



2022 Late Model Rules

General

These rules and regulations are designed to govern driver and crew member conduct during GSS racing events. By participating in these events, all drivers are required to comply with these rules. While GSS makes no claim of guaranteed safety, these rules are enforced as a guide for the conduct of the sport. GSS is in the entertainment business. Drivers, Owners, Crew and GSS Staff cooperate to provide this exciting level of entertainment. All rules, race scheduling and structure, are designed and implemented to support a balance between competition and entertainment value. Drivers and crew are required to conduct themselves as professionals at all times. GSS may change any rule at any time in an effort to reduce the cost of racing, maintain equal competition, or improve safety.

ALL EQUIPMENT IS SUBJECT TO THE APPROVAL OF GSS OFFICIALS. NO EQUIPMENT WILL BE CONSIDERED AS HAVING BEEN APPROVED BY REASON OF HAVING PASSED THRU INSPECTION UNNOTICED. EFFORTS TO TAKE ADVANTAGE OF "LOOPHOLES" IN THESE RULES WILL NOT BE TOLERATED. ALL RACE CARS WILL BE SUBJECT TO INSPECTION BY TRACK OFFICIALS AT ANYTIME.

2022 Late Model Specifications



1. SAFETY EQUIPMENT

1A. SEATS - Approved aluminum driver's seat required.

Seat must be fastened to frame/roll cage with minimum 3/8" grade 5 bolts and oversized washers and located to give adequate distance from driver's arm to door bars. Shoulder supports on right and left sides of seat and head support on right are required. Full containment seats recommended. Seat may not protrude outside 4 point upright or top cage halo. All driver seats must be manufactured by a recognized manufacturer of seat and safety equipment, multi-layer aluminum seat and approved by GSS officials. Seats may also be Carbon Fiber or Carbon Composite or others. This should not be used as a weight saving measure. We have found several new seats that are affordable and safe and meet with the rules and thoughts of the GSS. Seats must remain "as purchased and produced", no holes or other modifications made for weight reduction. Homemade seats or sprint car type seats are not permitted. Seat construction must be approved from the seat bottom to above the driver shoulder area; must be fully padded, with padded pelvis, rib and shoulder supports on both the left and right side. Exception – Lajoie seat where construction is such that rib supports are not required. Bolt on head / shoulder containment systems are approved for competition. Seats must be equipped with left and right leg extensions, fully padded, running from the edge of the seat to the entrance of the foot box area. The area behind the driver's seat and in front of left rear trailing arm mount is strongly recommended to be plated with a minimum .090" thickness steel plate, measuring a minimum 10" inch tall by 12" inch wide. Plate must be securely welded or bolted into place to frame / roll cage. This plate is strongly recommended for 2022 and will be absolutely mandatory in 2023.

1B. SAFETY BELTS-Belts must be dated within 3 years of event date or newer. All seat belt and shoulder harness systems must be SFI specification 16.1, type Y-type shoulder belts are not approved for use. A minimum five-point harness system is mandatory. Competitors using the HANS device may use a standard three-inch (3") or the Schroth racing or equivalent two inch (2") wide shoulder strap. Schroth Racing shoulder strap system has been specifically designed for use with the HANS device. Schroth part numbers are profi iii-6fh; hybrid iii-h; profi iii-6h. Shoulder harness belts shall not be mounted lower than the shoulder line of the driver or 10 degrees. Belts must be anchored to roll cage or frame. Grade "5" bolts 1/2" min diameter required. Shoulder harness belts shall not be mounted lower than the shoulder line of the driver or 10 degrees. 6-point belts (double crotch strap) are recommended.

1C. FIRE SUPPRESSION SYSTEM-A minimum five-pound (5) on-board fire suppression system is required. 10# fire suppression with multiple discharge points is highly recommended. Cold Fire systems recommended for cockpit usage. Must have gauge in view and must be fully charged. Cockpit must be completely sealed off from engine compartment and fuel cell. Roll bar padding required around driver; Recommended: Fire retardant padding.

1D. LEFT SIDE WINDOW NET-Left side driver window net is mandatory. Construction must be web-type safety net with mechanical release. Net bar must be a minimum of .1875-inch (3/16") flat steel or .375-inch (3/8") round stock and run the entire length of the window net between mounting points. Mechanical release must be welded to the front or "a" pillar end of the bar. Spring-loaded releases are not approved for competition. Driver net must be secured in place and centered in the door area and must be secured to the upper roll cage horizontal member. Window nets must drop down. Must latch on top. No Fish net style window nets.

1E. DRIVER'S ATTIRE- Complete SFI- approved fire retardant driving suit designed for racing along with fire retardant gloves, socks, underwear, and shoes required. Eye protection and a **Snell SA-2015** or newer helmet required. Snell "M" or D.O.T helmets not allowed. Use of head and neck restraint devices is highly recommended for all hot-track activity. Approved devices are the HANS device, LFT Technologies R3, Simpson and the Hutchens ii device. GSS officials will monitor items related to safety, but ultimately it is the responsibility of the driver to monitor, maintain, and update his safety equipment.

1F. CARBON FIBER USAGE-Carbon fiber for safety use only in Seats, Helmets & Hans Devices. Carbon Fiber is NOT allowed for dash, panels, duct work, bolts, brake ducts, brackets, or braces made out of this material.

2. BODY

2A. Five Star Next Gen, Original ABC body configuration and AR Revolution Series Body are approved and must be mounted in accordance with The Five Star Referee specifications and allowances. Original ABC body configuration rules apply, unless otherwise stated. The Five Star Referee will be the official method of body measurements including tread width. Refer to rulebook body guidelines posted at <http://www.fivestarbodies.com> No attempt to get any aero advantage allowed, panning of nose or sides, windows, side skirts, noses, tail panels, etc. are not allowed. Five Star Bodies or flat 12 inch side vent windows only, 3 window braces front and 2 rear window braces required, and must be approved. Clear polycarbonate quarter panel windows with a minimum thickness of .090 inch must be used in all cars. No cutting, lightening, or excessive trimming around windows or drilling of holes in any body panels or windows to exhaust air. No panels allowed to extend tops of doors, add to The GSS/Five Star Rules MEASUREMENT "A" Must be a minimum of 11.5 inches and nose measurement must be 20 inches minimum from hood to bottom of the nose at all times. Right side door inner panel must drop down from the door and must be official approved. Panning under car (weight trays) will be allowed, panning may start at foot box and only run to back of driver's area (cockpit) and remain inside frame rails. Rub rail are discouraged and may only be used if they are polycarbonate. Window tint of any kind will not be allowed on windows or spoilers. Titanium bolts, brackets, braces, are not allowed.

