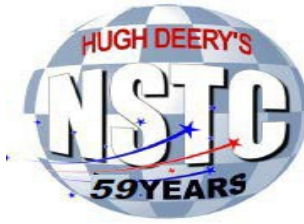




## 2024 UNIFIED SUPER LATE MODEL RULE BOOK



### 2024 Super Late Model Rules 8.9

**General:** These rules and regulations are designed to govern driver and crew member conduct during racing events. By participating in these events, all drivers are required to comply with these rules. While track or series makes no claim of guaranteed safety, these rules are enforced as a guide for the conduct of the sport. This is in the entertainment business. Drivers, Owners, Crew and Track 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. Officials may change any rule at any time in an effort to reduce the cost of racing, maintain equal competition, or improve safety.

**Procedural Rules:** It is the goal of track management to maintain the safest possible racing conditions for all drivers, fans & track personnel. Only safety crews and wrecker crews are permitted on the track in the event of an accident. Pit crew members are not permitted on the track. A driver may exit a car if requested by a safety crew member or if safety warrants in cases such as a fire or if car is upside down. Drivers are also encouraged to drop the window nets after an accident as a sign to approaching safety crew members that they are ok, especially in a multi-car situation to alert approaching safety crew members which drivers are in need of urgent attention.

**Rules Infraction Policy:** Management may suspend or fine any driver, team member, or car owner for violation of track rules, policies, or procedures. Management has right to confiscate any item that is in violation of the rules.

## **TABLE OF CONTENTS**

1. SAFETY EQUIPMENT .....	4
A. SEATS .....	4
B. SAFETY BELTS .....	4
C. FIRE SUPPRESSION SYSTEM .....	4
D. WINDOW NET .....	4
E. DRIVER'S ATTIRE .....	5
F. CARBON FIBER USEAGE .....	5
2. BODY .....	5
A. GENERAL & AERO .....	5
B. APPEARANCE .....	5
C. BUMPERS AND RIGHT SIDE DOOR BAR .....	5
D. SPOILER .....	6
E. AIR INTAKE/COOLING .....	6
3. TRACK WIDTH / WHEELBASE .....	8
4. CHASSIS .....	8
5. ROLL CAGE CONSTRUCTION .....	8
A. MAIN CAGE .....	8
B. RIVERSIDE DOOR PLATES .....	9
6. SUSPENSION .....	10
7. REAR END .....	10
8. SHOCKS / SPRINGS / SPINDLES .....	11
9. STEERING .....	11
10. BRAKES / BRAKE COOLING .....	11
11. TIRES .....	12
12. WHEELS .....	12
13. CLUTCH .....	12
14. TRANSMISSIONS .....	12
15. DRIVESHAFT .....	12
16. COOLING SYSTEM .....	12
17. WEIGHT / ENGINE PACKAGE COMBINATIONS .....	13
Engine-Base Weight Chart .....	13
18. ENGINES .....	13
A. GENERAL .....	13
B. ENGINE LOCATION .....	13
C. EXHAUST SYSTEM .....	13
D. IGNITION SYSTEMS .....	14
D. SEALED & CRATE ENGINES .....	14
A. SEALED .....	14
B. CRATE .....	14
20. 9 to 1 ALUMINUM HEAD ENGINES .....	15
A. ENGINE BLOCK .....	15
B. CRANKSHAFT .....	15

C.PISTONS .....	15
C. CONNECTING RODS .....	15
D. CAMSHAFT .....	15
E. CYLINDER HEADS.....	15
F. INTAKE MANIFOLDS.....	15
21. ACETYPE ENGINES (New Updated Cylinder Headis NOT Approved for Competition).....	16
22. GM604 CRATE ENGINE.....	17
A.GENERAL.....	17
B.UPDATEDGM CRATE ENGINE .....	17
CR EVLIMITING CHIP .....	17
D.CARBURETORG M 604 CRATE .....	17
E.CRATE HEADERS.....	17
23. SOUTHERNSUPER PARTS ENGINE (SSPE)Southern Super Parts Engine .....	18
B.SSPE CYLINDER HEADS .....	18
CS SPE MANIFOLDS.....	18
D.SSPE PISTONS.....	18
E.SSPE CAMSHAFT .....	18
F.SSPECONNECTING RODS.....	18
G. SSPE BLOCKS .....	18
H. SSPE CRANKSHAFT .....	18
I. SSPEOIL PUMP .....	18
J. OILPAN.....	18
24. LST ENGINE -UPDATED2024 .....	19
B.SHORT BLOCK ASSEMBLY .....	19
C CYLINDER HEAD AND RELATED ENGINE COMPONENTS .....	20
25. CARBURETORS .....	21
Carb Adapter Chart.....	21
26. FUEL SYSTEM .....	22
27. ELECTRONIC EQUIPMENT .....	23
28. CHAMPIONSHIP POINTS .....	23
29. TECH INSPECTION .....	24

## 1. SAFETY EQUIPMENT

### A. SEATS

- i. Aluminum or carbon fiber racing seat required. Full containment recommended. All driver seats must be manufactured by a recognized manufacturer of seat and safety equipment. Seats may be multi-layer aluminum, carbon fiber, carbon composite, or other if approved.
- ii. Shoulder supports on right and left sides of seat and head support on right are required. 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. 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.
- iii. Seat must be fastened to frame/roll cage with minimum 3/8" grade 5 bolts and oversized washers. Seat must be located to give adequate distance from driver's arm to door bars. Seat may not protrude outside 4 point or top cage halo. The area behind the driver's seat and in front of left rear trailing arm mount must 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.
- iv. 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.
- v. SFI 39.2 rated seats likely to be required in future years.

### B. SAFETY BELTS

- i. A minimum five-point harness system is mandatory. 6-point belts (double crotch strap) are recommended.
- ii. 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.
- iii. 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.
- iv. Anchor shoulder straps at point zero to 10 degrees below the top of the shoulder. Note: Preferred mount is as close to shoulder as possible.
- v. Belts must be anchored to roll cage or frame. Grade "5" bolts 1/2" min diameter required.

### C. FIRE SUPPRESSION SYSTEM

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

### D. WINDOW NET

- i. Left side driver window net is mandatory with a minimum size of 16" x 18". Construction must be ribbon web-type safety net with mechanical release. 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)
- ii. 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.
- iii. Mechanical release must be welded to the front or "A" pillar end of the bar.
- iv. Spring-loaded releases are not approved for competition.

## **E. DRIVER'S ATTIRE**

- i. Complete SFI-approved fire-retardant driving suit designed for racing along with fire retardant gloves, socks, underwear, and shoes required.
- ii. Eye protection and a Snell SA-2015 (SFI 38.1) or newer helmet required. Snell "M" or D.O.T helmets not allowed.
- iii. 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.
- iv. In all matters pertaining to safety, car owners, drivers and crewmembers must review and educate themselves in all safety standards. It is the responsibility of the car owners, drivers and crewmembers to install, wear and maintain all safety equipment as specified by manufacturer's instructions.

