

# Top Gun Sprint Series 2024 Rule Book

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#### 1. FORWARD

- 1) The purpose of the Top Gun Sprint Series (TGSS) is to promote and conduct sprint car races and other racing-oriented events. In this pursuit, the TGSS has formulated and adopted the General Safety, Competition and Technical rules contained herein. These rules will become effective and enforceable as of the date of this publication and will constitute the rules and regulations that shall govern the conduct of all racing events sanctioned by the TGSS.
- 2) All participants must be in good standings prior to competition. Yearly membership is available for owner, driver or owner/driver. In addition, a small fee will be collected each night as a pill pull charge. A temporary permit may be purchased for single night participation.
- 3) All car owners, drivers, sponsors, crew members, and all persons involved in any way in any TGSS sanctioned racing events, shall be deemed to have read, understood, and agreed to comply with these rules and any and all amendments, supplements, and/or revisions that may be implemented. It is, therefore, recommended that all of the above listed entities read the rule book carefully to assure familiarity with the rules and regulations contained herein.
- 4) The rules and regulations as set forth herein are intended to establish minimum acceptable standards and requirements for all racing events. No expressed or implied warranties of safety shall result from the publication of or compliance with these rules and regulations. They are intended as a guide for conduct of the sport and are in no way a guarantee against injury or death to participants, spectators, or others.

#### **IMPORTANT NOTICE**

The TGSS Rule Book is not the only authority governing the actions and activities of the individuals who participate in a TGSS sanctioned racing event. We remind all participants that each racetrack where a TGSS sanctioned event is held is located within the boundaries of a particular city, county and state and is, therefore, within the jurisdiction of all the law enforcement agencies operating and having authority within these areas. Thus, all laws and statutes applicable to these areas are enforceable at each racetrack where TGSS sanctioned events are held and all violations will be dealt with accordingly by the various law enforcement agencies.

#### 2.CONDUCT

Any driver who exits their car and attempts to approach another driver on a live racetrack may be subject to a fine of \$500.00 plus points and/or be suspended for two weeks from any TGSS 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 TGSS 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 \$500.00 plus points and/or be suspended for a minimum of two weeks from any TGSS sanctioned event

The driver and one other designated person shall be the only spokesman for their particular crew.

You are responsible for your team. If your Driver or any Crew Members cause or are part of a fight, you will be fined \$250 for the first offense and put on a three (3) month probation. A second offense will result in a \$500 fine and suspension to be determined by TGSS Officials.

Any driver, while racing, who commits unnecessary contact or harassment or uses any driving tactic, whether intentional or not, that is considered dangerous by the starter, pit steward, or race director, will be deemed to be rough driving and subject to suspension at future races and/or loss of points as determined by the officials. Any driver not able to maintain adequate race speed or poses a threat to fellow competitors will be black flagged and removed from the track.

Sprint car racing is a very emotional sport. As such, good sportsmanship is the key element of any competitive racing program. This must include respect for all participants – drivers, owners, girlfriends, wives, mistresses, children, fathers, pit crews, and officials. For our part we will make every effort to be consistent with our rules regardless of whom or what is involved. We will treat all participants with respect and expect similar treatment in return. A racer's pit area is his castle – therefore please stay out of other racer's pit areas, especially after an incident where you have been involved with that racer. Drivers – remember that you are responsible for the actions of your crew. As such, any member of a team who verbally or physically assaults a TGSS official will be fined and/or suspended from competition. Sportsmanship does not just pertain to activities at the track. Be aware that we do our best to present TGSS and its drivers in the best light possible. We expect our drivers to do the same. Remember what you say has weight, what you type has meaning, what you do has consequences. Think before you lash out and refrain from posting to social media. You never know who is reading, listening, or watching.

#### 3. RULES OF PROCEDURE

The interpretation and application of all rules contained herein as well as all amendments, supplements, and revisions that may be implemented, shall be at the sole discretion of the TGSS Officers and race director.