2B.BUMPERS-No Aluminum bumpers front or rear, must be minimum 1-1/4 in OD, 0.065 in Wall, Steel.

2C.RIGHT SIDE DOOR BAR-Right Side Door Bar Assembly must be minimum 1 1/4" O.D. x .065 Wall Steel only. No Aluminum door bar allowed.

2D.SPOILER-All spoilers will have a minimum 3/16" thick clear polycarbonate blade with no lettering and a maximum width of 60" measured across back of spoiler and maximum blade height of 5". Spoiler must be centered on bumper cover with each blade measuring maximum of 29-3/4" with a minimum 1/2 inch to maximum 5/8 inch split in the center to accommodate the centerline template, no tape or inserts may be used to cover this opening at any time. Minimum spoiler angle is 55 degrees. Rear bumper cover; top height 34-7/8" max at base of spoiler on centerline; max spoiler height is 41.5" on 4" blocks. Rudders or forward mounted brackets will not be permitted.

2E. Cars will be placed on 4" blocks to confirm correct height of body components and fuel cell height.

2F. Standard opening for the grill screen area only as approved for ABC manufacturers' production, must be maintained at all times. Only ABC approved manufacturers' mesh screen may be used for the radiator opening in the nose with a minimum of 3/16" stainless mesh.

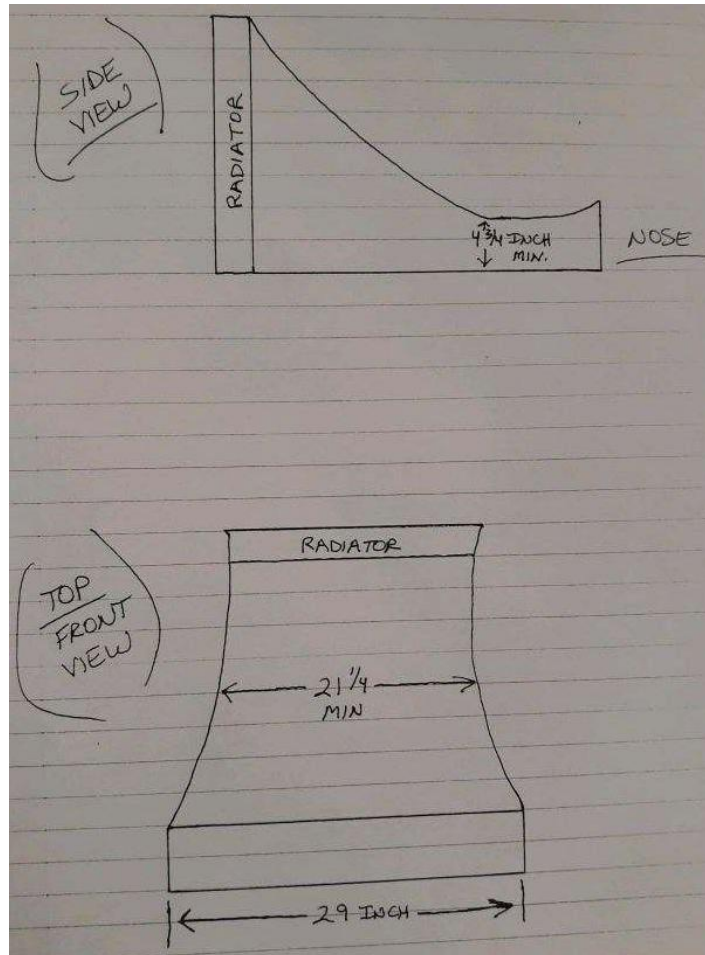
2G. *Tape may NOT be used on the radiator grill opening or brake ducts in the nose at any time or on rear spoiler blades.* Tape is allowed on hood seams only.

2H. Air intake boxes are permitted for the carburetor with cowl inlet only. The back of the cowl induction box must be flat or must be stock Five Star or AR part. No additions to or devices for directing the flow of the air into the air cleaner or air cowl intake box are permitted. You may not grab or funnel air into air intake box in any fashion. No type of forward air intake allowed. Air cleaner is mandatory to act as a flame arrestor. No additives allowed in air filter.

2I. The duct work between the nose and the radiator may be no wider than 29" at any point and also must not be any wider than the radiator at its connection point. The duct work shall consist of a one piece flat or curved bottom panel and the sides and top panels may be either flat or curved construction. The smallest (narrowest) vertical dimension point of the side panels is 4 3/4" in height and the narrowest across dimension of the top panel is 21 1/4". The interior of air box between nose and radiator shall be clear of any added devices or obstructions that interrupt deflect or obstruct incoming air to the radiator. Openings for brake cooling ducts are permitted off of the sides of air box but may not extend into interior of duct work. A Five Star C-5 air flow plastic duct or Bump-N-Run bag product or AR Body EZ Max plastic duct system may be substituted in lieu of conventional aluminum duct work. No Carbon fiber allowed in this process. No

types of under-body air deflectors allowed. Bottom air box panel for radiator duct work must attach to the bottom front edge of radiator area and not contain any air scooping design as to direct air into radiator bottom area. Approval of any design of air box duct work shall be the decision of tech officials and/or competition director. No Carbon Fiber; radiator ductwork.

