



2019

Super Late Model Rules

These rules are in effect as of January 1, 2019. This publication supersedes all previous LVMS rule books and rule updates.

LVMS reserves the right to alter or amend these rules and regulations in the interest of safety, cost control, and/or fair competition. It is the responsibility of each competitor to read and understand the contents of this rule book. If there is a disagreement or dispute regarding the meaning or application of the rules, the decision of the Bullring's Chief Technical Inspector shall prevail.

The rules and regulations set forth herein are designed to provide for orderly conduct of racing events and to establish minimum requirements for such events. These rules shall govern the conditions of LVMS short track events, and by participating in these events, all participants, guests, crew members and staff are deemed to have complied with these rules and/or regulations. No express or implied warranty of safety shall result from publication of, or compliance, with these rules and regulations. They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to participants, spectators or others. In the event of a serious or fatal injury, LVMS reserves the right to impound race cars for review and evaluation, and may exercise this right at anytime. The Chief Technical Inspector shall be empowered to permit minor deviations from any of the specifications herein or impose any further restrictions that, in his opinion, do not alter the minimum acceptable requirements.

No pretense is made for having designed a foolproof set of rules and regulations. The spirit and intent of the rules is the standard by which LVMS short track events will be governed. LVMS tech officials are authorized to decide if an equipment change or modification is an attempt to circumvent these rules. LVMS officials can and will disqualify a race car in violation of the spirit and intent of these rules.

Note: If this rule book does not specifically state that you can alter, change, or otherwise modify something on your car, you should consider it a violation of these rules. Illegal components may be confiscated and become the property of LVMS. No part is deemed to have been approved by LVMS by passing through prior technical inspections.

All participants, guest and crew members fully understand that racing is inherently dangerous and that they are exposed to risks of death or serious bodily injury; the participants, guest and crew members voluntarily assume these risks at all times.

9-1 SUPER LATE MODEL RULES

9-1.1 GENERAL RULES FOUND IN THIS SECTION OF THE BULLRING AT LVMS RULEBOOK MUST BE MET TO COMPETE IN ANY CLASS AT THE BULLRING AT LVMS UNLESS OTHERWISE NOTED.

9-2 GENERAL BODY REQUIREMENTS

- 9-2.1** Please refer to the ABC official rulebook version 9.0 for all body specifications.
<http://www.fivestarbodies.com/ABC/downloads/ABCrulebook-web.pdf>
- 9-2.2** Bodies must be constructed of steel, aluminum, or fiberglass. Carbon fiber and/or kevlar components are not permitted. Flat or slab-sided bodies are not permitted. All Bodies must maintain original dimensions. Must be installed in a professional manner and meet manufactures guidelines. No wedge, down force, or aero type bodies allowed. Belly pans/under pans will not be allowed. Roof rails will not be permitted.
- 9-2.3** The minimum of 4' ground clearance on all components – nose, skirts, rocker panels, etc. without the driver. The maximum front overhang from the front centerline of the spindle to the leading edge of the lower air dam at the centerline is 46". At all times, the ABC "A" measurement must maintain a minimum of 11 ½". A minimum length of 20" is permitted for the nose, measured from the bottom leading edge at center, up to the hood seam. Minimum 47" roof height required, measured 10" back from top edge of the front windshield. Top of front fenders, doors, and rear quarter panels must maintain the same plane front to rear. The maximum of 34 ½" plus or minus ½" measured at quarter panel/deck lid/rear bumper cover intersection on both sides. The nose/fender may flare out in front of the tire on the front and rear of the vehicle; it may be a maximum of 1" past the outside of the tire measured at spindle height. The fender in back of the tire on the front and rear of the vehicle may roll in a maximum of 2", measured on the outside of the tire and measured at spindle height. Adjustments will be permitted during an event and must be done in a manner that results in the car maintaining body height requirements.
- 9-2.4** Roof rails are not permitted. No other vertical rails allowed on window or deck lid. NO "shaping" or contour modifications of panels or nose permitted in any way. The tech director reserves the right to add weight accordingly to non-conforming body measurements. Weights will be determined by the officials and are non-negotiable.

9-3 FIREWALL

- 9-3.1** Steel floor must be complete and enclosed. All holes in the firewalls must be filled. Rear firewall must completely protect driver from fuel cell and rear tires with minimum 22-gauge steel.

9-4 HOODS

- 9-4.1** Hood must fit in original position and maintain the original configuration. A minimum of four (4) hood pins at the front of the hood and two (2) hood pins or hinges at the rear of the hood. No bowed hoods. The minimum air gap of ¾" between the hood and the cowl panel, subject to tech approval. The Cowl Air Intake opening must be 2 ½" by 20" to allow fresh air to the carburetor.