All drivers are required to wear 2020 SNELL approved helmet, a fire retarding uniform, fire retarding gloves and arm restraints during competition. Fire retardant underwear is highly recommended. 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.

RACEceiver Radios are mandatory; we reserve the right to penalize drivers that do not run a RACEceiver. No two-way radios will be allowed. Any driver who willfully ignores orders given by TGSS officials in such a way as to bring potential harm to another competitor, official, or fan will be expelled for the night.

All cars must have a safety pin or bolt on each rear wheel outside of the wheel nut before going onto the racing surface

No speeding or unsafe driving will be allowed in the pit area. 5mph speed limit at all times in the pits at all tracks

All cars are subject to inspection by the technical inspector and race director or their designee at any sanctioned event.

All drivers shall use diligent effort to be ready to compete and have their cars ready and in line promptly when called.

No car will enter the track without permission of an official.

A car pitting under the yellow cannot return to the track if more than a lap has been completed under the ensuing green flag.

Pit crew members will not be allowed on the track unless permission has been granted by an official.

No repairs will be made on the track. Any car that pulls off the track during a restart situation will automatically restart at the end of the lap they were running on. In the event that more than one car pulls off, the last to return will start last on the lap they were running on and the others will line up in the order they return to the track on the end of the lap they were running on.

Any car stopping on the track for other than a red flag situation will be placed at the rear of the lap on which they were running. Any car committing a 360 degree spin that results in a yellow flag will be placed at the rear of the lap they were running on

The starter has complete charge of the track. Drivers shall immediately comply with the starter's commands, whether given verbally, by hand, or by flag.

The number of cars starting any race shall be determined by the race director.

All original starts will be at the drop of the green flag off of turn four. Two false starts and both front row cars fall back to the 2nd row.

If there is an accident before the first lap is official, the field will be completely restarted double file with the cars bringing about the restart going to the rear of the field. For the restart, the appointed TGSS representative will be stationed at the start finish line and will place an orange cone one and one half car widths from the outside wall. On all single file starts after one lap the restarts will start at a cone to be placed on the front straight-way. The leader must start in the designated restart zone and all cars must go outside of the cone in proper aligned order. Leader must set a consistent pace. Any car going inside of cone, hitting cone or passing a car prior to going outside of the cone will cause a yellow and be placed on the rear. If no yellow appears you will be penalized two (2) spots for each position passed at the finish.

The technical inspector or race director will enforce the rules and shall have the authority to deny car permission to race based on their judgment or its condition relative to such rules.

All racing must occur on the racing surface of the track as defined by the race director, except where movement of the racing surface is necessitated to avoid an accident.

The pit steward or race director will enforce the rules of procedure and will conduct and determine sanctions as they deem most appropriate.

Any rule or specification may be altered, deleted, or added at any time. The new revised rule or specifications shall be explained at the driver's meeting.

Space must be made available on both outsides of both sides of top wings for displaying decals of TGSS sponsors. Anyone that has not displayed the decals will not receive said awards. TGSS SERIES SPONSER DECALS ARE MANDATORY AND MUST BE ON THE CAR BEFORE THE CAR ENTERS THE RACETRACK.

Owners/Drivers must be a member in good standing of TGSS and be present at TGSS annual awards banquet in order to qualify for any point fund money. All owners/drivers who are wanting to be eligible for point fund monies must participate in 75% of TGSS sanctioned events. Any race team not represented at the annual TGSS banquet will forfeit all awards and monies due them. If any team is not able to attend the awards banquet, 1 person can be designated to represent a single team.

#### 4. RULES OF SANCTION

All participants are subject to the rules of the TGSS.

All participants must obey any order of the TGSS Officials that pertains to the operation of the racing event.

A violation of any rule or order is subject to a warning and/or fine. The whole race team is responsible for any violation. In the event of continued occurrences, the team may be suspended or fined \$50.00 to \$500.00 to be determined by the TGSS Officers. Fines collected will be allocated to the point fund.