## **F. CARBON FIBER USEAGE-**

- i. Carbon fiber is approved for safety use only (seats, helmets & HANS Devices).
- ii. Carbon fiber is NOT allowed for dash, panels, duct work, bolts, brake ducks, brackets, braces, or any other parts.

## **2. BODY**

### **A. GENERAL & AERO**

- i. Five Star Next Gen along with Five Star and AR Original ABC, bodies are approved and must be mounted in accordance with the Five Star Referee specifications and allowances. AR Revolution Body is not permitted.
- ii. Original ABC body configuration rules apply, unless otherwise stated.
- iii. 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>
- iv. Five Star Bodies or flat 12-inch side vent windows only. Three front window braces and two rear window braces are required and must be approved.
- v. 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. Window tint of any kind will not be allowed on windows or spoilers.
- vi. No panels allowed to extend tops of doors. Right side door inner panel must drop down from the door and must be official approved.
- vii. 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.
- viii. Rub rails are discouraged and may only be used if they are polycarbonate.
- ix. Panning of nose, sides, windows, tail panels, etc. is not allowed. No louvers or vents in the fenders, doors, or quarter panels. No fins, vortex generators, vertical lips, wicker bills, or wings will be allowed.
- x. The dimension across the bottom of the rear window from corner to corner straight is 51-13/16"
- xi. No attempt to get any aero advantage will be allowed.
- xii. Titanium bolts, brackets, braces, are not allowed.

### **B. APPEARANCE**

- i. Numbers will be at least 18-inches high required on both sides and on the roof.
- ii. Roof numbers to be readable from the left side of car.
- iii. Six inch high numbers in top right corner of windshield also required.

### **C. BUMPERS AND RIGHT SIDE DOOR BAR**

- i. Steel Bumpers must be minimum 1-1/4 in OD, 0.065" wall, steel only.
- ii. Right Side Door Bar Assembly must be minimum 1 1/4" O.D. x .065 wall, steel only.

- iii. Aluminum bumpers (front or rear) allowed with a 25# weight penalty and must be .083 minimum wall thickness, Aluminum right side door bars are not allowed.

#### **D. SPOILER**

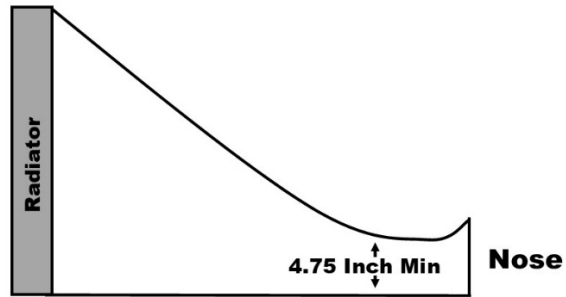
- i. **ALL SPOILERS** - Minimum 3/16" thick clear polycarbonate blade with no lettering. Minimum spoiler angle is 55 degrees. Rear bumper cover; top height 34-7/8" max at base of spoiler on centerline; max spoiler height is 41.5" on 4" blocks. Rudders or forward mounted brackets will not be permitted.
- ii. **ORIGINAL ABC BODY SERIES**-A maximum width of 60" measured across back of spoiler and maximum blade height of 6.5". 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; maximum spoiler height is 41.5" on 4" blocks. Rudders or forward mounted brackets will not be permitted.
- iii. **ABC FIVE STAR NEXTGEN BODY**- A maximum width of 64.5" measured across back of spoiler and maximum blade height of 6.5". 90° SPOILER 11002-47389 70° SPOILER 11002-47387. Maximum spoiler height is 41.5" on 4" blocks. Rudders or forward mounted brackets will not be permitted.
- iv. A one-piece centerline template will be used on the ABC First generation (2004-current).
- v. Next Gen approved body will use the 2 pc centerline template.

#### **E. AIR INTAKE/COOLING**

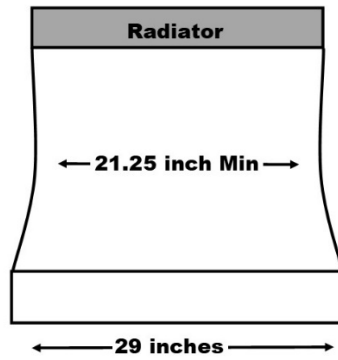
- i. Only ABC approved manufacturers' mesh screen may be used for the radiator opening in the nose. Minimum of 3/16" stainless mesh
- ii. Standard opening for the grill screen area as approved for ABC manufacturers' production. No modifications allowed.
- iii. No taping of the nose grill screen opening unless otherwise specified by officials for an event.
- iv. 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.
- v. Air Filter Maximum diameter 14" x 4" tall.
- vi. 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.
- vii. 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 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 the sides of air box but may not extend into interior of duct work.
- viii. 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.
- ix. No Carbon fiber allowed in any ducting.
- x. 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. See pictures for clarification on page 7.

xi. APPROVED SIZING FOR NOSE TO RADIATOR AIR DUCT BOX

**SIDE VIEW**



**TOP FRONT VIEW**



**APPROVED FIVE STAR & ARAIR DUCT MANAGEMENT PRODUCTS**



### **3. TRACK WIDTH / WHEELBASE**

- i. Maximum tread width front and rear is 66" measured center to center of tires and measurement taken as car rolls thru tech with maximum nose height of 8", no touching or crushing of suspension to meet width measurements.
- ii. Wheelbase 103" plus or minus 2".
- iii. The Five Star Referee is the official device of measurement.

### **4. CHASSIS**

- i. Tube stub style chassis only.
- ii. 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.
- iii. Absolutely no straight blunt ended martin bars are allowed.
- iv. Tow hooks on front and rear required.
- v. Weight tray panning may start at foot box and only run to back of driver's area (cockpit) and must remain inside frame rails
- vi. All chassis/frame construction must be approved for competition and meet safety standards.

### **5. ROLL CAGE CONSTRUCTION**

#### **A. MAIN CAGE**

- i. The following is the minimum specification requirements for roll cage construction approved for competition.
- ii. Officials reserve the right to sonic test any or all, structural chassis members at any time during an event.
- iii. Drilling holes to lighten any part of the body, chassis, suspension or bolts is not permitted.
- iv. 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 .083" (.120 recommended) 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 and maximum driver's tub length is 52.5" and the maximum width of frame is 53. A minimum of 2" x 3" x .083" wall steel tubing of solid continuous metal for front clip rails. Rear clip and kick-up rails need to be a minimum of 2"x2" square x.083" wall steel tubing of solid continuous metal. 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.
- v. 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 tech inspectors.



## **B. DRIVER SIDE DOOR PLATES**

- i. Left side driver support bars and plates are mandatory, no drilling for lightning allowed
- ii. No material substitution is permitted.
- iii. All support bars and plate installation is subject to approval. Solid filled from A-B post.
- iv. All plates must be minimum .090 Steel, sonic testing will be used.
- v. See options listed below Plan A or Plan B
- vi. 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.
- vii. 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.