9-5 REAR DECK LIDS/SPOILERS

- 9-5.1** Rear deck lid must be attached with pins and/or hinges so it may be opened for inspection purposes. Rear bumper cover filler panel must be solid. No screen, mesh, or holes.
- 9-5.2** Spoiler must follow the contour of the rear deck lid. Rear spoiler height may not exceed 6 ½", measured from any point along the deck lid to top of spoiler on all cars. Rear spoiler may be a maximum of 60" measured across the back edge on all cars. Rear spoiler must be slotted in center to allow for template (½-in.). Rear spoilers must be constructed of clear material for safety and visibility. Rudders or braces in front of the spoiler are not permitted. Wings prohibited.

9-6 BUMPERS

- 9-6.1** The nose and grille area may be cut for the installation of air ducts only. Approved front air dams must have a minimum of 4 in. ground clearance. The rear bumper may not be altered, modified, or drilled. A full rear filler panel is required. The rear bumper cover must maintain a maximum height of 15" from the ground at all times.

9-7 WINDSHIELD & WINDOWS

- 9-7.1** Windshield is mandatory, minimum of 1/8" Lexan. Must have three vertical braces inside the windshield spaced at least 6" apart and centered. Must be welded or bolted with a minimum of 1/4" bolts and flat washers to the roof hoop and the dash. Materials permitted are 3/4" x .065 tubing, 1/8" x 1" flat bar or 1/2" solid. Side port windows and rear windows are mandatory and must use a minimum of 1/8" Lexan. If A-Post panels/vent windows are used they must be max 12" at bottom 90 degree straight up, and must be inside the bodyline.

9-8 CAR WEIGHT

- 9-8.1** **All vehicles must have a sticker on the upper left hand corner of the windshield displaying their appropriate weights.** All weights will be taken with the driver, in driving the position (hands on the steering wheel). All weight must be securely bolted with a minimum of 2 - 1/2" diameter bolts. A minimum of 5 lbs blocks and all weights must be painted white and must have the car number on each piece. No "outrigger type" ballast weight brackets. Weight may not be mounted ahead of the front axle, no farther back than 4" behind the rear axle, or inside the drivers' compartment.
- 9-8.2** Officials may change weight requirements as necessary. The track scales are official weights.
- | | |
|---|------------------|
| LVMS Spec engine = | 2775 lbs. |
| LVMS Open motor = | 2900 lbs. |
| GM Factory Sealed CT 525 = | 2800 lbs. |
| SSPE, Hamner, McGunegill, Progressive, J&S Engines or equivalent = | 2925 lbs. |
- Vehicles may be weighed after an event, in which case only fuel is permitted to be added to make weight.
- 9-8.3** All cars are limited to 58.0% of left side weight at all times. Any car competing with a wheelbase more than 104 1/2" may be 58.5% left side weight maximum. Any car competing with a wheelbase more than 106" may be 59% left side weight maximum. **LVMS officials will revisit the weight rule after the first 3 races of the 2019 season. If there needs to be an adjustment all competitors will be notified.**
- 9-8.4** No mechanical or hydraulic devices for shifting weight permitted.

9-9 FRAME REQUIREMENTS

- 9-9.1** Full tube frames or stock sub-frames are permitted. Perimeter or straight rail chassis permitted. Mainframe rails or clip sections may not be pierced, drilled, or otherwise altered for reducing weight. Absolutely no holes will be tolerated in the mainframe rails or sub frames except to facilitate component attachment and/or brackets.
- 9-9.2** Mainframe rail structure of chassis, defined as the primary structure to which the roll cage center section mounts to must be constructed of steel having a minimum perimeter of 10" (2" x 3" etc.) and be a minimum .095" wall thickness in that portion of the frame contained within the wheelbase. Front and rear sub frame sections extending from the center section must also be 10" perimeter members, but may have a minimum wall thickness of .083. If the frame rails are 12" perimeter, (3" x 3") minimum wall thickness may be .090. All frames are subject to approval. Any frame rejected by the LVMS officials for poor workmanship will not be approved until necessary changes have been made.

9-10 ROLL BARS

9-10.1 A Roll cage is required. Roll cage minimum 1 3/4 "x .095 round ERW or DOM tubing. Roll cage must have main hoop, roof hoop, two (2) A-Post bars, dash, and main hoop spreader bars and main hoop diagonal bar. Minimum of three (3) door bars on left side and two (2) door bars on the right side. Left side door bars must radius out to within 1" of the door skin. Door bars must be tied to frame at center.