APPROVED SIZING FOR NOSE TO RADIATOR AIR DUCT BOX



APPROVED FIVE STAR & AR AIR DUCT MANAGEMENT PRODUCTS



3. TRACK WIDTH / WHEELBASE

3A. Maximum tread width front and rear is 65" (zero tolerance allowed) measured center to center of tires at spindle height.

3B. Minimum 101" wheelbase required on both sides.

3C. The Five Star Referee is the official device of measurement

4. CHASSIS

4A. Tube or stock stub allowed.

4B. All chassis must have driver's foot protection bar (Martin bar) and left side foot protection plate minimum sized of 9 inches high by 12 inches long and be no less than .090 inch thick minimum. Left side martin bar must curve into and connect to the left front sub frame upright behind left front tire area. Absolutely no straight blunt ended martin bars are allowed.

4C. Tow hooks on front and rear required.

5. ROLL CAGE CONSTRUCTION

5A. -The following is the minimum specification requirements for roll cage construction approved for GSS competition. GSS officials reserve the right to sonic test any or all, structural chassis members at any time during a sanctioned event. Structural chassis member(s) found in violation of minimum requirements render that chassis ineligible for competition until minimum standards are met or exceeded. Drilling holes to lighten any part of the body, chassis, suspension or bolts is not permitted. Only steel round; rectangular or square tube is approved for roll cage or chassis construction of any main or supporting substructures. Wall thickness; size and/or diameters are specified where necessary. A four-point (4) roll cage structure utilizing a minimum 1.75- inch x .090-inch (1-3/4"x.090") diameter DOM. steel tubing is mandatory. The entire structure must be welded to the primary frame structure with a minimum of four (4) horizontal driver side door bars and a minimum of three (3) right side diagonal bars. A minimum of 2" x 3" x .095" wall steel tubing is mandated for main frame rails. Main frame rails are identified as midsection rails. Main frame rails and side rails must be located within the normal tread width of the car and must be a minimum outside to outside width of 50 inches. A minimum of 2" x 3" x .083" wall steel tubing for front clip rails, rear clip kick-up rails need to be a minimum of 2"x2" square x.083" wall. No material substitution permitted. Roll cage structure must be braced to the front frame stub, with the hoop section surrounding the engine compartment; running rearward with diagonal member's connection to the rear frame section. Nose, right side kick outs and rear bumper cover supporting structures must be a minimum 1.250-inch x .063- inch OD steel tube. No material substitution permitted, no aluminum allowed on the structure of the chassis. The dash bar running between the 2 front roll bar legs must be one continuous bar, 1 3/4 OD. X .090 wall thickness minimum with no bends and have a minimum height of 16 1/2 inch above frame rail tops. The roll cage halo must be made from DOM tubing 1-3/4 by .090 wall thickness minimum, must be minimum height of 38 inches off frame top, have an outside to outside minimum length of 28 inches front to rear and an outside to outside minimum width of 25 inches from side to side. Halo must remain parallel within 1 inch of main frame rails. Chassis construction violations such as not having 4 left side driver's door bars as stated above, thin wall main frame thickness etc, will be subject to a minimum **25# weight penalty** and or needed repairs before further use in competition as determined by GSS tech inspectors.

5B. DRIVER SIDE DOOR PLATES

1. Left side driver support bars and plates are mandatory, no drilling for lightning allowed
2. No material substitution is permitted.
3. All support bars and plate installation is subject to approval. Solid filled from A-B post.

4. All plates must be minimum .090 Steel or add 10#'s for non-compliance, sonic testing used

See options listed below Plan A or Plan B

Plan A – minimum .090 solid steel plate bolted or welded securely to the left side door portion of the roll cage. Doorplate shall be bolted to the roll cage using a minimum of six (6) each 3/8" (.375-inch) aircraft quality bolts and washers. Welding of the plate to the roll cage is allowed.

Plan B – minimum .090 thickness steel plate must be welded to the space between each left-side door bar. Offset chassis right side door bars commonly called the outrigger or the kick-up bar, must be constructed of a minimum 1.250-inch x .065-inch wall round or square steel stock. Front of outrigger bar must go to right front frame behind right wheel. All supporting substructure must be constructed of 1-inch x .063-inch wall round or square steel stock. No material substitutions permitted.



6. SUSPENSION

- 6A.** Coil over or leaf style suspensions only.
- 6B.** No computer or hand operated controlled suspension.
- 6C.** No titanium, exotic materials, parts, or components allowed anywhere on racecar,
- 6D.** No hollowed-out bolts of any kind on suspension components.
- 6E.** Front suspension adjustment must be done from under the car or by lifting the hood. No holes in the hood, fenders or other body parts from the windshield forward to adjust front suspension component(s)
- 6F.** No suspension adjustment devices are permitted in the driver's compartment area or in reach of driver at any time in car. Weight transfer or suspension adjustment devices, adjustable while the car is under way are prohibited.
- 6G.** Rear suspension must be Non-independent, live axle type only.
- 6H.** Remote rear suspension adjusters are permitted when accessible through the rear window. A Maximum of three (3) one-inch (1") diameter holes are permitted in the rear window. Each hole can allow access to one adjustment device only. No adjuster may extend forward of the rear window area.
- 6I.** Rear suspension must be solidly mounted (Heim Joints only-no rubber bushings), 3 or 4 link only. No 5th Coil Suspensions, No birdcage set-ups or spring-loaded/hydraulic suspension device, rear stabilizer bars or lift bar suspensions. Senneker Type T-arm assemblies or bridge kits are not allowed. Trailing arms must mount to rear end in a solid fashion, No part of the trailing arm mounting may freely rotate around the rear end, must be welded or bolted in place. Trailing arms mounting behind the driver must have a 1/8" steel protection plate protecting driver. No cantilever, wishbone, or torsion type suspensions maybe used.

7. REAR END

7A. Rear ends may be stock or rear spur type quick-change units with minimum 10 inch ring & pinion

7B. No open tube rear ends permitted.

7C. No Aluminum tubes allowed. Steel tubes only.

7D. Material used for rear end section is at the discretion of the team, hub pins must be steel.