A violation of any rule relating to abusive conduct, intoxicants, narcotics, or unauthorized contact with track or TGSS Officials may be subject to immediate suspension without warning.

A driver determined to be rough driving may be immediately suspended from the event and subject to loss of points for the event and/or fined to be determined by the TGSS Officers and the Director of competition.

Any car failing to meet technical standards before the race can be denied permission to start the event. After a warning by TGSS Officials of an infraction prior to the feature event and the infraction is not corrected, the owner and driver will be subject to disqualification from the event. Any car that becomes unsafe or a hazard while on the track will be removed from the race.

Any driver causing excessive delays in a race, such as multiple spins on his own or violating any rules procedures will be disqualified at the starter's discretion. Any car that spins out twice (2) will be sent to the pits or the infield for the remainder of that race.

Any car not running at a reasonable speed may be subject to disqualification for safety reasons. Cars that are 3 laps down to the leader will be blacked flagged

A car and driver qualify as a team. Each driver can qualify only one car. No driver will be permitted to change cars after taking the green flag of his qualifying heat race.

Any car that tries to get his position back or goes to anywhere but the tail of the field after a second push off is immediately black flagged from the event.

Any car requiring a second push on start or restart of race will be placed at rear.

Any team that is disqualified in their heat or "B" main may make repairs to correct the problem and start last in the "B" or "A" main. Any team that is disqualified in the "A" main will receive no points or money for that event.

#### 5. STARTING PROCEDURES

Following the completion of the pill draw during driver sign-in, the heat race lineup will be posted and will used for MANDITORY practice sessions.

Hot lap groups will be determined by pill draw at check in

All cars MUST participate in hot laps or will start last in their heat race. If you miss your hot lap group/session, you cannot fill into another hot lap group. You have forfeited your original starting position.

No one is to get to get on the throttle until the race director gives the ok.

Qualifying heat races will be held at all events.

The car count at the close of the drawing for qualifying heats will determine the number of heats to be run. As each number is drawn for a car, that number will be posted, and this procedure will be repeated until a number has been drawn for each car that wishes to compete. Any cars not represented at the drawing shall be placed at the rear of a heat race. Heat races will determine the starting position for the balance of races scheduled.

The passing point system will be used to determine starting positions in the feature events. The driver will receive points for passing as well as finishing position. A pill draw (4, 6 or 8 pill will be used) to determine the feature starting positions. Any driver failing to draw for heat races or pack racing surface (when requested) will not receive passing points. In the event of a tie in passing points, the driver who first earned the points shall be aligned in front of any subsequent driver earning the same number of points. Passing points will be figured on the actual starting position on the final parade lap.

#### PASSING POINTS

#### START POSITION

J.	1	2	3	4	5	6	7	8	9	10	11	12
1	100	105	110	115	120	125	130	135	140	145	150	155
2	91.5	93	98	103	108	113	118	123	128	133	138	143
3	83	84.5	86	91	96	101	106	111	116	121	126	131
4	74.5	76	77.5	79	84	89	94	99	104	109	114	119
5	66	67.5	69	70.5	72	77	82	87	92	97	102	107
6	57.5	59	60.5	62	63.5	65	70	75	80	85	90	95
7	49	50.5	52	53.5	55	56.5	58	63	68	73	78	83
8	40.5	42	43.5	45	46.5	48	49.5	51	56	61	66	71
9	32	33.5	35	36.5	38	39.5	41	42.5	44	49	54	59
10	23.5	25	26.5	28	29.5	31	32.5	34	35.5	37	42	47
11	15	16.5	18	19.5	21	22.5	24	25.5	27	28.5	30	35
12	6.5	8	9.5	11	12.5	14	15.5	17	18.5	20	21.5	23

FINISH

Time Trials may be held at some shows depending on track agreement. A car and driver qualify as a team. Each driver can qualify only one car. No driver will be permitted to change cars after taking the green flag of his qualifying heat race. An exception to this rule will be in a two-day race.