***Illustration pictured below.***



## 6. SUSPENSION

- i. Coil over type or conventionally mounted 5" spring type suspension only.
- ii. No computer or hand operated controlled suspension.
- iii. No titanium, Inconel, exotic materials, parts, or components allowed anywhere on racecar.
- iv. No hollowed-out bolts of any kind on suspension components.
- v. 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)
- vi. 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. No driver adjustments other than one adjuster for brakes.
- vii. Rear suspension must be Non-independent, live axle type only.
- viii. 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.
- ix. Lift bar suspensions will be permitted. No 5th Coil Suspensions, No birdcage set-ups of any kind (3 or 4 link). No part of the trailing arm mounting may freely rotate around the rear end, must be welded or bolted in place. No cantilever, wishbone, or torsion type suspensions maybe used. No Aluminum Fabricated A-Frames allowed.

## 7. REAR END

- i. Rear ends may be quick-change, min 8 inch ring gears, with full-floating hubs or 9-inch Ford. Quick-change rear ends must have spur gears out the back cover only.
- ii. No open tube rear ends permitted.
- iii. Aluminum tubes allowed on quick-change, must add 5 lbs. for each tube.
- iv. Material used for rear end section is at the discretion of the team, hub pins must be steel.
- v. Max rear camber is + or - 1 degree measured w/the rear axle level.
- vi. Wrap-up axles allowed. **Minimum outside diameter allowed .940**
- vii. No titanium axle shafts.
- viii. Spool Type or Detroit Locker (ratchet type) allowed, add 25#'s for ratchet type. **A Sunset policy on the Detroit Locker is in effect, compliance date of April 1, 2025 has been set.** Max MSRP \$819.95.
- ix. Torque Sensing Gleason Torsen type differential are NOT Allowed
- x. All plugs (drain, inspection, etc.), must be safety wired, failure to comply will result in \$100 fine.

## **8. SHOCKS/ SPRINGS/SPINDLES**

- i. Maximum triple adjustable shocks allowed and only (1) one shock, (1) steel coil spring and (1) Steel bump spring per wheel.
- ii. No Inerter-style dampeners, a.k.a “J dampeners” shocks allowed.
- iii. No electricity to the shock, hydraulic spring perches or air shocks allowed and no shock may be adjusted by driver within driver’s compartment.
- iv. 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.
- v. Heating pads, cover and/or blankets will not be permitted over the shock absorbers.
- vi. Shock bump stops will be allowed.
- vii. Spindles must be Steel. (Exception: approved Coleman Spindle)

## **9. STEERING**

- i. Quick release steering wheel required.
- ii. Steering shaft must incorporate a minimum 2 U-joints and deflect force away from driver.
- iii. Collapsible steering shaft recommended.
- iv. No electric power steering units. No titanium steering components or hardware allowed.

## **10. BRAKES / BRAKE COOLING**

- i. 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.
- ii. Maximum 4 piston brake calipers with MSRP of \$800 Maximum.
- iii. Fixed mounted or floating rotors only. No carbon fiber rotors. Only steel rotors are allowed (no titanium).
- iv. Brake fluid circulators permitted. Liquid or gas cooling not permitted.
- v. All air for brake ducting and electric blower fans for front wheels only must be taken from nose or radiator air box only, may not pull air from under car at any time. Maximum of (1) one duct hose and (1) electric blower fan per each front wheel. Air may only be directed to the brake rotors. Air may not be blown or forced onto the tire or bead. Maximum MSRP \$349.95 per blower fan, Carbon Fiber fans are not allowed.
- vi. No hoses or holes through the interior sheet metal for drawing air to the rear brakes. Air ducts or hoses or electric blower fans to the rear brakes will not be permitted.
- vii. Brake wheel fans that fit between the hub and wheel are allowed, one per hub only.
- viii. 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.
- ix. Electronic wheel speed sensors, power assisted braking systems or brake actuators will not be permitted.
- x. Titanium brake components and or brake hardware is not allowed.
- xi. The Coleman brake kill switch is highly recommended.

## 11. TIRES

- i. HoosierTires ST-1 Lefts and ST-2 Rights. Unless otherwise indicated on entry blank.
- ii. Alteration of a tire(s) and is not permitted and defined as changing the physical and/or chemical composition of the tire by cutting; grinding; buffing; warming; cooling or the use of chemicals whereby the tread area or the interior surfaces of the tire is changed from the manufacturer's specifications; alteration or defacing of tire identification numbers; labels; code numbers or serial numbers. Any violation of this nature causes the tire(s) to be deemed ineligible for competition. Tires may be checked at any time.

## 12. WHEELS

- i. Steel approved 5 lugs wheels only, must be 15x10. 15" diameter x 10" width
- ii. Wheel must be 5x5 or wide 5 pattern only.
- iii. Absolute Minimum wheel weight 16 lbs. Steel wheels only permitted.
- iv. Bleeder and/or pop-off valve devices are not permitted, wheels will be inspected for hidden bleeders including the valve stems.
- v. Wheel Studs and Spacers: A minimum of five (5) lug nuts per wheel, minimum 0.625-inch (5/8") 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. Wheel spacers, if used, must be made of steel or aluminum and a minimum 6.75 inches in diameter. Shims are not permitted when mounting wheel studs to hubs.

## 13. CLUTCH

- i. 5.5 inch or larger will be the only clutch allowed. **A Sunset policy on the 4.5" clutch is in effect, compliance date of April 1, 2025 has been set.** MSRP \$1600.
- ii. Absolutely no carbon fiber or poly clutches allowed.
- iii. Bell housing must have an opening at bottom (to allow a clear view of clutch).
- iv. Standard material clutches only allowed. No Slipper or Centrifugal clutches allowed.

## 14. TRANSMISSIONS

- i. Full standard type transmission or Bert or Brinn style transmissions are allowed.
- ii. No bottom load or quick change transmissions allowed. Automatic transmissions will not be permitted.
- iii. Must have two forward and 1 reverse working gears minimum.
- iv. Must be self-starting.
- v. All plugs (drain, inspection, etc.), must be safety wired, failure to comply will result in \$100 fine.

## 15. DRIVESHAFT

- i. The drive shaft shall be made of steel or aluminum only. Carbon fiber not permitted.
- ii. 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.

## 16. COOLING SYSTEM

- i. Radiator will be mounted in front of the engine, between frame horns.
- ii. Fan protection required and overflow tank recommended.
- iii. Water pump must be stock type in stock location. Electric water pumps are NOT allowed.
- iv. Antifreeze is strictly prohibited, failure to comply will result in \$100 fine.

**17. WEIGHT/ENGINE PACKAGE COMBINATIONS.**

- i. Allcars will be allowed up to a maximum left side weight percentage up to 58.0%
- ii. Weights include driver, race ready with fuel on board.
- iii. All lead weights must be painted white, with the car number painted on each individual piece.
- iv. All lead weights must be securely fastened with grade five ½ bolts minimum with washers and lock nuts. Any loss of weight is a fine of \$10 per pound or \$100 Minimum. No Tungsten or similar weight allowed! All weight must be in solid blocks.
- v. Fuel allowance for heats and features is one pound per lap on 3/8 mile or larger tracks and half pound per lap on 1/3 mile and smaller tracks.