7E. Maximum camber ½ degrees and measured w/the rear axle level. One-piece straight spline drive plates only.

7F. No titanium or traction wrap up axle shafts, Left side & right side gun drilled axels must have the same I.D. and O.D (Solid axles on both sides & with a minimum of 1.125 O.D. will receive a weight break of 25#) Magnetic steel axles only.

7G. Cars must be utilizing a locked rear end with a Spool. No part of the spool may move or twist.

Ratcheting/Torque Sensing differential are NOT Allowed

7H. All plugs (drain, inspection, etc.), must be safety wired, a **\$25 fine** will be assessed to any car whose rear end plug is not secure while on the racing surface. Fine will double per occurrence.

8. SHOCKS/ SPRINGS/SPINDLES

8A. Approved for competition Non-Adjustable Shocks-series; Afco 13T, R, S, 21,24 ARS 2000, Bilstein SZ, SN, Carrera 62,65,67, Genesis GSO, Integra Avenger 411, Integra 431, Pro A, AC, TA, PG, QA1 16,21,26,50,51,62,63,67series. Manufacturer's components must be used, valving optional. KONI sealed adjustable (NON-Rebuildable) shocks allowed, are as follows: A. Model # KON30-7436, KON30-7499, KON30-7325, KON30-9325, KON30-9436, KON30-7647. The bump stop that is enclosed will not be allowed, must be removed. KONI Shocks may be exchanged by GSS tech officials at any time. Conventionally mounted 5-inch springs or coil over type suspensions with only one (1) shock and (1) spring per corner of the car is permitted. Spring must be magnetic steel.

8B. Minimum Coil Spring diameter 2.5" x 8" in length

8C. NO Bump-Stops/Rubbers, Compression/Rebound-limiting or Coil-Bind set-ups. NO chains,bolts, straps, etc.

8D. No electricity to the shock, and no shock may be adjusted by driver within driver's compartment.

8E. Spring rubbers are permitted and must be removed manually. No removal devices may extend outside the body of the car or be accessible to the driver in the driver's compartment.

8F. Heating pads, cover and/or blankets will not be permitted over the shock absorbers.

8G. Spindles must be Steel. Aluminum steering-arm and ball-joint mounts allowed.

9. STEERING

9A. Rack and pinion or steering box with center link style

9B. Quick release steering wheel required.

9C. Steering shaft must incorporate a minimum 2 U-joints and deflect force away from driver.

9D. Collapsible steering shaft recommended.

9E. No electric power steering units. No titanium steering components or hardware allowed.

10. BRAKES/ROTORS/HUBS

10A. All cars must be equipped with functioning four-wheel hydraulic brakes. All brake lines must be fully visible for inspection at any time and must not be run thru the inside of any part of frame.

10B. Maximum 4 piston brake calipers. Steel or aluminum.

10C. Titanium brake components and or brake hardware is not allowed.

10D. No Thermal Lock Pistons allowed.

10E. No ABS units or brake recirculation systems, or floating caliper brackets.

10F. All air for brake blowers for front wheels must be taken from nose or radiator air box only, may not pull air from under car at any time. Max 2 per each wheel. Air may only be directed to the brake rotors. Air may not be blown or forced onto the tire or bead. Ultra-cool Fans may also be used. Carbon Fiber fans are not approved.

- 10G.** No hoses or holes through the interior sheet metal for drawing air to the rear brakes. Fans, ducts or hoses to the rear brakes will not be permitted.
- 10H.** One (1) mechanical brake pressure proportioning system to adjust front to front to rear bias, will be permitted. Electronic or remote-control devices will not be permitted.
- 10I.** Fixed mounted Steel rotors only maximum diameter 12¼" rotors, no drilling permitted. No floating or self-centering rotors No carbon fiber rotors. Only steel rotors are allowed (no titanium).
- 10J.** Electronic wheel speed sensors, power assisted braking systems or brake actuators will not be permitted.
- 10K.** Liquid or gas cooling of the brakes will not be permitted.
- 10L.** Aftermarket hubs with 5/8" wheel studs required, No gun drilled studs permitted.
- 10M.** Wide five hubs and spindles allowed.
- 10N.** Oil filled (or oil filled design) or roller ball bearing style hubs **Add 25#'s**

11. TIRES

11A. TIRES-Approved Late Model Tire: Hoosier D800 only.

Hoosier D-800 will be sold at track.

11B. Chemical Treatment of Tires: Tire softening is not permitted and if found guilty will result in the disqualification from the event and loss of prize money and points. Drivers guilty of altering and/or chemical treatment of tires will also be suspended for the next night of racing. If a driver is found altering and/or chemical treatment of tires on the last night of competition, he/she will be disqualified for that night of points and prize money and deducted of all points from the previous night of competition. The definitive method to determine if a tire is legal will include a durometer reading with the exact number to be provided by Hoosier, taking into account model of the tire and tire temp. Failure of a tire to meet the minimum reading may result in seizure of the tire, fine, penalty, and/or disqualification as mentioned above.

12. WHEELS

- 12A.** Aftermarket made for racing, steel wheels required, 15"x 8" inch maximum.
- 12B.** Wheel must be 5x5 or wide 5 pattern only.
- 12C.** Minimum Wheel Weight 14 lbs. Steel Wheels only permitted.
- 12D.** No tire pressure reliefs or bleeders of any kind allowed.
- 12E.** Wheel Studs and Spacers: A minimum of five (5) lug nuts per wheel, minimum 0.625-inch (5/8")
- 12F.** Solid steel nuts, showing a minimum of two (2) threads through the nut, must extend through the lug nut when clamping the wheel to the hub.

13. CLUTCH

- 13A.** Performance grade stock or racing clutch permitted. Minimum diameter 5½", two-disk clutch min.
- 13B.** Absolutely no carbon fiber or poly clutches allowed.
- 13C.** Bell housing must have an opening at bottom (to allow a clear view of clutch).
- 13D.** Only standard material clutches allowed. No Slipper or Centrifugal clutches allowed.