TGSS or their representative will advise drivers of the make-up of the number of heat races, main events, field maximum size and other pertinent information at the drivers meeting. The lineup posted on the pit bulletin board when cars enter the racing surface for any race shall be the final line-up.

The start will be official only upon the starter signaling with the green flag. In the event a pace car is used, all cars shall take their proper position behind it. In the event a pace car is not used, the pole car will set the pace which shall be consistent with track conditions and as required to keep the field in formation. TGSS shall be empowered to disqualify or penalize any driver violating this rule.

### "A" FEATURE POINTS

1	150	9	132	17	116
2	146	10	130	18	114
3	144	11	128	19	112
4	142	12	126	20	110
5	140	13	124	21	108
6	138	14	122	22	106
7	136	15	120	23	104
8	134	16	118	24	102

65 points will be awarded to all drivers that take a competitive green flag but fail to qualify for "A" feature. 50 points will be awarded to all drivers that make an effort to compete but fail to take a competitive green flag in Heat or Feature action. 50 points will be awarded to all drivers if a show is canceled following the completion of the night's draw in.

Top 18 in overall points will be locked into the A-Feature

In the event a two-day race is scheduled, the first day will be run with the same format as the second.

#### 6. POST RACE INSPECTION/PROCEDURES

At the completion of the heat and feature, the top three (3) heat race finishers and the top five (5) feature finishers will report to a designated post-race inspection area. The designated area will be announced at the mandatory TGSS driver's meeting by the TGSS director of competition. As a reminder to all, the designated area will be written on the feature line-up board. No excuses for not knowing the location of the inspection area will be allowed. If you are not sure of your finishing position, report to the inspection area and you will be notified by TGSS Officials if you are in the top five.

#### \*\*\*Score boards at the tracks are not official\*\*\*

Any of the top Three (3) in Heat and top Five (5) in Feature Finishers not reporting to the designated inspection area will be disqualified.

Tech inspection area is limited to three (3), driver and two (2) crew members only.

TGSS HAS THE RIGHT TO CONFISCATE ANY PARTS SUSPECTED TO BE ILEGAL OR DOES NOT MEET TGGS STANDARDS AND WILL BE RETURNED POST INSPECTION

#### 7. PROTEST PROCEDURES

#### **GENERAL POLICIES**

Only a registered car owner or driver in competition may file a protest.

All protests must be made in writing and must specifically identify the nature of the protest. Protest forms will be available in the TGSS trailer at any time.

The protest (written, signed and accompanied by the appropriate fee) must be presented to the TGSS official on the front straightaway immediately following the completion of the race event. If driver exits the track before filing protest, there will be no protest allowed.

Refusal to allow inspection under any protest will be considered as carbeing illegal and said car will be disqualified.

A \$800.00 protest fee will be applied for the protest of one specific item (pulling a head to look at the top of the piston or a valve size).

If the car is found to be legal, the protest will be disallowed and \$600.00 of the protest fee will go to the protested car owner and \$200.00 of the fee will go to the TGSS in order to defray associated expenses.

\$1000.00 protest fee will be applied to any protest requiring a complete engine tear down. This will include, but not be limited to, the inspection of the piston, rods or crank.

If the car is found to be legal, the protest will be disallowed and \$800.00 of the fee will go to the protested car owner and a \$200.00 to TGSS in order to defray associated expenses.

#### **P&G TEST**

\$300.00 fee for each P&G protested must be given to the race director at the time of the protest. If a car is legal, protested car receives \$200.00. If car is illegal, protester will receive \$200.00. In either case \$100.00 goes to the TGSS point fund.

In the event the block should fail P&G, the car owner or driver, at their option, may request a bore and stroke measurement for verification of legality. Bore and stroke measurement may not be used as a form of protest by a competitor.