Engine-Base Weight Chart (Unlisted engine packages will be handled on a case by case basis, call ahead)

Weight	Approved Engines	Carbs Allowed	RPMChips	NOTES
Track Specific Call Ahead	GM Certified 604 Crate	Holley 650cfm 4bbl 4150 HP part # 80541-1 or #80541-2	Alltracks w/6700Chip	Non-Certified or updated 604 crate weight 2750
2700	LLM Concept Iron Head & Block Only	Holley-4412500cfm 2bbl	Alltracks w/7800Chip	
2725	Chevy & Ford ACE	Holley-4412500cfm 2bbl	Alltracks w/8000Chip	½ Mile & Larger Tracks Check Entry Blank for Event
2750	Wegner 5.3L sealed	Holley-4412500cfm 2bbl or Holley 650cfm 4bbl	Alltracks w/7600Chip	
2750	Hamner, McGunegill, LST 6.2L	Holley-4412500cfm 2bbl	Alltracks w/7600Chip	
2750	SSPE & Wegner 6.2L sealed w/distributor	Holley-4412500cfm 2bbl	Alltracks w/7800Chip	
2750	9:1 / Wegner 6.0L	Holley-4412500cfm 2bbl	Alltracks w/8000Chip	

**18. ENGINES**

**A. GENERAL**

- i. Officials retain the right to adjust weight rules to promote competition among motor combinations.
- ii. All part numbers must remain on all engine parts. No carbon compacted blocks. No engine parts may be composite.

**B. ENGINE LOCATION**

- i. All GM cast iron, LS Style, Ford, & Mopar engines must be located so that the centerline of the most forward spark plug hole center is no more than 4" rearward of the centerline of the front axle center (Center of spindle). All Set-backs will be the same. The referee will be used to determine the center of the axle center line.

**C. EXHAUST SYSTEM**

- i. Mufflers are Mandatory and are not to be tampered with or hollowed out.
- ii. Sound level must be less than 100 db. Must meet local & county ordinance requirements where measured.
- iii. Exhaust must exit behind driver. It is recommended to exit exhaust under car to help sound requirements.
- iv. Exhaust that exits from door must have door flange and flanges must be mounted flush to door.
- v. Any collector may be used without a cone style insert. No lightweight, Iconel or titanium parts allowed
- vi. Stainless steel headers allowed.

#### **D. IGNITION SYSTEMS**

- v. All ignition systems must be 12 volts.
- vi. 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.
- vii. All cars must have battery disconnect switch located within reach when standing outside the car.
- viii. 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.
- ix. 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 officials from car to car or swapped with "house" ignition boxes at any time, Must be able to remove in five minutes.
- x. Ignition boxes approved: JMS-Daytona sensors CD-1 kit (#6000-6701K) Crane Cams/FAST Ignition, HI-6RC (p/n 6000-6700) PS92N Coil (p/n730-0192), and Ignition Tray (p/n 6000- 6363P). Or complete ignition kit (p/n 6000-6701). Must be mounted as shown and also not within the reach of the driver .All wiring inside drivers compartment must stay out of reach from driver. Adjustment tabs may be sealed by Officials. Car side harness must match all factory connections per diagram below with no modifications to allow tech officials to test system. MSD Ignition and others are allowed, provided they are wired correctly for the use of a CRANE IGNITION tester. LST MSD (p/n 6014CT) mandatory for use with LST engine package.
- xi. 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. 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

#### **19. SEALED & CRATE ENGINES**

##### **A. SEALED**

- i. Approved Sealed engines from McGunegill, Hamner by PME, may be used.
- ii. If necessary, officials may add or subtract weight to ensure fair competition. Any tampering of seals or established construction of these engines is grounds for immediate disqualification.
- iii. The maximum RPM is the series mandated 7600 for these engines. Rev limiting device must always be operational with RPM Dials securely covered. No lightening of engine blocks.

##### **B. CRATE**

- i. Crate engines may also be used. Officials may add or subtract weight to ensure fair competition. Cars utilizing crate engines must use the engine, carb and ignition specifications specified.

## **20.9 to 1 ALUMINUM HEAD ENGINES**

### **A. ENGINE BLOCK**

- i. Must be cast iron.
- ii. No carbon composite or light weight blocks allowed.
- iii. Must be stock appearing.

### **B. CRANKSHAFT**

- i. Standard steel type only.
- ii. Minimum allowed weight of 38 lbs.
- iii. Stock angle crank shaft allowed.

### **C. PISTONS**

- i. No part of piston may protrude above the top of cylinder.
- ii. 9 to 1 aluminum headed motors will have a 9.5 to 1 compression ratio (a ratio of 9.51 to 1 or higher will not be allowed).
- iii. Maximum engine displacement of 362 c.i. and minimum 347 c.i. aluminum headed motors may use dished or inverted dome pistons.

### **D. CONNECTING RODS-**

- i. Only approved steel rods are allowed.
- ii. No titanium, aluminum, graphite rods or stainless steel are allowed.

### **E. CAMSHAFT-**

- i. Only steel push rods (titanium, aluminum or graphite are prohibited).
- ii. 9 to 1 aluminum headed engines are allowed roller cams and rev kits.

### **F. CYLINDER HEADS-**

- i. All cylinder heads must be approved by officials and all modifications must be submitted to the officials before any proposed modifications will be approved.
- ii. All cast in part numbers must remain unaltered.
- iii. Painting and /or coating of the heads will not be permitted.
- iv. No 18-degree GM heads. Heads that are already approved are on file with the Officials.
- v. All other heads must be approved prior to any competition by Officials.
- vi. For all 9.5 compression motors the cylinder heads must be acceptable to officials and meet the following requirements: Only steel or titanium valves will be permitted. Only magnetic steel valve springs will be permitted and only 2 valves per cylinder will be permitted, there are no valve size restrictions. Internal polishing and porting will be permitted. Spark plug holes must remain in stock location. Valve angle must remain within 2 degrees of stock angle; valves must remain in the stock location in relation to the cylinder bore center line.

### **G. INTAKE MANIFOLDS-**

- i. No fabricated intakes. Intakes must be made of aluminum.
- ii. Only one flat gasket with maximum of .120 may be used between intake manifold and cylinder head.
- iii. No spacer or wedge type gaskets allowed.
- iv. May be polished and ported. Directional devices will not be permitted inside the intake manifold. Air holes will not be permitted to be opened in the intake manifold.
- v. Painting and /or coating of the intake manifold will not be permitted.

## **21. ACE ENGINE**

**A. Brodix spec ACE cylinder heads** must be unmodified, stock out of box. Machining, cutting, grinding, abrasive blasting, use of chemicals, or any alterations to change or alter the cylinder head or intake Manifold from its 'as cast' state is prohibited. Valves 11/32 valve stem or 5/16 valve stem may be used. No titanium valves allowed. All valve spring sizes must be 1.55 max. No shaft rocker arms allowed except on Mopar engines. The use of Mopar ACE Engines has been allowed. Steel or titanium valve spring retainers are permissible. Maximum 4 stage oil pump. May have one extra water line per head. Valve job may be blended into combustion chamber 3/8 inch from seat. Any valve bowl porting under valves not allowed.