An upright brace between each door bar shall be welded into place. Right side door bars may run straight between hoops instead of curving out to bodyline. Bars must be of the same material as roll cage and similarly gusseted. A windshield bar (Earnhardt Bar) from roof halo to dash bar is recommended.

9-10.2 Roll bars must be padded anywhere driver may come in to contact with the bars. A driver's side door bar pad is permitted.

9-10.3 LVMS recommends the installation of steel door plates, 10 gauge or 1/8" thickness metal, must be securely welded to door bars on drivers side. Plate must cover the area from the top door bar to the bottom door bar and from the A post to the B post. The plates must be visible for inspection. **Door plates are mandatory.**

9-11 GROUND CLEARANCE REQUIREMENTS

9-11.1 No part of the Chassis, Body or Weights shall be lower than 4" ground clearance as per ABC rule book. Cross members, oil pans, and exhaust systems do not have a height rule, however if any part of the car excessively drags the track when the car is in competition they will receive the black flag. The fuel cell must have a ground clearance of 8". All height measurements will be made with the driver outside of the car. Adjustments will be permitted during an event and must be done in a manner that results in the car maintaining ground clearance requirements.

9-12 WHEELBASE & TREAD WIDTH REQUIREMENTS

9-12.1 Minimum wheelbase is 101" no exceptions (100 3/4" is too short). All wheel base measurements will adhere to the 1/2" plus or minus on the opposite side. Any car competing with a wheelbase more than 104 1/2" may be 58.5% left side weight maximum. Any car competing with a wheelbase more than 106" may be 59% left side weight maximum.

9-12.2 **Track width for perimeter chassis is not to exceed 68", front or rear. Track width for Straight rail chassis is not to exceed 66", front or rear.** Measured at spindle height on the inside edge of the right front tire to the outside edge of the left front tire. Only LVMS official measurements are final.

9-13 SUSPENSION

9-13.1 Independent front suspension of steel or aluminum construction is mandatory, with articulated upper and lower control arms. Major front end components including steering arms, tie rod ends, idlers, spindles, center link, lower control arms, and upper control arms may be fabricated aluminum, however steel is recommended. No lightening holes permitted.

9-13.2 Minimum coil spring diameter is 2 1/2", bottom coil spring mounts must be located on the lower A-arm and top mount must be securely attached to the chassis.

9-13.3 Independent rear suspension is not permitted. Rear suspension may be either a two (2)-link truck arm style, a three (3)-link type suspension, or a four (4)-link with two (2) upper arms. Rear springs must be mounted in the same manner/location on each end of the rear end housing.

9-13.4 All suspension components must be mounted with heavy-duty aluminum or steel heim joints.

9-13.5 No weight adjusting, track bar, or top link adjusting devices allowed within reach of the driver while inside the car.

9-13.6 Type of shock absorber is optional, one (1) per wheel only. No external reservoir shocks and no electronic shocks. Adjustable shocks ok. Bump stops permitted.

9-14 STEERING COMPONENTS

9-14.1 Rack and pinion steering permitted. Quick release coupling on steering wheel is required. A pad of at least two (2) inches must cover the steering wheel hub. All cars must be equipped with a steel steering shaft and must have a collapsible section; the use of two (2) U-joints is an acceptable method.

9-15 WHEELS and TIRES

9-15.1 All cars must compete on 15” steel wheels with a maximum of 10” wide. All four wheels must have the same width. Only 1 valve stem allowed per wheel, no wheel weights, and no bleeder valves allowed. Wheel studs must be 5/8” minimum with 1” minimum lug nuts.

9-15.2 All cars will run LVMS tires purchased from LVMS tire dealer. The track specified tire for the 2019 season is the Hoosier 3045 10”. No shaving, grinding, cutting, softening, conditioning, siping, or grooving of tires allowed. A minimum durometer reading may be enforced at all time. Tire limitation rules apply. Competitors must start the feature event on the same times they qualify on.

