder Heads may affect their structural integrity, and is no way recommended by Brodix.

- c. Ford heads part #27-223 with ASCS logo. Intake opening must be 2.150 inches tall by 1.300 inches wide. Intake port polishing will be allowed. Polishing will be allowed in the combustion chamber area to avoid hot spot chafing. Polishing will be allowed in the exhaust ports as long as the original ASCS logo is not affected or port shape is not altered substantially. Please note that the intake port is for a Fel-Pro #1262, or equivalent, gasket. Angle milling is allowed as long as the head remains within 1 degree of 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. Absolutely no intake or exhaust port relocation, raising, enlargement or reshaping of any type and intake to head angle must remain within 1 degree of stock. Valve angle and placement may not be altered in any way on the ASCS spec head or on any other head.
- d. ASCS checking fixtures will be used by GLSS officials to enforce specifications and dimensions. Non Spec Chevy heads will be allowed, but must be 23 degree heads and have an unaltered ASCS intake-restricting gasket installed. Unaltered means absolutely no modifications to bolt holes or port sizing. These gaskets are to be installed right side up with Logo to top. The ASCS restrictor gasket must protrude a minimum of .150 inch into the roof line of both the injector port and the cylinder head port. The .150-inch protrusion must extend fully across the roof line of the intake port in both the manifold and cylinder head. There shall be no streamlining or reshaping of intake ports or injectors to reduce the effect of the restrictor gasket. Non spec heads must have stock intake bolt location, and injector manifold is to be installed with stock 3/8 inch diameter bolts. No step studs or relocating bolt holes. You cannot enlarge or relocate restricting gasket bolt holes.
- e. Penalty for altered spec head or altering gasket will be subject to suspension for one calendar year. Forfeit all points and money won during the race in which the infraction was found and subject to a \$500 fine that must be paid to GLSS before reinstatement.
- f. Non-Spec 23 degree will be allowed but must have an unaltered ASCS or GLSS intakerestricting gasket(#8E89208) properly installed. The gasket must protrude a minimum of .150 inches into the roofline of both the injector port and the cylinder head port. Absolutely no modification to bolt holes or port sizing. These gaskets are to be installed right side up with logo on top.
- g. 305 cubic inch engines that meet Fremont (Ohio) and Attica (Ohio) Raceway Park rules are legal as is. Any car with a legal 305 engine must comply with all other GLSS rules.
- h. Oil pans must have an AN-16 or equivalent inspection plug, that when removed will provide direct access to the adjacent connecting rod. Oil pans without plug or direct access will be subject to pan removal at any time.

#### 4. Ballast Areas Allowed



#### 5. 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. We reserve the right to disqualify any individual whose weight mounting procedure does not meet our specifications.
- b. Chassis pass 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 wheel-base of 83 inches, maximum wheel-base 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 highly recommended 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 GLSS 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 (See Section 6A)
- e. Slip-tubing is not allowed in the chassis construction. Any existing slip-tubing must be replaced or welded. Clamped or bolted slip tube joint 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 draglinks. 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 contains 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. Headers: Must be a minimum of .045.
- k. Steel, Aluminum or Titanium brake rotors only.
- l. 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.
- m. No hollow, tubular or drilled out bolts allowed.
- n. The right side opening must be a minimum of 10 inches vertical at any point and 21 inches horizontal.
- o. 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.

## **6. Wings**

- a. Top Wing: (see Illustration i) Center Foil maximum size of 25 square feet with a maximum width of 60 inches with a one degree plus or minus tolerance. Center Foil shall be fully GREAT LAKES SUPER SPRINTS 9 | P a g e sheathed in aluminum. Vent holes are strictly prohibited. Other than the slider mechanism, no moving parts allowed on or in foil structure. Wing must be fabricated of metal alloys only. No fiberglass, carbon fiber or other similar material may be used in the basic framework of the wing.
- b. No wicker bills or Gurney lips permitted on Center Foil, unless center foil it totally flat. If flat, a two-inch wicker bill is allowed.