### **B. ACE Engine Manifolds**

Any production type intake manifold allowed - provided it is readily available to all competitors from local race part suppliers. Maximum height of manifold is 7.25" (including any carb spacer and gaskets) the manifold height will be measured from the base of carb to top of cylinder block. Only one flat gasket with a maximum of .120 may be used between intake manifold and cylinder head - no spacer or wedge type gaskets allowed. No additional material may be added to manifold. No grinding or polishing of any part of the manifold -except you may match port the runners a maximum of 1".

### **C. ACE Engine Pistons**

Flat top pistons only - no part of piston may protrude above top of cylinder. (Maximum) compression ratio 10.5 to 1 (10.510 is illegal). Maximum engine displacement for GM and Ford is 362 ci. Dodge will be 364 ci. And minimum 350 ci. For GM, 346 ci. For Ford.

### **D. ACE Engine Camshaft**

The max lift on any roller cam is .625. Duration rule is 270 at 50 thousandths. No mushroom type lifters. Inlayed cams are prohibited. The maximum rocker ratio is 1.6 to 1. Rev kits of any type are prohibited. Only steel push rods (titanium, aluminum or graphite are prohibited). No roller bearing camshaft journals. Magnetic steel lifters, no ceramic.

### **E. ACE Engine Connecting Rods**

Only steel rods allowed. No titanium, aluminum, graphite or stainless steel. Rods using 3/8" bolts are allowed.

### **F. ACE Engine Blocks**

Must be standard factory production cast iron. (Only 010 or bow-tie approved). No aluminum blocks permitted. No altering of engine block permitted. Absolutely no grinding or lightening of blocks. The use of aftermarket blocks will be allowed in Ace engines. The engine builder must be on the approved engine builder list. No big bore short stroke ace engines will be allowed. No carbon composite or light weight blocks allowed.

### **G. ACE Engine Crankshaft**

Standard steel type only, minimum allowed weight of 43 lbs. (or stock type for block used) stock angle crankshaft allowed. No Honda journal crankshafts. Stroke 3.400 min to 3.500 maximum. LS firing order may be used. Minimum 1.980-rod journals or any under sized journals under factory dimensions.

### **H. ACE Inspection**

A 1.5" plug must be installed in the oil pan for inspection purposes. This hole must be directly under or side of the rod journal. If a windage tray is used, a hole must be provided in line with the hole in the oil pan. Cylinder head removal after any race may be required for inspection purposes.

**I.** No engine part may be composite. All part numbers must remain on all engine parts.



## **22. GM 604 CRATE ENGINE**

### **A. GENERAL**

- i. (P/N# 88958604 or 19318604) The 604 Crate Motor will be allowed one Holley 4 bbl 650 cfm carburetor #80541-1 or #80541-2 (with no modifications) One .070 single paper gasket allowed. All crate engines may not be altered from factory specs 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. Tech staff reserves the right to impound motors for inspection or dyno testing. 604 Crate engine may use 1-5/8" max thick w/gaskets. Original orientation required, adaptor may protrude into plenum of Intake Manifold. Adaptors are one piece only. Tapered or Beveled Adapters allowed with 75# weight penalty. No Ford or Chrysler crate engines allowed. Must be used as produced from factory with up to 4" maximum set back. Motor will be allowed one Holley 4 bbl 650 cfm carburetor #80541-1 or # 80541-2 (with no modifications) and one (1) .0625-inch (1/16") or smaller flange gasket allowed with no adapter plate or spacer. All crate engines may not be altered from factory specs. Any non-certified/approved rebuilt crate engine will weigh 2750lbs. Weight adjustments may be made to retain competitive balance.

### **B. UPDATED GM CRATE ENGINE**

- i. Crate engine with any or all of the following updates or any rebuilt crate engine will have a base weight of 2750lbs. Specific updates are; 1.6 rocker arms, Small Harmonic Balancer. Maximum compression can never be greater than 9.75 to 1. Maximum timing is 36 degrees. Authorized rebuilt crate engines must be done by a certified rebuilder. Weight adjustments may be made to retain competitive balance.

### **C. REV LIMITING CHIP**

- ii. The use of a 6700 Rev Limiting Chip will also be used. Officials 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.
- iii. Noncompliance to any of the above statements will void you from having a Certified Engine and the weight for a Certified Engine

### **D. CARBURETOR GM 604 CRATE**

- i. Holley 650 CFM 4150 HP carburetor, part number 80541-1 or 80541-2 Carburetor must be securely fastened to the intake manifold and fully operational of all 4 barrels and include one (1) .0625-inch (1/16") or smaller flange gasket. Drop-in spacers, alteration, physical changes, machining, re-shaping or tampering with any part of the original parts, internal or external, is prohibited. Following is a listing of tuning and replacement parts permitted for use on the Holley 4150 HP Carburetor. Only genuine Holley replacement parts are permitted and must match exactly parts replaced.
- ii. a. Jets b. Bleeds c. Needle and Seat d. Emulsion bleeds e. Power Valves f. Accelerator pump nozzles g. Accelerator pump cam h. Floats include all offered by Holley for the HP 4150/650 CFM Carburetor i. Floats maybe modified/angel cut. The use of any type Epoxy on the Holley 650 CFM 4150 HP carburetor, part number #80541-1 or #80541-2 is prohibited. Coating of any type or the use of coatings on the Holley 650 CFM 4150 HP carburetor, part number #80541-1 or #80541-2 is prohibited. Double return springs required.

### **E. CRATE HEADERS**

- i. Any header with MSRP of less than \$499.00 maybe used. No Try Y headers will be allowed. No merge collectors. A header will consist of all parts inclusive to the final exhaust pipes.
- ii. Exhaust must exit behind driver and meet 100 decibels Maximum. Mufflers are mandatory are not to be tampered with or hollowed. Any collector may be used without a cone style inserts. 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.

## **23. SOUTHERNSUPER PARTS ENGINE (SSPE) Southern Super Parts Engine**

### **A. GENERAL**

- i. May Be Claimed for \$24,000 undressed + \$500 fee. Anyone on the lead lap can claim an engine from someone finishing ahead of them.
- ii. Claim must be in writing with cash and presented by a Crew Chief or Driver or Owner to Head Tech Inspector within 10 minutes after completion of the feature event. Spite protest or protest made on behalf of someone else will not be honored. Failure to honor claim can result in penalties up to fines & suspension. Track and or Series reserves right to reject claim.