9-15.3 LVMS has a “Tire limitation rule” in an effort to lower the costs associated with racing by limiting the amount of tires any competitor may purchase. The tire limitation rule is only in affect for the tires that are eligible to race on, not practice on. Below are the requirements, rules, and guidelines for the Tire Limitation Policy:

- **On Opening Day, each competitor who has a car in the pits that attempts to qualify and compete in that evening’s events may record a maximum of SIX (6) new tires. The first event and double feature nights will be the only opportunity to record more than two (2) tires at a time for the entire race season unless otherwise notified by LVMS Tech Officials. No banking of tire purchases.**
- On each race day, after the first race event, that LVMS holds a NASCAR Super Late Model event, each competitor who has a car eligible and ready for competition will be allowed to record two (2) tires. Cars must attempt to qualify and compete. What constitutes a qualifying attempt shall be left to the discretion of LVMS officials. If the car does not attempt to qualify and compete, the tire/tires will be considered NEW for the next event and that competitor will not be allowed to record two (2) new tires. Under no circumstance will an owner, competitor, or his/her agents be allowed to record more than two (2) tires per race after Opening Day. Each tire will be branded, logged, and recorded by LVMS Tech Officials.
- In the event that a competitor is unable to attend or compete on Opening Day, at their first race to LVMS they may record four (4) new tires.
- **LVMS will allow 4 tires to be recorded for each competitor who has a car in the pits that attempts to qualify and compete in that evening’s events on April 20th, June 15th, July 3rd, August 24th, and September 21st, 2019. These dates will be the only dates that there will be an exception to the 2 tire per race rule.**
- In the event that a competitor flattens or damages more than one tire in an accident, only one (1) new tire may be recorded for replacement. The Competition Director may approve additional tires to competitors damaging more than one tire in an event. Competitors must present all damaged tires to Track Officials before the end of the night to be eligible for replacement. The replacing tire must be of similar age and quality of the tire it is replacing; i.e. a new tire replaces a new tire or a used tire replaces a used tire.

9-16 GENERAL ENGINE REQUIREMENTS

- 9-16.1** Engine rules are established based on the use of a wet sump oiling system. Dry-sump systems are permitted on any "LVMS Open Engine" or "S.E.A.L." engine. An accusump-type auxiliary oil reservoir is permitted.
- 9-16.2** All GM engines must be located so the center of the forward most spark plug hole is a max. Two (2) inches rearward of the centerline of the upper ball joint. Engines with front mounted distributors: up to four inches (4") setback from the center of the forward most spark plug hole to centerline of upper ball joints. On all engines, the center of the crankshaft must be within one (1) inch of the centerline of the car. Engine ground clearance will be measured from center of crankshaft at pulley mounting. A minimum of 10" from center of crankshaft to ground measured without the driver in the car.
- 9-16.3** Chevrolet Performance's CT525 6.2L crate engine will compete at 2800lbs., with a 513 or a 529 final gear ratio and a maximum of 7000 RPM's. The carburetor for the CT525 is the Holley 4150 - 650CFM (P/N 80541-1/2). If competitor is caught with illegal CT525, complete engine will be impounded by LVMS and not returned. Any other engine package will be run at a weight decided on by LVMS officials.
- 9-16.4** Approved McGunegill, Hamner, Progressive, J&S Engines, SSPE or other approved "S.E.A.L. Engines" at 2,925lbs. All approved S.E.A.L and SSPE engines must use the gauge legal, 750 Holley carburetor. LVMS will have builder seal logs on file to verify all seal numbers and any tampering of seals or established construction of these engines is grounds for immediate disqualification. 7600 maximum RPM limits on the "S.E.A.L." engines and 7800 maximum RPM limit on the "S.S.P.E" engines. Rev limiting device must be operational at all times with RPM Dials securely covered.
- All cars using the approved S.E.A.L. - McGunegill, Hamner, Progressive, J&S Engines, or SSPE must only use the following ignition system: **ONE** Crane Cams Ignition part# 6000-6700 (HI-6RC) and a Coil part# 730-0192 (PS92N), mounted on a tray as from Crane Cams, as far to the right and forward as possible inside the car. RPM dial positioned facing right side of car. Any other engine package will be run at a weight decided on by LVMS officials.