#### **FUEL**

A \$300.00 fee for each fuel protested must be given to the race director at the time of the protest. If a fuel is legal, protested car receives \$200.00. If fuel is illegal, protester receives \$200.00. In either case \$100.00 goes to the TGSS point fund.

#### 8. TECHNICAL RULES

#### Cast Iron Block Engine Rules

360 Cubic Inches: plus I% maximum displacement (360 plus I%= 363.6).

No aluminum blocks. No Titanium in engines, excluding valves and valve retainers.

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.

Due to 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.

No timed fuel injectors will be allowed. Electronic fuel injection shall not be allowed. Only one injector nozzle and one injector line per cylinder.

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.

#### • Aluminum Engine Block Rules

List of Chevy aluminum engine blocks approved for TGSS Competition are as follows:

BRODIX® casting designation - letter A (std. cam location, std. bellhousing, std. pan rail), or I (raised cam location, std. bellhousing, std. pan rail) only.

TGSS approved Aluminum block part #'s as follows:

Part#	Bore	e/Main Cam	
8B	1000A	400/400	standard
8B	1050A	400/350	standard
8B	I 100A	350/400	standard
8B	1150A	350/350	standard
8B	10001	400/400	raised
8B	10501	400/350	raised
8B	11001	350/400	raised
8B	11501	350/350	raised

<sup>\*</sup>Cam and lifter size must be specified while ordering\*

SPEC logo on block is NOT to be modified and must remain 100% legible Absolutely NO lightening of any kind allowed Standard or raised cam allowed Oversized cams allowed Roller cam bearings allowed Minimum allowed deck height is 8.970" Maximum allowed deck height is 9.020" Oversized and keyed lifters allowed

Must be standard or GS-1 lifter location only. No exceptions

Must be standard oil pan rail Full bellhousing must remain

#### **Cylinder Heads**

List of Cylinder Heads approved for ASCS competition is as follows:

Chevy - #27-211 Ford- #27-223 Mopar- #27-222

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 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.

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 I 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.

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 I 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.

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.

Guidelines regarding porting and polishing: Intake port openings must match the following:

#### ASCS Chevy- FP #1206 or equivalent

Ford- FP#l 262 or equivalent Mopar- FP#1213 or equivalent

Porting and polishing of intake ports is allowed with the following restrictions:

#### All ASCS logos must remain completely intact.

Intake port openings must meet previous requirements.

Valve spring pockets may not be welded or altered in any way with intent to relocate ports.

Maximum allowable width of pushrod area as follows:

ASCS Chevy- 2.630 ASCS Ford- 1.300 ASCS Mopar-2.450

\*\*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.

Absolutely no exhaust port relocation, raising, enlargement, or reshaping of any kind. Polishing is allowed as long as the original ASCS logo is not affected, or port shape is not altered substantially.

Valve spring pockets may not be welded or altered in any way with intent to relocate parts. Exhaust port openings must meet previous requirements.

Polishing will be allowed in the combustion chamber area to avoid hot spot chaffing. Any internally repaired ASCS spec head must be re-certified by Brodix.

## All spec heads must remain within I degree of the original manufacturing [Chevy: 23 degree, Ford 20 degree, Mopar 18 degree]

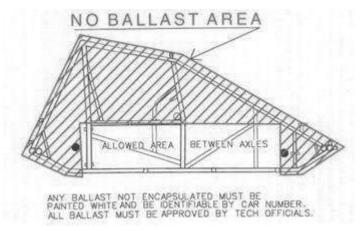
Penalty for altered spec head will be subject to suspension, for one calendar year. Forfeit all points and moneys won, during the race which the infraction was found, and subject to a \$500 fine that must be paid to TGSS before reinstatement.

All oil pans must have inspection plug, pans without plug will be subject to pan removal at any time. No Turban driven, Turbo or blower will be allowed.

Only two valves and one spark plug per cylinder allowed. No big blocks.