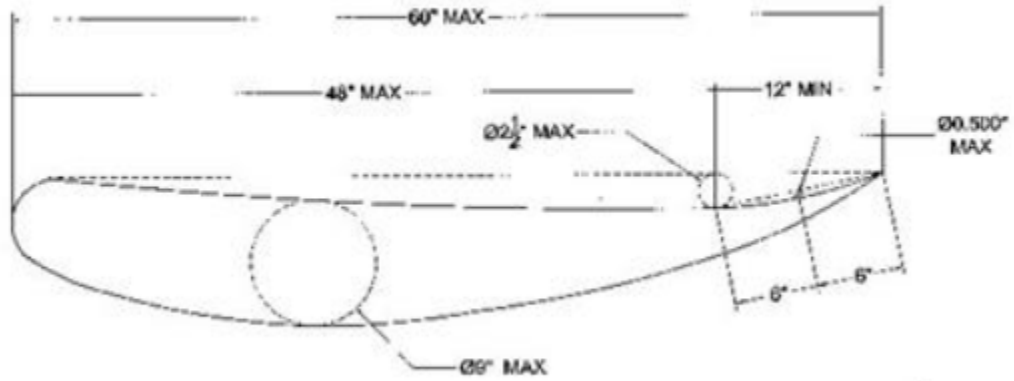




- c. The 12-inch section located at the rear of the Center Foil must not have the belly/curl arc out of proportion with the rest of the Center Foil. The belly/curl arc must span the entire length of the Center Foil and appear to be a gradual arc with the deepest point no further back than 48 inches from the leading edge. As measured on a 12-inch straight edge, the belly at 6 inches from the rear of the Foil may be deeper than  $\frac{1}{2}$  inch. There is zero tolerance on this  $\frac{1}{2}$  inch depth. It is suggested that the wing blue print specify  $\frac{15}{32}$ -inch depth, so that if any deflection or movement of the wing occurs, the depth will not exceed the  $\frac{1}{2}$  inch specification. (This  $\frac{1}{2}$  inch measurement ensures that the belly/curl arc is gradual.)
- d. The belly/curl arc must start at the radius of the Center Foil's leading edge and shall not exceed a depth of  $2 \frac{1}{2}$  inches. Center Foil thickness cannot exceed 9 inches. Center Foil top surface from side to side must remain flat. Center Foil must be 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. Top wing must not extend beyond the outside of the rear tires.
- e. 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.
- f. All side board panels must be within an eight-degree plus or minus tolerance.
- g. 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. No aero section side panel brace material allowed. No brace or support shall resemble a wicker bill or a split wing.
- h. 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 panels and no more than  $1 \frac{1}{2}$  inches on the top or bottom. The entire panel must remain perpendicular to the center foil. No bending the side panel and/or moving the braces to kick out the right side panel.