9-17 LVMS SPEC ENGINE REQUIREMENTS

- 9-17.1** All engine parts must be as per make. GM to GM, Ford to Ford, etc. No titanium parts allowed other than the use of titanium valve retainers.
- 9-17.2**
- | <u>Block</u> | <u>Stroke</u> | <u>Rod length</u> | <u>Max. Bore</u> | <u>Max. C.I.</u> |
|--------------|---------------|-------------------|------------------|------------------|
| Chevy | 3.48 +/- .020 | 5.700 – 6.250 | 4.060 | 360 |
- 9-17.3** Maximum compression ratio is 10.5:1.
- 9-17.4** The oil pan must be wet sump reservoir and manufactured using a stock type pan with only a sump reservoir added to the bottom. All bolt holes and flanges must be visible. All oil pans must be made of steel and must meet LVMS approval. Approved oil coolers are permitted. A 3/4" plug must be installed in the oil pan for inspections (Moroso PN 23970), that access hole must be inline with a connecting rod journal. *If an inspection hole does not exist and an inspection is required, oil pan must be removed or disqualification will result.*
- 9-17.5** Engine block must be stock cast iron only. Light deburring is permitted. Screening of the intake valley area, for debris protection, is permitted. Aftermarket cast iron blocks are permitted as long as they meet OEM specs and weights.
- 9-17.6** Crankshaft must be cast or forged steel only and must maintain OEM specifications within .020". Crank must weigh a minimum of 49 lbs. Knife-edging or lightening the crankshaft is not permitted. Balancing is permitted. No "stroker" cranks permitted. Aftermarket racing crankshafts are permitted but must maintain OEM specifications. Minimum rod journal size must be 2.00" within .030" undersize. Only steel or standard OEM steel type harmonic balancers are permitted. Minimum diameter of 6" is required on all balancers.

- 9-17.7** Connecting rods must be solid steel. Aluminum, titanium, stainless steel, or hollow rods are not permitted. Connecting rods may be balanced and the use of aftermarket rod bolts is permitted. All rods must maintain the minimum/maximum rod length listed. Interfacing of rods between manufacturers is not permitted (i.e. no Honda rods in GM engines).
- 9-17.8** Pistons from any source must be of a flat-top or dished design only. A minimum of 3 rings per piston is required. The pistons may not protrude above the deck.
- 9-17.9** Cast camshaft must be a solid steel lifter type with a maximum lift of .510", measured at the valve. Valve lash adjustment is not permitted prior to inspection. Only solid, flat-tappet lifters are permitted and must maintain OEM diameter. Hydraulic, mushroom, roller, or roller type lifters are not permitted. Shaft rockers are not permitted. Roller rockers and stud girdles are permitted. Camshafts must be designed to maintain contact between lifter and lobe at all times. No hard-faced cams are permitted. Gear drives are not permitted. Firing order must maintain OEM firing order and rotation. Approved firing order is: GM – 1-8-4-3-6-5-7-2.
- 9-17.10** Cylinder head must be a stock Chevrolet Vortec (casting Nos. 12339906, 12558062) only or ProMaxx aftermarket replacement heads #2150 or #2151. Casting number must be clearly visible and not altered in any way. Combustion chamber volume must be a minimum of 61cc. Maximum intake port volume is 173cc and maximum exhaust port volume is 163cc. Angle milling, port matching or grinding of any type is not permitted. The heads may be surfaced/milled only to true the gasket surface. Chemical milling or porting is not permitted. No alterations may be made to the bowl, port or runner area. Maximum steel intake valve size is 2.020" and maximum exhaust steel valve size is 1.600". The maximum of a 3 angle valve job is allowed. When cutting the valve seat angles, no stone, cutter, or grinding marks are permitted above the bottom of the valve guide. Titanium valve retainers permitted. Screw-in rocker studs and guide plates are permitted.
- 9-17.11** Intake manifold must be a stock Edelbrock (part No. 2913) or other mass produced equivalent. Intake manifold may not be modified in anyway, including but not limited to: acid-washing of ports, port-matching, painting, or removal of any materials on intake. Carburetor spacers are permitted. Please refer to rule 9-19.4 for specifications.

9-18 LVMS OPEN ENGINE REQUIREMENTS

- 9-18.1** The allowable maximum cubic inch displacement at any time shall be 360. The maximum overbore allowed in any cylinder is .080". Only V-8 engines are eligible for competition. All engine parts must be as per make. GM to GM, Ford to Ford, etc. No titanium parts allowed other than the use of titanium valve spring retainers and keepers.
- 9-18.2**
- | <u>Block</u> | <u>Stroke</u> | <u>Rod length</u> | <u>Max. C.I.</u> |
|--------------|----------------|-------------------------|------------------|
| Chevy | 3.480 +/- .020 | 5.700 min. - 6.250 max. | 360 |
| Ford | 3.500 +/- .020 | 5.700 min. - 6.250 max. | 360 |
| Dodge | 3.580 +/- .020 | 5.700 min. - 6.250 max. | 360 |
- 9-18.3** Maximum compression ratio is 11.1:1.
- 9-18.4** The oil pan must be manufactured using a stock type pan with only a sump reservoir added to the bottom. Wet sump or dry sump system permitted. All bolt holes and flanges must be visible. All oil pans must be made of steel and must meet LVMS approval. Approved oil coolers are permitted.
- 9-18.5** Engine block must be cast iron, a product of the manufacture of the make being used, or an aftermarket equivalent. Aluminum blocks are not permitted. Angle cutting of the block deck, or grinding or milling for weight reduction of the block is not permitted. Internal polishing of the engine block is allowed. Light deburring is permitted. Screening of the intake valley area, for debris protection, is permitted.