No offset motors will be allowed, engine must be directly in front of driver. Driver must straddle drive-line. 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.

#### Section 5 - Ballast Areas Allowed



#### **Chassis Specifications**

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. (See illustration above)

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.

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 Top Gun Sprint Series Officials. These additional bars will be minimum 1.375 X .083 ASTM4130 normalized steel or equivalent material.

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)

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.

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 (I) 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.

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.

Carbon Fiber connecting rods having to do with suspension or steering are not permitted.

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.

Mufflers: Mandatory per track requirements, (unless otherwise stated). Schoenfeld part #14272735-78, 112350 or 112535. Loss of muffler will result in disqualification when mufflers are required.

Headers: Must be a minimum of .045.

Steel, Aluminum or Titanium brake rotors only.

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.

No hollow, tubular or drilled out bolts allowed.

The right-side opening must be a minimum of IO inches vertical at any point and 21 inches horizontal.

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.

**Support Bar Diagrams** 

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

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

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 *I* 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

#1 Support Bar

Diagram 1

#1 Support Bar

Distance or spread between 15" & 20.

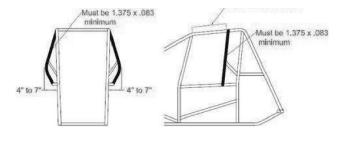


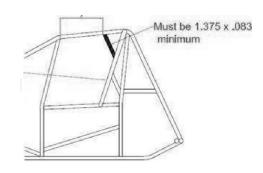
Diagram **2** #2 Support Bar

Distance of spread between 15" & 20"

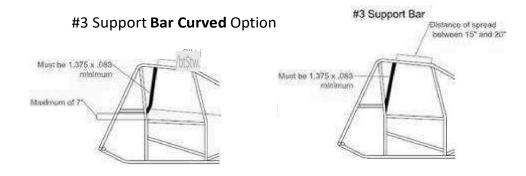


Must be 1.375 x .083.

minimum



#### Diagram 3



#### **Wing Specifications**

Top Wing: (see Illustration below)

Center Foil maximum size of 25 square feet with a maximum width of 60 inches.

Center Foil shall be fully sheathed in aluminum. Vent holes are strictly prohibited.

No wicker bills or Gurney lips permitted on Center Foil unless center foil is totally flat then a two-inch wickerbill is allowed.

Other than the slider mechanism, no moving parts allowed on or in foil structure.

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 not be deeper than ½inch. There is zero tolerance on this ½ inch depth. It is suggested that the wing blue print specify 15/32-inch depth, so that if any deflection or movement of the wing occurs, the depth will not exceed the ½ inch specification. (This ½ inch measurement ensures that the belly/curl arc is gradual.)

The belly/curl arc must start at the radius of the Center Foil's leading edge and shall not exceed a depth of 2½ 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 outside of rear tires.

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 I 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.

Wing T-Post will be built from I" 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 #HRP881I-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).

Front Wing: (see Illustration below)

Center Foil maximum size of 6 square feet with a maximum width of 36 inches with a one degree plus or minus tolerance.

Center Foil shall be fully sheathed in aluminum. No vent holes allowed.

Wicker bills up to 1-inch are allowed on nose wing, flat or dished.

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. Center Foil top surface from side to side must remain flat.

Center Foil must be one piece. No split or bi-wings will be allowed.

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 Front Wing must not extend beyond outside of front tires. The Front Wing may not be cockpit or driver adjustable while the car is stationary or in motion.

No moving parts allowed on or in foil structure.

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  $\frac{1}{2}$  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).

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.

No rudders or fins on Front Wings.

#### **Sideboard Panels**

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

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 I inch in width may be used.

No aero section side panel brace material allowed.

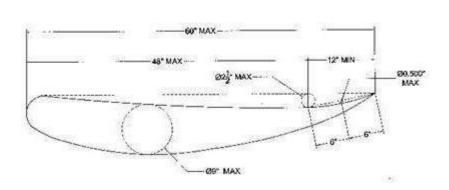
No brace or support shall resemble a wicker bill or a split wing.