14. TRANSMISSIONS

- 14A.** OEM production type transmissions, Internal clutch transmissions allowed with weight penalty.
- 14B.** Aftermarket transmissions (*Bert, Brinn, Falcon*) allowed. (*2-speed, 3-speed, 4-speed and automatic*).
- 14C.** Must have two forward and 1 reverse working gears plus a neutral position minimum.
- 14D.** No bottom load transmissions.
- 14F.** No 5-speed or more transmissions, No 'in and 'out boxes allowed. Must be self starting
- 14G.** Standard clutch type transmissions must have a blow proof bell housing (*steel or aluminum*).
- 14H.** Automatic transmissions must have an approved scatter shield.

15. DRIVESHAFT

15A. The drive shaft shall be made of steel or aluminum only with a minimum diameter of 2.5". Carbon-fiber not permitted.

15B. Containment hoops (2 required), constructed of a minimum 0.1875-inch thick steel, are mandatory and the forward hoop Must be 4-5 inches minimum behind front yoke.

15C. Steel Drive shafts must be painted white.

16. WEIGHT/ENGINE PACKAGE COMBINATIONS.

16A. All cars will be allowed up to a maximum left side weight percentage up to 58.0% & 51.0% rear

16B. Weights include driver, race ready with fuel on board.

16D. All weights are Pre-Race / with fuel allowance of 1/2# per lap post-race.

16E. All lead weights must be painted white, with the car number painted on each individual piece. All lead weights must be securely fastened with grade five 1/2 bolts minimum with washers and lock nuts. Any loss of weight from any car will result in a \$50 fine. Fine will double per occurrence. No Tungsten or similar weight allowed! All weight must be in solid blocks.

Fuel allowance is one 1/2# per lap & caution lap provision if necessary of 1/4#

Base Weight	Engine	Carb	RPM	%'s
2725	GM 602 Crate #19258602 W/HEI Dist	Holley 650cfm 4bbl 4150 HP carburetor, part number 80541	6200 RPM Chip	58% Left Max 51% Rear Max
2775	GM Certified 604 Crate # 88958604 or 19318604	Holley 650cfm 4bbl 4150 HP carburetor, part number 80541	6700 RPM Chip	58% Left Max 51% Rear Max
2850	Limited Concept Engine Iron Head Only	Holley-4412 500 cfm 2bbl		58% Left Max 51% Rear Max
2850	Non-GM certified or Updated Crate 602 or 604	Holley 650cfm 4bbl 4150 HP carburetor, part number 80541	6200/6700 RPM Chip	58% Left Max 51% Rear Max
2850	Wegner 5.3L sealed engine Must have 20lb weight plates on each side of the block	Holley-4412 500 cfm 2bbl	7600 RPM Chip	58% Left Max 51% Rear Max
2850	5.3 Cast Iron Block	Holley-4412 500 cfm 2bbl	7600 RPM Chip	58% Left Max 51% Rear Max
2580	Ford 302 Block	Holley-4412 500 cfm 2bbl	7600 RPM Chip	58% Left Max 51% Rear Max

(Any Engine not listed in above chart could possibly be certified for competition by the GSS)

Unlisted engines not in above chart that are allowed will have a base weight of 2900#'s with a 4412 2-barrel carburetor.

Unlisted engine packages will be handled on a case by case basis by GSS Officials.

Weight Options	Weight
Base Weight	See chart above
Solid Rear Axles with min of 1.125 O.D	-25
Steel Drive Shaft 3" minimum in dia	-25
GSS Certified 602 / 604 Crate Engine	-25
Stock Stub Chassis	-50
Oil filled/Ball Bearing Hubs	+25
Internal clutch transmission	+50
Ratcheting/Torque Sensing Rear End	NOT ALLOWED

17. COOLING SYSTEM

17A. Radiator mounted in front of engine, between frame horns.

17B. Fan protection required and overflow tank recommended.

17C. Water pump must be stock type in stock location. Electric water pumps are NOT allowed.

17D. Antifreeze is strictly prohibited and carries a **\$50 fine** if found. Fine will double per occurrence.

17E. Cooling system shall consist of any conventional system that employs the use of a standard radiator cap or caps. **THE USE OF ANY MANUAL HIGH PRESSURIZED COOLING SYSTEMS, EITHER WITH OR WITHOUT EXPANSION / SURGE TANKS IS STRICTLY PROHIBITED.**

18. ENGINE SECTION

GSS Officials retain the right to adjust weight rules to promote competition among motor combinations. All part numbers must remain on all engine parts & No engine parts may be composite.

18A. IGNITION SYSTEMS-All ignition systems must be 12 volts. Only one 12 volt battery may be used at any time, batteries must be securely mounted outside of driver's compartment. All cars must have battery disconnect switch located within reach when standing outside the car. No magnetos. All ignition systems must have an operational rev limiter system. Only one ignition box allowed in car at any time. Car may be wired for dual boxes but must have only one box in car while on track. Box must be in clear view, mounted on right side of dash with dials to right window opening. Crane/Fast Ignition and JMS-Daytona sensors CD1 units must be kept complete with plate, coil, and box as a unit. Ignition boxes may be switched by GSS officials from car to car or swapped with GSS house ignition boxes at any time, Must be able to remove in five minutes. Approved Ignition boxes; Crane/Fast Ignition Hi-6rc p/n 6000-6700, 6000-6701, JMS-Daytona sensors CD1 p/n 6000-6701K MSD 6,6A,6T,6AL,6ALN,6CT, MSD 6014CT must only be used with the cast iron block coil pack engine package. Crane/Fast ignition box must use PS92N coil only. Any unlisted ignition systems may be approved for competition following inspection by GSS technical officials. Ignition must not be mounted within the reach of the driver. All wiring inside driver's compartment must stay out of reach from driver. Adjustment tabs may be sealed by GSS Officials. Car side harness must match all factory connections per diagram below with no modifications to allow tech officials to test system. Teams will have 20 minutes to correct the wiring harness or face disqualification and/or fines. If you believe you have a problem please ask. Owner/driver must provide tools to remove part. Connector: the 6 wire harness must be 24" long maximum and have a female 6 pin, weather pack connector. Wiring of the system with a six pin weather pack approved style plug in.

a- Ignition switch 12v (small red)

b -Points pick-up (small white) brown gm boxes

c -Coil negative (small black)

d -Coil positive (small orange)

e -Green Wire to distributor

f - Purple Wire to distributor

18B. ENGINE LOCATION: GM engines must be located so that the center of the furthest forward spark plug hole is no more than 2" behind the front axle centerline. Ford and Chrysler allowed 4" engine set back. Wegner Automotive Research 5.3L only, must be used as produced. Maximum 3 1/2" set back. ALL Engines: Oil pan must not be lower than bottom of cross-member. Options to correct are add to bottom of cross-member or raise motor. Out of tolerance engine setback cars will be subject to a weight & points penalty & or fine.