- 9-18.6** Crankshaft must be cast or forged steel only and must maintain OEM specifications within .020". Odd firing order or 180 degree crankshafts are not allowed. Balancing is permitted. Aftermarket racing crankshafts are permitted but must maintain OEM specifications within .020". Only steel or standard OEM steel type harmonic balancers are permitted. Minimum diameter of 6" is required on all balancers.
- 9-18.7** Connecting rods must be solid steel. Aluminum, titanium, stainless steel, or hollow beam rods are not permitted. Connecting rods may be balanced and the use of aftermarket rod bolts is permitted. All rods must maintain the minimum/maximum rod length listed.
- 9-18.8** Any 3 ring piston may be used. A minimum of 3 rings per piston is required. The pistons may not protrude above the deck.
- 9-18.9** Any hydraulic or flat tappet camshaft using a straight barrel OEM diameter lifter will be permitted. No roller camshaft bearings. Camshaft bearing journals allowed not more than .120" over stock diameter. Solid, hydraulic, or roller tappets lifters permitted. Roller lifter camshafts, and any type of auxiliary valve spring system (i.e. Rev Kits) are permitted. Roller rockers, shaft-mounted rockers, and stud girdles are permitted. Camshafts must be designed to maintain contact between lifter and lobe at all times.
Lifters must be the same size in diameter as original equipment. Gear drives are not permitted. Belt drives are permitted with a cover only. Firing order must maintain OEM firing order and rotation. Approved firing order is: GM – 1-8-4-3-6-5-7-2.
- 9-18.10** Cylinder head must be an unaltered Brodix Spec head, part P/N SP CH, SP FO, and SP MO or equivalent. The only approved cast iron Chevrolet head is P/N 10134392, casting number 14011034. The only approved cast iron Ford cylinder head is P/N M6049-N351. Casting numbers must be clearly visible and not altered in any way.
- 9-18.10A BRODIX HEADS:** Brodix Spec heads must be run as produced by the manufacture. Porting, polishing, removing of material, radiusing of edges, port matching, or grinding of any type is not permitted. Any valve job will be allowed regardless of the number or type of angles. Milling and angle milling of the cylinder head to block mating surface shall be allowed, however the cylinder head valve angle must remain within 1 degree of the factory specifications. Chemical milling or porting is not permitted. No alterations may be made to the bowl, port or runner area. Valve seats and guides will remain as produced by the manufacture and in their original locations. Tapering, re-shaping, or any other alteration of the valve guides will not be permitted. Valves must be identical in appearance and construction as an OEM type valve. Air directional devices or holes will not be permitted on the valve surface. 11/32" stem diameters only. Undercut valves will be permitted with a minimum diameter of .305". Maximum steel intake valve size is 2.080" and maximum exhaust steel valve size is 1.600". Titanium valve spring retainers and keepers are permitted. Studded heads are permitted, stud girdles are permitted. Repairs of Spec head will be permitted. Any repairs must be completed by and fully documented by Brodix. Documentation must be forwarded to LVMS officials.
- 9-18.10B CAST IRON HEADS:** Cast iron heads must be run as produced by the manufacture. Performance cylinder heads such as, but not limited to, square port, Dart, Edelbrock, and limited production cylinder heads are NOT permitted. Heads must have been produced in sufficient numbers to allow each competitor an opportunity to purchase the head at reasonable cost. Porting, polishing, removing of material, radiusing of edges, or grinding of any type is not permitted. Cylinder head port matching a maximum of a 1/2" into the intake port ONLY. Exhaust ports may not be altered. The maximum of a 3 angle valve job is allowed. When cutting the valve seat angles, no stone, cutter, or grinding marks are permitted above the bottom of the valve guide. Milling and angle milling of the cylinder head to block mating surface shall be allowed, however the cylinder head valve angle must remain within 1 degree of the OEM, as produced standard production head specifications. No alterations may be made to the bowl, port or runner area. Valve seats and guides will remain as produced by the manufacture and in their original locations. Tapering, re-shaping, or any other alteration of the valve guides will not be permitted. Valves must be identical in appearance and construction as an OEM type valve.