### **B. SSPE CYLINDER HEADS**

- i. Listed Brodix Cylinder Heads only. Heads may be surfaced to achieve proper compression ratio. Absolutely no other work of any kind will be permitted to the intake ports, exhaust ports, or combustion chambers. Ford part #: SP STS T-1 F STD 225-SSPE. Must retain minimum valve angle of 20°. Chevy Part #: SP STS T-1 STD 227-SSPE. Must retain min. valve angle of 21°. Multi-angle valve job permitted. Absolutely no blending of valve job below valve seat permitted. Chamber must retain shape 3/8" above valve seat. Minimal blending due to multi-valve jobs permitted. Maximum valve size: Intake 2.08", Exhaust 1.60", Stem size 11/32". Intake valve may be titanium or stainless steel. Exhaust must be stainless steel. No Titanium valve springs permitted. Maximum MSRP \$650.00 per set. Titanium retainers permitted. Lock angles not specified.

### **C. SSPE MANIFOLDS**

- i. Intake must remain stock. Absolutely no match porting or blasting of any kind permitted. Slotting of bolt holes, water lines and matching of sides allowed. Ford part #: Edelbrock 2928, 2929, or 2934 only. Chevy part#: Edelbrock 2814 or 2892 only.

### **D. SSPE PISTONS**

- i. Maximum Engine displacement is 362 cubic inches. Maximum compression ratio is
- ii. 11.5:1 with +.5 tolerance. Any flat top piston permitted with 927 wrist pin (no titanium) and .043 x .043 x 3mm ring package only. Pistons must not extend out of the top of engine block. Max MSRP \$1500.00

### **E. SSPE CAMSHAFT**

- i. Camshaft must be Competition Cam Part #: 21151712. Camshaft must be installed on 104° intake centerline +/- 1°. Roller lifters Max MSRP \$1000 per set. Maximum lift of .715" while using
- ii. 1.6 rockers checked at valve with zero lash. Max 1.6 rocker arm MSRP \$1650.00 per set. Magnetic-type push rods only. No keyway guided lifters permitted.

### **F. SSPE CONNECTING RODS**

- i. Connecting rods: Minimum rod journal size 1.850". Absolutely no piston-guided rods permitted. No titanium rods permitted. Minimum rod weight 540 grams.
- ii. Max MSRP \$1800.00 per set.

### **G. SSPE BLOCKS**

- iii. Cast Iron engine blocks only. No lightened blocks.

### **H. SSPE CRANKSHAFT**

- iv. Crankshaft must have a minimum weight of 40 pounds (with front timing pulley or sprocket). Minimum main size Chevy 2.300/ Ford 2.250. Max MSRP \$2400.00

### **I. SSPE OIL PUMP**

- v. Maximum 5 stage dry sump oil pump permitted, Max MSRP \$1700.00.

### **J. OIL PAN**

- vi. Oil pan must have 1" inspection hole. Absolutely no sectional pans permitted. Open box pans only (NO windage tray / scrapers etc.) Max MSRP \$850.00.

### **K. IGNITION SYSTEM**

Refer to Section 18D. Absolutely no crank trigger pickups permitted in SSPE.

## **24. LST ENGINE - UPDATED 2024**

### **AG GENERAL ADVISEMENTS**

- i. Any builder may build this engine package. This will be a strict build on many parts. Only listed parts may be used. Furthermore, any builder caught changing, modifying, or defacing any part of these rules will lose the right to build such engine package and other packages of same builder will add 25 pounds to base weight until engine is ok'd by tech official (s).
- ii. An inspection fee will be assessed to inspect engines from this builder after infraction found. Parts for this engine package are to be used as shipped. No parts may be changed without the approval of Tech Officials. All part numbers for each build will be on file at the track office and a copy always carried with team (owners). No part numbers on any part may be removed. Fines and others may be issued. Any part, bolt on or internal may be inspected, removed, or confiscated at any time.
- iii. This package will have an electric fuel pump mounted in a safe place; fuel cell mounted is recommended. It will have an oil pressure cut off switch for fuel pump installed and working at all times. No override switch for fuel pump allowed must be controlled by block pressure switch only.
- iv. All other engine rules for all engines will remain in force except for crank fire ignition and ignition box rules. No parts of the package may be lightened. Any form of circumventing these rules to be an advantage will not be tolerated.
- v. Standard LS firing order is the only firing order that may be used. This engine package will be sealed by said builder of choice and will remain their responsibility and control until seals are removed by another builder, tech official, or sanctioning body. If a change of builders is in order it must again be registered to the officials by the new builder. Will need block numbers, builder, and owner of said engine along with complete parts list of build. All seal numbers will also need to be listed on paperwork. Parts sealed Heads, Pan, and front Cover.
- vi. Also the intake of this package does not carry any water and may be removed for easy cylinder head inspection at any time. Total time do this is less the 10 minutes even when hot. So please understand that when mounting wiring and others in/on intake manifold.

### **B. SHORTBLOCK ASSEMBLY**

- i. GM 6.2 Factory Block number Chevrolet 12584724/12621766 casting numbers. No cutting, grinding defacing other than on cylinder heads to deck block as needed. Bore 4.080 Maximum. Stroke 3.622.
- ii. Compression ratio 11 to 1 Maximum 11.5. Cubic Inch 376 Maximum.
- iii. Any cast or steel crank, min 49 lbs, max retail price \$950.
- iv. Rods MSRP of \$1100.00 per set maximum. Size is 6.125 for length. Width 2.225. Minimum Weight 600 grams 1% variance in weight. Must be magnetic steel rods.
- v. Pistons MSRP of \$800.00 maximum. Pin minimum weight 100 grams. Minimum weight is 450 grams. Rings 3 only allowed 2mm, 1mm, 1mm minimum.
- vi. Camshaft MSRP maximum \$400.00. Maximum Lift .375.
- vii. Oil Pan Kevco LS 101 or Champ LS 1155 only.
- viii. Front Cover GM part number 12600326 only. Rear Cover GM part number 12639250 only.

### **C. CYLINDER HEADS**

- i. Heads (must be ported from Lingenfelter) With CNC porting for LST, intake runner volume 275cc, exhaust runner volume 93cc. Jim Goble Ex. 1003. L92/LS3 No other grinding or port matching is allowed as from Lingenfelter.
- ii. Decking allowed to get proper compression ratio. No angle milling. Heads may be bought direct and sent to have porting done. Must be GM castings 821, 823, 1771, 4863, 5364, and 2716 only. No cutting below valve seat or bowl cutting. Valves Chevrolet part number Intake 12569427 Stainless only.
- iii. Exhaust 12582719 Stainless or Ferrea Exhaust F6233 allowed. Any style valve job may be used. No titanium valves permitted.
- iv. Valve springs maximum cost 300.00 Maximum diameter 1.328
- v. Valve keepers, titanium allowed.
- vi. Rocker arms GM preferred 1.7 ratio. Aftermarket 1.7 allowed. Lifters can be adjusted solid.

### **D. INTAKE MANIFOLD**

- i. Holley part number 300-131 or 300-131b only. As cast no machining, matching, grinding or blasting. No adding any material to floor or changing anything from the stock configuration.

### **E. CARB AND SPACER PLATE**

- i. Holley 2BBL part number 4412 only. All rules apply as normal for carburetor. Spacer plate Wehrs Machine part number WM 206100 Only.