18C. LIMITED CONCEPT ENGINE: Two valves per cylinder. No aluminum blocks or heads. GM & Ford - 362 CID maximum, Chrysler - 373 CID maximum. All engines must meet the following specifications regardless of manufacturer: Stock or stock replacement cast iron heads with factory valve angles. GM Bowtie numbers 14011058, 10134392, (casting number 14011034 and 12480034), World Products Sportsman II numbers 011150, 011250 & Dart Iron Eagle numbers 10110010-10220010 allowed. Ford 351N and 352N heads, World Products Windsor Sr. 053040 allowed. Chrysler 5249769, 4529446, **LA-X** heads. Casting numbers must be visible on all heads. Minimum combustion chamber 62cc, maximum 2.02- inch intake and 1.6-inch exhaust valves required. Flat top pistons required. A minimum of zero deck height required. 10.8 to one maximum compression ratio. Connecting rods must be magnetic steel. Rod journal minimum diameter 1.900". Oil pan minimum depth 6.5". A 3/4" NPT inspection hole in oil pan required. Inspection hole must be located in line with second or third rod journal of crankshaft, on either side of pan and above sump area (oil level). Hole in windage tray in line with inspection hole required. Valve spring retainers are the only titanium parts allowed. No radius edge lifters. Lifters must be able to rotate in their bores. No roller or mushroom cam/lifters. Maximum valve lift - .600" (measured at retainer). OEM style rocker arm mounting required. Firing order may not be altered. Ignition system may not be computerized, programmable or have memory circuits. No magnetos, crank trigger, multiple coil or programmable ignition systems allowed. Production type steel crankshaft with normal configuration counter weights. No dry sump or vacuum systems of any kind allowed. External single stage oil pump allowed on Ford engines. OEM type, mechanical fuel pump, in original location, required. Chrysler engines add 20 lbs. for CID over 362. Intake Manifold: Edelbrock Victor Jr. 2975 (GM), 2915, 2920 (Chrysler), 2921, 2980, 2981 (Ford). Plenum and port configuration must remain as produced. No adapters/ spacers between intake and heads. If Bee- Hive valve springs are used, the competitor will be required to switch to conventional style valve springs for post-race tech purposes

18D. INTAKE MANIFOLD: Intake manifolds Edelbrock Victor Jr. 2975 for GM, 2915 or 2920 for Chrysler, and 2921, 2980, or 2981 for Ford. Plenum and port configuration must remain as produced. No adapters/ spacers between intake and heads.

18E.EXHAUST SYSTEM (Non-Crate)-Headers allowed on all engines; No Try Y headers will be allowed. No merge collectors. A header will consist of all parts inclusive to the final exhaust pipes.

Mufflers are Mandatory and are not to be tampered with or hollowed out. Any car without mufflers will not race. Exhaust must exit behind driver and meet 100 decibels Maximum at 100 feet. All exhaust highly recommended to exit under car to meet this requirement. No one off or custom high dollar headers, **No** stainless, lightweight, or titanium allowed. All headers are subject to approval by GSS tech officials. Mild steel magnetic material headers are the preferred header type for use in all competition events. Exhaust that exits from door must be flush and must have door flange and mounted flush to door.

18F. GM 602 CRATE ENGINE: (P/N #19258602) Engine must be used as produced from factory; Maximum 2" set back. Motor will be allowed one Holley 4 bbl 650 cfm carburetor #80541-1(with no modifications) with no adapter plate or spacer. One .065 single paper gasket allowed. The 602 Crate Motor will use the Holley 4 bbl. 650 cfm carburetor with No stepped, 180 degree or Tri-Y headers. Crate engine must run stock style HEI distributor with coil in cap and a **maximum timing of 34 degrees**. MSD Soft Touch Rev Control Part #018-8728 or 8727CT with a maximum 6200 rpm chip required. Box must be mounted out of reach of driver. Maximum compression can never be greater than 9.2:1. All crate engines may not be altered from factory specs. Any evidence of tampering with engine components will result in disqualification, confiscation, fine, and suspension for balance of season. GSS Tech staff reserves the right to impound motors for inspection or dyno testing. No refreshing, buy new instead. Repairs allowed with prior management approval. No Ford or Chrysler crate engines allowed.

18G. GM 604 CRATE ENGINE: (P/N# 88958604 or 19318604) Engine must be used as produced from factory; Maximum 2" set back. Motor will be allowed one Holley 4 bbl 650 cfm carburetor #80541-1 (with no modifications) with no adapter plate or spacer. One .065 single paper gasket allowed. All crate engines may not be altered from factory specs. **Maximum timing is 36 degrees** and must use a 6700 RPM chip; maximum compression can never be greater than 9.75:1. Any evidence of tampering with engine components will result in disqualification, confiscation, fine, and suspension for balance of season. GSS Tech staff reserves the right to impound motors for inspection or dyno testing. No Ford or Chrysler crate engines allowed.

18H. UPDATED GM CRATE ENGINE: Crate engine with any or all of the following updates or any non certified/approved rebuilt crate engine will have a base weight of 2850lbs. Specific updates are; 1.6 rocker arms, Small Harmonic Balancer. Maximum compression can never be greater than 9.75:1. Maximum timing is 36 degrees, and must use a 6700 rpm chip. GSS authorized rebuilt crate engines must be done by a certified rebuilder.