Air directional devices or holes will not be permitted on the valve surface. Undercut valves will be permitted with a minimum diameter of .305". No hollow valves. No titanium valves permitted. Maximum steel intake valve size is 2.055" and maximum exhaust steel valve size is 1.625". Titanium valve spring retainers and keepers are permitted. Studded heads are permitted, stud girdles are permitted.

- 9-18.11** Intake manifold must be a stock Edelbrock (part No. 2925) or other mass produced equivalent. Intake manifold may not be modified in anyway, including but not limited to: acid-washing of ports, port-matching, painting, or removal of any materials on intake. The carburetor mounting flange may be reduced in height by milling, with a square cut, a maximum removal of .500". Intake manifold may be port matched a maximum of 1" into the intake ports at head. No other alteration will be permitted. Carburetor spacers are permitted. Please refer to rule 9-20.4 for specifications.

9-19 CARBURETOR

- 9-19.1** A maximum of a single Holley 750 CFM 4150, 4-bbl carburetor may be used. HP and Ultra HP/XP models permitted. Throttle bore will not exceed 1.688" and Venturii size will not exceed 1.376". Except the CT525 crate engine, the carburetor for the CT525 is the Holley 4150 - 650CFM (P/N 80541-1/2). All cars must have a minimum of two (2) springs on throttle return cable
- 9-19.2** No polishing or grinding permitted. The choke assembly must be removed, and all screw holes must be permanently sealed. The choke horn may be removed and you may radius the edges of the choke horn. Boosters may not be changed. Size or shape must not be altered. Height must remain standard. Venturii area may not be altered in any manner. Casting ring must not be removed. Cam and accelerator pump may be replaced with aftermarket units.
- 9-19.3** Base plate must not be altered in shape or design. Stock butterflies must not be thinned or tapered. One (1) idle hole may be drilled in each butterfly with a maximum of 3/16" diameter drill bit. Screw ends may be cut even with shafts, but screw heads must remain standard. Throttle shafts must remain standard and must not be thinned or cut in any way. Any attempt to pull outside air anywhere other than down through the venturii is not permitted. Alterations to allow additional air to be picked up below the opening of the venturi such as altered gaskets, base plates, and drilling holes into the carburetor will not be permitted. Carburetor jets must be the same type as furnished by the carburetor manufacturer. The maximum thickness of any carburetor gasket will be .065". Limited to 1 gasket each.
- 9-19.4** The use of a carburetor spacer is permitted. The carburetor spacer must be aluminum. The carburetor spacer must be a straight through open spacer. No 4 hole or vortex ported spacers. The sides of the opening must be smooth; the diameter of the opening must be square on both sides and must be the same as measured on the opposite side. **The maximum plenum height as measured inside of the plenum is 4 13/16"**. This measurement must be taken with the carburetor off and will be measured with a straight edge across the top of the manifold. This measurement does not include the gasket between the carburetor and the spacer; however it does include the gasket between the manifold and the spacer. The maximum thickness of any carburetor gasket will be .065" limited to 1 gasket each per mating surface.

9-20 AIR CLEANER AND FILTER

- 9-20.1** Air box must be made of composite or metal material and mass produced. The use of the Five Star Bodies - Cowl Induction cold air box is recommended, equivalent air inlet adaptors will be subject to LVMS technical approval. No alteration of the air box is permitted. Ducts, baffles, scoops and/or holes in the hood to direct air to the air cleaner are not permitted; all air will enter the carburetor through the 2 1/2" X 20" cowl opening at the base of the windshield.

- 9-20.2** All air must be filtered through a K&N filter or a dry filter. NO filter oil may be applied to dry filter element. All filters must be 14" diameter. Only approved K&N part #'s:
K&N PN: E-3027R 14"X 3" tall filter element.
K&N PN: E-3029R 14"X 3 ½" tall filter element.
K&N PN: E-3031R 14"X 4" tall filter element.
Only the K&N filter element may use filter oil, no other filter element may use filter oil.
Air must enter the filter element in an even and consistent manner without obstruction. LVMS reserves the right to impound any air filter at any time. LVMS reserves the right to mandate a spec air filter at any point during the racing season.