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 ¼ inches on the top or bottom. Panels must be mounted parallel and square to the center foil with no more then 1 ½ inch of

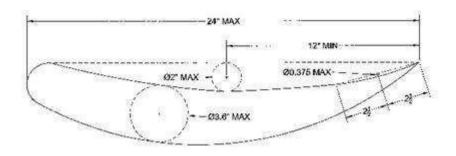
turnout as measured from the Center Foil. Only two (2) corners on the 2/3 of each top wing sideboard will be permitted. Each comer shall be set at a 90° angle with no tolerance. The leading edge of the sideboard may not be behind the leading edge of the Center Foil.

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

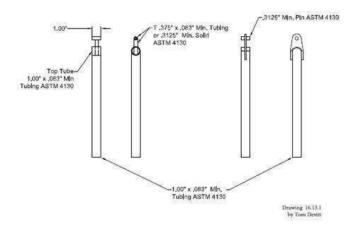


#### Nose Wing Diagram/Specification



Wing T-Post Diagram/Specifications

WIng T-Post



#### Fuel

Methanol or Ethanol only, NO NITRO or additives allowed. Fuel subject to be checked anytime by TGSS officials. NOTE: Fuel samples may be taken for analysis and prize money may be withheld until results are known. (Penalty for fuel infraction will result in forfeiture of all points and moneys won during event detected, and a fine up to \$1000 for first infraction. 2nd infraction subject to suspension up to 1 calendar year.)

Fuel Cell must be securely mounted with bladder mandatory. Tank used for Qualifying Heats must be remain for all events.

#### **Numbers**

Numerals 18" high must be displayed on both sides of race car tail section and both sides of top wing sideboards. Numerals 18" or larger must be in the center section of the top wing, also.

Anyone using duplicate numbers must use a letter designation. Letter must be at least 9" high and visible from both side and center of the wing and tail.

#### **Tires and Wheels**

Right Rear Hoosier Racing Tire, 105x16.0-15 Medium or 105/18.0-15 F85A. Tires may be Siped and Grooved.

Beadlocks recommended on all wheels.

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: • Keyser Manufacturing, part #100 7-101 • Wehrs Manufacturing Part # (WM377A-312 Aluminum 5/16) (WM377S-312 Steel 5/16) • Triple X Chassis Part # SC-WH-7810 (for a 1" spring) / SC-WH-7820 (for a 1 3/8" spring) • Smith Precision Products Part # MC-516-18 • Speedway Motors part # 910-07119

Optional fastening systems that are equal of superior to the above approved system will be readily approved at the sole discretion of TGSS Technical Officials.

Maximum right wheel width is 18-inches, maximum left rear wheel width is 15 inches.

Left Front is the only tire you can run flat.

The Left Rear tire must be a Hoosier Tire.

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.

All sidewall markings must be visible at all times. No buffing or removing of the compound designations.

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.

Cockpit adjustable shocks are not allowed

#### **Tire Penalties and Infractions**

First offense for the season: Fail hot laps/heat race durometer inspection and you can start tail end of an assigned B-Main event. Fail B-Main pre-race inspection and you will be finished for the night. Fail A-Main pre-race inspection you will not be permitted to start the A-Main.

Second offense for the season: \$1,500.00 Fine and 300 points plus any winnings that have accrued for the event, violator(s) will assume all costs included in any testing procedures, no points and no money will be awarded for that event.

Chemically Altered or Defaced Tires 1. First offense for the season: \$1,000.00 Driver Fine / \$500.00 Car Owner/Crew Chief Fine, driver and Crew Chief Suspended indefinitely, no points, no winnings, and the Driver and/or Crew Chief assume all costs of testing procedures. If tires are found to be legal, TGSS shall assume responsibility for the cost of testing.