18I. CRATE HEADERS: GM 602 Crate cross over header Schoenfeld 135CM2 Part#: 007135CM2; GM 604 Crate cross over header Schoenfeld 135CM Part #: 007135CM are recommended for competition; with a maximum collector size of 3". No Try Y headers will be allowed. No merge collectors. A header will consist of all parts inclusive to the final exhaust pipes. Exhaust must exit behind driver and meet 100 decibels Maximum at 100 feet. Mufflers are mandatory are not to be tampered with or hollowed out. No one off custom header allowed. Exhaust that exits from door must be flush and must have door flange and mounted flush to door. **Any car without mufflers will not race.** Max MSRP of header \$450.00

18J. REV LIMITING CHIP CRATE ENGINE:

The use of a Rev Limiting Chips will be used; GM 602 Crate will be limited to 6200 RPM's and GM 604 Crate engine will be 6700 RPM's. GSS may change chips at random and may check chips at any time. All wiring must be sealed. No unplugged wiring. All ignition boxes must be mounted on the passenger side, in plain view, and out of reach of the driver and all wires to the distributor must be run separately and not part of a bigger loom or wiring harness.

18K. LS 5.3L SPEC ENGINE- All LS 5.3 engines must add 40lbs of weight to engine block area; 20lbs of weight on each side of the block either bolted to the block or the inside or outside of the front stub in line with the center of the block. All LS 5.3 spec engines must be rev-limited to 7600rpm with a MSD/Crane type ignition box. Engine is subject to same inspection procedures as other engines. LS Spec Engines must use Holley 4412 500 cfm 2 bbl carb with 1" spec carb adapter plate manufactured by Wegner Automotive P/N#WA0349

19. CARBURETOR: The Holley Ultra Series is NOT Allowed.

19A. All Non-GM Crate Motors will use **Holley 4412 style 2bbl** approved carburetor.

19B. All GM 602/604 Crate Motors use Holley 650cfm 4bbl 4150 HP carburetor, part # 80541-1, All 4 barrels of Holley 650cfm must be fully operational at all times, no secondary's disconnected.

19C. The Holley Aluminum (Part#0-4412SA) 500 cfm carburetor is now approved.

19D. All carbs must pass all GSS gauges and specs.

19E. Double throttle return springs mandatory.

19F. Holley 4412 Carburetor Rework Guidelines: Body of Carbs: No polishing, coating, grinding, or drilling of holes allowed. Gasket surfaces may be machined for improved sealing. The choke may be removed, but all screw holes must be permanently sealed. Choke horn may not be removed. Boosters may not be changed including no additional holes. Height, size, and shape must remain standard and unaltered. Venturi area must not be altered. Casting ring must not be removed. Base plate must not be altered in shape or size. Butterflies: Must not be thinned or tapered. Screw ends may be cut even with shafts, but screw heads must remain standard. Throttle Shafts: Shafts must remain standard and must not be thinned or cut in any manner. Holley 4412 HP metering block is allowed but cannot have any additional fuel passages drilled and or plugged. Standard 4412 metering block may be drilled/plugged, but can only have a total of 3 fuel passages per side of block, must remain stock appearing for carb style, no aftermarket blocks permitted. Any attempt to pull outside air other than straight down through the venture is not permitted. Jets may be changed. No dial-a-jet devices. No

addition of any material, such as epoxy, may be added to carb or parts except to seal vacated external screw holes. Epoxy allowed on boosters of 4412-2 bbl. at main body only. GM 602/604 Crates Motors use Holley 650-HP P/N 80541-1 No modifications or epoxy on boosters and no adaptor plate allowed.

19G. No fuel injection systems of any kind allowed.

20. CARB ADAPTOR (SPACER) RULE: (THIS DOES NOT APPLY TO GM 602/604 CRATE ENGINE PACKAGES)

20A. 1-5/8" max thick w/gaskets. Original orientation required, adaptor may protrude into plenum of Intake Manifold by a Maximum of 1/4". Adaptors are one piece only. Tapered or Beveled Adapters Allowed.

20B. LS Spec Engines must use 1" spec adapter plate by Wegner #WA0349 (no stacking of gaskets)

21. AIR FILTER

21A. Air filter is mandatory to act as a flame arrestor.

21B. No additives allowed in air filter.

22. FUEL CELL, FUEL PUMP, FUEL

22A. FUEL CELL: A Fuel Cell is mandatory with a 22-gallon (U.S.) maximum capacity complete with a rubber style interior bladder recommended, full foam baffling inside and must have a functional roll over check valve ball and or safety flap system. Teams are responsible to verify that fuel cells and bladders are up to date and in good condition, *An in-line fuel safety shut off valve (OBERG #SV0828 or SRI #FPF- FSV)* at the point the fuel exits the cell and after fuel filter are highly recommended. The use of "U" style fuel cells or non-standard-shaped fuel cells are prohibited.

22B. FUEL CELL MOUNTING: Fuel cell must be behind rear axle and between frame rails with a minimum of ten inches (10") ground clearance, fuel cell height measurement based with chassis up on GSS certified 4" blocks front & rear, cars not meeting 10" ground clearance but with a minimum of 8" ground clearance will **add 10#'s** for the infraction and will be required to meet 10 inch minimum at any further competition events. If fuel cell height is below 8" you will not race. Fuel cell can is to be no closer than 2" to the back of the rear end. Fuel cell must be mounted utilizing a front and rear cross member configuration with a minimum 1" x 1" 0.095 wall thickness square steel tubing. Cross members must be bolted thru the frame or fuel cell mounting brackets that have a minimum thickness of 1/8 inch (0.125"). Cross member mounting bolts must be 7/16 inch grade 5 minimum with support washers. Strongly recommend 1/2 inch grade 5 minimum mounting bolts for fuel cell cross members to frame and or mounting tabs. All fuel cells must be protected with top and bottom frame support bars and the lower rear protection bar extending below fuel cell.