### **F. HEADERS**

- i. Schoenfeld #136VYLS3 or equivalent.

### **G. WATER PUMP**

- i. GM part number 89018053 or stock Napa type replacement only. Front Dress 2002 Camaro Stock.

### **H. ALTERNATOR/POWER STEERING**

- ii. Any alternator permitted.
- iii. KRC Power Steering Pump part number 10096000 only.
- iv. Pulley KRC part number 50219600 only.

### **I. OIL PUMP**

- v. Oil pump 3 stage only.
- vi. Must be under MSRP of \$1200.00

### **J. IGNITION SYSTEM**

- vii. MSD box part number 6014CT only. With tech port. Maximum RPM is 7600 RPM. MSD coil part number 8286 or stock replacement truck coil or stock GM truck coil part number round or square 19005218 8104577300. Any Spark Plug and Plug Wire allowed. GM harness or MSD harness to MSD box must be used. GM part number 12579355 or MSD (part number not assigned yet) No Wires maybe cut or added to the harness or in or out of brain box. All coils and wires must be accessible at any time. Tech port must remain accessible at all times, All engines will be sealed by builders SEALS. Complete engine build sheet must stay on file with engine builder and with track or series.

## 25. CARBURETORS

### A. GENERAL

- i. All cars will use Holley 4412 2bbl approved carburetor. (Exception 604 crate, 5.3LS may use Holley 650cfm 4bbl 4150 HP carburetor, part # 80541-1 or #80541-2
- ii. All 4 barrels of Holly 650cfm must be fully operational at all times, no secondary's disconnected.
- iii. The Holley Aluminum (Part#0-4412CT) 500 cfm carburetor is now approved.
- iv. The HP parts may also be used. Holley Ultra series will not be allowed.
- v. All carbs & parts must be gauge legal including throttle bores, boosters and booster legs, throttle plates, throttle shafts, and main body.
- vi. No aftermarket metering blocks permitted. Only (3) three open emulsion holes per side permitted. Any additional emulsion holes must be plugged and nonfunctional.
- vii. Boosters must be stock appearing and as cast for carbs style and no extra holes may be drilled. May not be tapered. Must also be in stock location in body. No modifications of boosters.
- viii. Drop-in spacers, alteration, physical changes, machining, re-shaping or tampering with any part of the original parts, internal or external, is prohibited.
- ix. Following is a listing of tuning and replacement Parts permitted for use on the Holley 4150 HP Carburetor. Only genuine Holley replacement parts are permitted and must match exactly parts replaced. a. Jets b. Bleeds c. Needle and Seat d. Emulsion bleeds e. Power Valves f. Accelerator pump nozzles g. Accelerator pump cam h. Floats include all offered by Holley for the HP 4150/650 CFM Carburetor i. Floats maybe modified/angel cut. The use of any type Epoxy on the Holley 650 CFM 4150 HP Carburetor, part number 80541-1 or 80541-2 is prohibited. Coating of any type or the use of coatings on the Holley 650 CFM 4150 HP carburetor, part number 80541-1 or 80541-2 is prohibited.
- x. Double return springs required.

### B. CARB ADAPTER (SPACER) RULE:

- i. Original orientation required. Adapters are one piece only.
- ii. All Sealed Engine Packages must use builder certified adapter specific to approved engine package.
- iii. **Carb Adapter Chart** Listed Below

Engine Package	Carburetor	Carb Spacer	Notes
GM604 Crate	Holley650cfm 4bbl	1-5/8" Max with gaskets Add 75#'s	MaxGasket Thickness .070
WEGNER5.3L	Holley650cfm 4bbl	Wegner #WA0772 Only	MaxGasket Thickness .070
WEGNER5.3/6.0/6.2	Holley-4412 500 cfm 2bbl	Wegner #WA0349 Only	MaxGasket Thickness .070
LST6.2	Holley-4412 500 cfm 2bbl	Wehrs #WM206100 Only	MaxGasket Thickness .070
ACE-FORD2934 INTAKE	Holley-4412 500 cfm 2bbl	Wehrs #WM206SB625 5/8"Max Spacer	Maximum height of manifold is 7.25" (including any carb spacer and gaskets)
ACE	Holley-4412 500 cfm 2bbl	1-1/2"Max spacer & may be open, straight or Tapered Bore. Must NOT extend down Into Intake plenum.	Maximum height of manifold is 7.25" (including any carb spacer and gaskets)
LLMCONCEPT	Holley-4412 500 cfm 2bbl	1-1/2"Max spacer & may be open, straight or Tapered Bore. Must NOT extend down Into Intake plenum.	MaxGasket Thickness .070
9:1 / SSPE / HAMNER / McGUNEGILL	Holley-4412 500 cfm 2bbl	1-1/8"Max Including Gasket & spacer may be open, straight or tapered bore. Must NOT extend down into Intake Plenum.	MaxGasket Thickness .070

## **26. FUEL SYSTEM**

### **A. FUEL CELL:**

- i. A Fuel Cell is mandatory with a 22-gallon (U.S.) maximum capacity complete with a rubber style interior bladder, full foam baffling inside and must have a functional roll over check valve ball and or safety flap system.
- ii. Teams are responsible to verify that fuel cells and bladders are up to date and in good condition.
- iii. An in-line fuel safety shut off valve (SRI #FPF-FSV or OBERG #SV0828) at the point where the fuel line exits the cell and before the fuel filter are highly recommended.
- iv. The use of "U" style fuel cells or non-standard-shaped fuel cells are prohibited.
- v. Fuel Cell Can Containers made of 1/8 inch sheet steel are strongly recommended.
- vi. All fuel cell cans must be magnetic steel with one-inch lip being a one piece design.
- vii. 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.
- viii. No aluminum fuel cell top covers allowed period

### **B. FUEL CELL MOUNTING:**

- i. 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 4" blocks front & rear, cars not meeting 10" ground clearance but with a minimum of 8" ground clearance will add 25#'s for the infraction and will be required to meet 10 inch minimum at any further competition events.
- ii. Fuel cell can is to be no closer than 2" to the back of the rear end.
- iii. 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 minimum of 3/8" and will be inspected for quality.
- iv. All fuel cells must be protected with top and bottom frame support bars and the lower rear protection bar extending below fuel cell.

### **C. FUEL CELL PROTECTION PLATES**

- i. Cars without a 1/8" thick steel fuel cell container are to be encased 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.
- ii. 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.
- iii. All fuel cell mounting and banding subject to Tech Inspector approval. (No aluminum fuel cell top covers allowed period)
- iv. Add 25#'s for non-approved 1/8" steel protection.

#### **D. FUEL PUMPS**

- i. Fuel Pump-Mechanical fuel pumps only on conventional engine package.
- ii. LST engine package allowed to run electric fuel pump as stated under LST section.

#### **E. FUEL LINES**

- vii. Fuel Lines-must be Aeroquip type or equivalent.
- viii. Routing must be outside of cockpit and protected from damage.