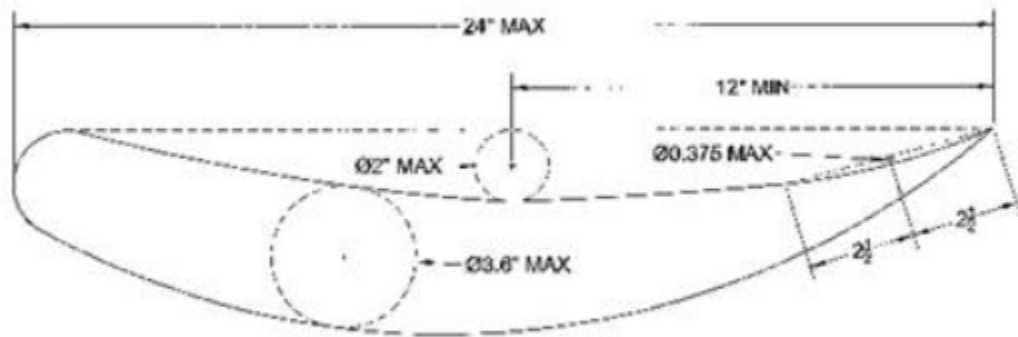
i. Top wing diagram/specification



- j. Front side boards maximum 12 inches tall and 26 inches long with no more than one inch overhang from the center foil front edge to the side board front edge. Side boards may have front, back, top and bottom turnouts of no more than 1/2 inch.
- k. Front Wing: (see Illustration q)
- l. Front wing must be made of metal alloys, max. 6 sq ft, max. 36" wide, max. 12" side boards with 1/2" turn out on top & Bottom of sideboards allowed.
- m. A 2" wicker bill allowed on flat or dished front wings.
- n. No split or bi-wings, gurney lips, rudders or any air flow altering devices allowed. Center Foil must be one piece. No fiberglass, carbon fiber or other similar material may be used in the basic framework of the wing.
- o. Maximum distance from the Center Foil front edge to the front edge of the front axle may not exceed 20 inches. The Center Foil front edge must remain at least 1 inch behind the front edge of the front bumper. The Front Wing must not extend beyond outside of front tires.
- p. The Front Wing may not be cockpit adjustable. No moving parts allowed on or in foil structure.



q. Nose wing diagram/specification



7. Fuel

- a. Methanol or Ethanol only. No nitro or additives or any kind allowed. Fuel is subject to be checked at any time. If fuel is found illegal, driver and car will be disqualified, and all points and money will be forfeited for that event. Driver or car owner will be responsible for any lab cost for fuel test
- b. Fuel tank: Fuel cell/tank and bladder are mandatory.
- c. No smaller than 24 gallon fuel tanks allowed at any time (27 gallon or larger fuel tank recommended).
- d. A fuel shut-off valve shall be required within easy reach of the driver while sitting in the car.

8. Tires and Wheels

- a. Right Rear Hoosier Racing Tire, 105 x 16.0 stamped Medium.
- b. Only Hoosier Tires on all four corners of all cars
- c. Bead locks recommended on all wheels. Insert type from rubber wheel covers or covers that are securely screwed to wheels will be the only of type wheel covers acceptable.
- d. Maximum right wheel width is 18-inches, maximum left rear wheel width is 15 inches.
- e. Absolutely no tire prep is allowed. If tire prep is found on your tires, you will be DQ'd for the remainder of the season and any points fund money will be forfeited.

9. Support Bar Diagrams ( Highly Recommended )

- 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

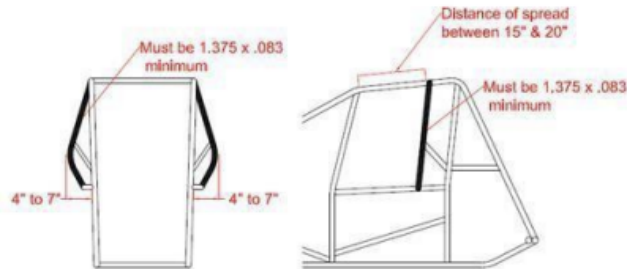


Diagram 16.12.1  
By Tom Devitt

**Diagram 2**

#2 Support Bar

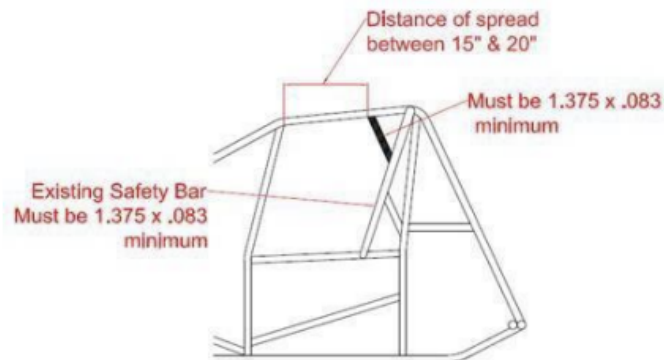
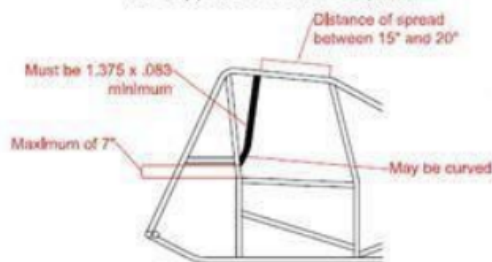


Diagram 16.12.2  
By Tom Devitt

**Diagram 3**

#3 Support Bar Curved Option



#3 Support Bar



Drawing 16.12.3  
By Tom Devitt