22C. Fuel Cell Can Containers made of 1/8 inch sheet steel are strongly recommended. All fuel cell cans must be magnetic steel with one-inch lip being a one piece design. Top cover must be made of magnetic sheet steel not less than 22 gauge (0.031" thick) and bolted to the bottom container with a minimum quantity of 14, grade 5, 1/4 inch bolts, with flat washers on top and lock nuts or lock washers and nuts on the bottom, cell must be banded on top both ways with two steel (1" x 1/8") straps in each direction. (No aluminum fuel cell top covers allowed period)

22D. Fuel Cell Protection Plates: Cars without a 1/8" thick steel fuel cell container are to be incased in a container not less than 22 gauge .031 thickness magnetic sheet steel and required to have full steel protection plates no less than 13 gauge (0.090 thick) mounted securely thru welding or bolting to the outside of frame rails on sides and rear in an approved manner to cover the entire height and width of fuel cell container used. Also required is a front protection plate between the fuel cell container front side and the rear end cover. This said plate must be full width and height of fuel cell container, no less than 0.090" thick magnetic steel or 0.125" thick aluminum and securely fastened in an approved manner to the front fuel cell container mounting cross member, cell must be fully banded the entire height and width of container and attached to the mounting plate. All fuel cell mounting and banding subject to GSS Tech Inspector approval. (No aluminum fuel cell top covers allowed period)

Add 10#'s for non-approved 1/8" steel fuel cell container.

22E. Fuel Lines must be Aeroquip type or equivalent; routing must be outside of cockpit and protected from damage.

22F. Fuel Filler must be accessed through deck lid; filler spout may be extended, but not connected to bodywork.

22G. Fuel: Pump gas only in crate engines or built engines may use racing fuel; 110 Octane maximum allowable race fuel, Fuel samples may be taken at any time and tested. Alcohol, nitro-methane, nitrous oxide, other oxygenating agents, or other additives and/or fuels that contain masking agents or oxygen are **not** permitted. Use of such substances or additives will result in immediate disqualification. **A variation of more than +/-0.3 in the Dielectric Constant (DC) reading from VP or Sunoco baseline 110 will be Illegal.** No icing or cooling of fuel system. **Ethanol (E-85) is not allowed.**

23. BATTERY: All ignition systems must be 12 volts. Only one 12 volt battery may be used at any time, Battery must be securely mounted ahead of rear axle and outside of driver's compartment away from fuel cell and lines. Battery disconnect switch required & must be located in center of driver compartment accessible to the safety team from the passenger side window.

24. ILLEGAL EQUIPMENT: No Data Logging gauges or Data recording/acquisition equipment are allowed. No computer or video analysis equipment of any kind allowed. No Super chargers; turbo charger; nitrous or other injection systems; pressure or electric fuel systems; dry-sump systems; external oil pumps; on board data gathering or timing devices, ABS units, traction control devices, of any kind are not allowed. No titanium, magnesium, carbon fiber or tungsten products. No digital gauges (including tach) no electronic monitoring computer devices capable of storing or transmitting information except memory recall analog tach. Cellphones, smart watches or bluetooth devices will not be allowed in racecar at any time. All wiring must be visible for inspection. All illegal parts are subject to confiscation.

25. RADIOS: All drivers must have a spotter in the designated spotter area during all racing events if utilizing radios. Spotter required identification of car number on back of his/her shirt.

26. RACEceivers: Raceceivers are mandatory for Race Director Communications frequency is 454.000

27. TRANSPONDERS: Transponders are Mandatory, and **located 8" forward from center of rear axle.** All competitors must have timing transponders on their car for the entire program including practice. Available for rent at event.

28. CAMERAS: Cameras allowed must point out. No Data logging Videos.

29. TEAM DRIVING: Not Allowed

30. CHAMPIONSHIP POINTS - will be awarded per your finishing position. If drivers are disqualified, points do not advance, only winner's purse is past onward.

31. LOCAL TRACK VISITING EXCEPTION: Cars from local neighboring tracks/series that have similar but differing rules, and/or similar performance, may be allowed to participate during the season in the interest of welcoming competition. These cars may be granted temporary eligibility status for one week at the discretion of GSS officials on a case-by-case basis for eligibility and rule book conformity.

32. TECH INSPECTION: All cars are subject to inspection ANYTIME before, during, or after a race; Officials reserve the right to disqualify cars, require changes, or impound illegal parts until the end of that race season. Any interference with any official(s) and his/her duties will result in an automatic disqualification, and/or possible suspension. Disqualification (except weight violation) is retroactive to ALL previous events competed in that race meet. Any driver/owner refusing to allow the track officials to inspect his or her car will lose points and money earned for the night. Driver must provide their own tools for inspection.

33. PENALTIES: See Below Late Models

WEIGHT	OFFENCE	POINTS	FINE
1-5 LBS LITE	ANY OFFENCE	-10 POINTS	-\$0
6-10 LBS LITE	ANY OFFENCE	-25 POINTS	-\$50
11 LBS & OVER LITE	ANY OFFENCE	DQ	DQ
LEFT SIDE %			
OVER 58.0%	ANY OFFENCE	DQ	DQ
TRACK WIDTH			
OVER 1/8" WIDE	ANY OFFENCE	DQ	DQ

34. DYNAMOMETER TEST: At the request of the Tech Staff any engine and or car can be required to be dynamometer tested to determine its compatibility with the intent of the rules. ASM will be the official dyno facility of GSS.

35. TEAR DOWN CLAIM: For a fee of \$1000 any Late model driver may request to have the head, intake, exhaust manifold removed for inspection for non crate motor engines. If found legal, \$700 is awarded to the one inspected with \$300 retained by the officials. If illegal, the fee is returned to the protester and the violator forfeits all money and points won that night. . Officials can require intake and heads be removed and inspected for compliance. If components are found to be illegal they will be confiscated and destroyed. If found to be legal the owner will receive \$300 allowance for gaskets.