#### **F. FUEL**

- i. 604 GM Crate engines must run pump gasoline only, maximum 93 octane. Built engines may use racing fuel; 110 Octane maximum allowable race fuel.
- ii. Fuel samples may be taken at any time and tested.
- iii. Alcohol, nitromethane, 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.
- iv. 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.

### **27. ELECTRONIC EQUIPMENT**

#### **A. RADIOS**

- i. All drivers must have a spotter in the designated spotter area during all racing events.
- ii. Spotter required identification of car number on back of his/her shirt.
- iii. RACEceivers are mandatory for Race Director Communications

#### **B. TRANSPONDERS**

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

#### **C. CAMERAS**

- i. Only one camera max allowed must point out front window. **EFRC** "except for rare cases" example *Track/tech approved for media use.*

#### **D. ILLEGAL ELECTRONICS**

- i. Any type of traction control equipment is strictly prohibited on any car or location in the pit area of any event and will subject the team(s) to Confiscation of equipment, penalties and/or monumental fine.
- ii. No computer or video analysis equipment of any kind allowed.
- iii. Data Logging/digital gauges or data recording/acquisition equipment are not allowed.
- iv. Cellphones, smart watches or Bluetooth devices will not be allowed in racecar at any time.
- v. No speed sensors of any type allowed.

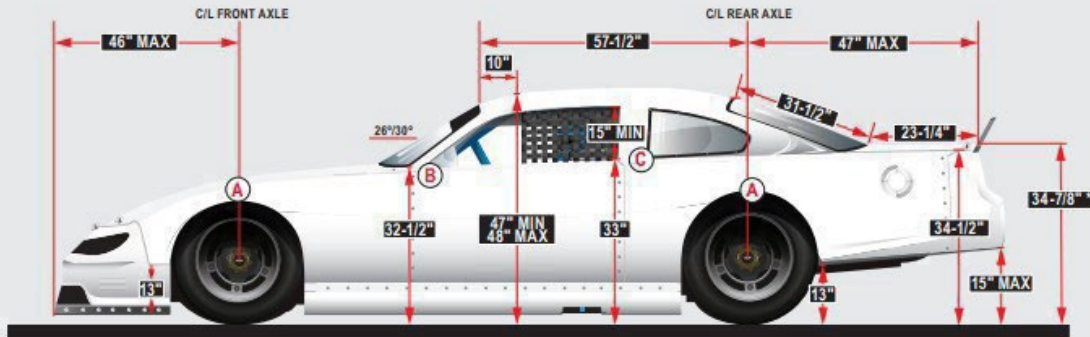
## **28. TECH INSPECTION**

- i. Any situation not specifically covered in these rules will be acted upon by the official or officials in charge at the time, whose decision will be final and binding.
- ii. Any disagreement over technical questions or operations will be resolved by Track/Series Management. When the decision is rendered, the decision is final and binding.
- iii. Continuous developments in racing may necessitate changes which cannot be anticipated at the time rules are formulated. If necessary, rules may be updated, changed, deleted or added to at the discretion of the officials.
- iv. At certain events, to encourage participation of local competitors, the officials may alter the rules for those cars to try and create a level playing field for cars that might fall outside of the normal rules. Official's decisions are final.
- v. All cars are subject to an inspection at any time before, during or after a race. Any driver/owner refusing to allow an inspection is subject to disqualification and loss of all points and money for the event. Race Teams must provide their own tools for an inspection.

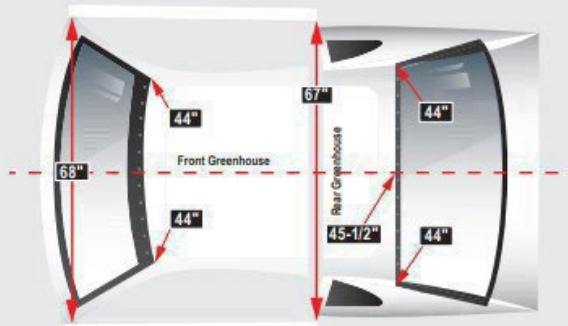


# ABC GREENHOUSE STYLE BODY DIMENSIONS

CHASSIS	ROOF HEIGHT	TREAD WIDTH	WHEELBASE
Offset/ Straight Rail	47"	66" MAX	101"-108"



- WIDTHS**
- A** 79-1/2" MAX"  
Body Width: Measured at wheel wells
  - B** 68"  
Door to Door Width: Measured at A-posts and inside edged of doors, measured through car
  - C** 67"  
Door to Door Width: Measured at B-posts and inside edged of doors, measured through car



*Note:*  
1. If the Roof Height (10" back from windshield), Fender Height (rear), Door Height (rear), Quarter Panel and Bumper Cover Height dimensions are higher than the stated dimensions, all five must increase by the same amount.

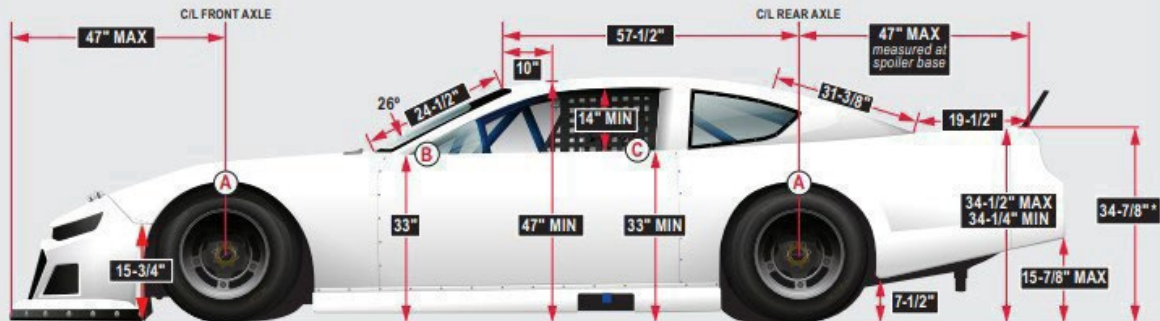
2. Must fit centerline template within allowable tolerance.

\*Measured at the seam of bumper cover at deck lid intersection, +/-1/4"



# ABC NEXTGEN BODY DIMENSIONS

CHASSIS	ROOF HEIGHT	TREAD WIDTH	WHEELBASE
Offset/ Straight Rail	47"	66" MAX	101"-106"



- WIDTHS**
- A 79-1/2 MAX"**  
Body Width: Measured at wheel wells
  - B 68"**  
Door to Door Width: Measured at A-posts and inside edged of doors, measured through car
  - C 67"**  
Door to Door Width: Measured at B-posts and inside edged of doors, measured through car



**Notes:**

1. If the Roof Height (10" back from windshield), Door Height (rear), Quarter Panel, or Bumper Cover Height dimensions are higher than the stated minimum dimensions, all four must increase by the same amount.
2. Must fit centerline template within allowable tolerance.

\*Measured at the seam of bumper cover at deck lid intersection, +/-1/4"