9-21 ELECTRICAL

- 9-21.1** Battery powered ignition only. Vehicle must start under own power. Alternator must mount on the front of the engine.
- 9-21.2** 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/or not part of a bigger loom or wiring harness. All ignition boxes are subject to inspection at any time. The six (6) pin male and female connectors, part # MSD8170 will be the only connectors permitted. Any other wires will not be permitted. All installations must be within MSD instillation guide lines. All wires must be visible and out of the reach of driver. Any hidden ignition components found will result in loss of points for season, fines and suspension. Maximum of two 2 ignition boxes are permitted. Both ignition boxes must be functional and controlled by a switching device.
- 9-21.3** "Traction control" devices – mechanical, electrical, or otherwise – are not permitted. If any "traction control" device is found, that driver will be disqualified for that event, all points for the year will be taken away and the car will be confiscated until a \$10,000 fine is paid. Additional, the driver will be suspended from competition at LVMS for no less than 24 months. No onboard computer, record keeping devices, or wiring for such devices permitted.
- 9-21.4** Electronic distributors, single or dual breaker points or any camshaft driven type distributors are permitted. Magnetos, crank trigger, optically triggered or computerized systems are not permitted. Adjustable timing controls and/or retard or ignition delay devices will not be permitted. Any brand of spark plugs may be used.
- 9-21.5** All cars must be equipped with a master battery shut off located in the center cockpit of the car. The switch must be clearly marked "Off & On" and within the reach of the driver and safety crew from the left side of the car.
- 9-21.6** The battery must be completely encased if in cockpit. No battery may be located forward of the front spindle or rear of the rear-end housing.

9-22 ENGINE COOLING

- 9-22.1** All radiator cooling air must be obtained form the grill area below the bumper line. The grill area above the bumper line cannot be cut out for any reason. The air box between the nose and radiator may have no pieces wider than the radiator. No types of under-body air deflectors are allowed. All air for blowers or coolers in the engine compartment must be pulled from the nose or the radiator air box.
- 9-22.2** Water pump must be mechanically driven and must be located in the stock location and must rotate in the same direction as the crankshaft. All coolant must flow in the same direction as OEM production engine.
- 9-22.3** Mechanical fan or electric fans allowed. No fiberglass or aluminum flex fans permitted. All fan assemblies must have fan shroud/finger guard.
- 9-22.4** A one (1) quart overflow catch tank is required on all cars. Catch tank must have a vent hose protruding out of the hood, vented out to the right side of the windshield enabling the driver to see overflow.
- 9-22.5** A stock-type radiator of any source or capacity is permitted. Radiator must be mounted securely in the stock location. Extended shrouds or ducts directing air to the radiator are permitted but may not extend past front nose.
- 9-22.6** NO Anti-freeze or similar products permitted. Water wetter permitted.

9-23 EXHAUST SYSTEM

- 9-23.1** The use of any exhaust header is permitted.
- 9-23.2** All exhaust must exit behind driver. Exhaust pipes from header to the collector may not be larger than 5" in diameter (O.D.). If exhaust exits through the door, installation must include an exhaust flange that is mounted flush to the door. Exhaust pipe must not protrude through the door.

9-24 DRIVE TRAIN

- 9-24.1** A steel bellhousing must cover a least 270 degrees of the top of the clutch unit for clutch assembly over 7 1/4". Magnesium or aluminum bellhousing accepting a reverse-mount starter with 9 7/8" flywheel or cover mounted starter ring gear permitted. 1 1/4" inspection hole must be drilled directly beneath the clutch unit or must have a removable cover. Bellhousing must accept push-style hydraulic release bearing or mechanical bearing.
- 9-24.2** 5.5" metallic, multi-disc, push-style clutch only. Pull-type clutches are not permitted. Flywheel, flywheel button, and starter ring gear must be magnetic steel. No aluminum within clutch assembly is permitted. No lightening holes permitted in any friction disc surface including friction disc, floater plates, and pressure/fulcrum plate. No "slipper" or "centrifugal" clutch assemblies permitted. Floater plate and pressure/fulcrum plates must be one-piece and steel. No aluminum or titanium pieces permitted. No carbon fiber or composite material will be permitted in any part of the clutch unit. No titanium, aluminum, or drilled mounting bolts permitted. All vehicles must be able to be self-moving with working clutch.
- 9-24.3** Any aftermarket or OEM manual or automatic transmission may be used must have at least two (2) functioning forward gears and a reverse gear. Transmissions of in and out type are not permitted. No five (5) speed or greater or quick-change transmissions permitted. All gears within the transmission must remain stock/as produced.
- 9-24.4** It is mandatory that two 360 degree steel brackets, no less than 2" wide and 1/4" thick, be placed around the drive shaft and fastened to the floor or cross member of the car to prevent drive shaft from becoming dislodged and dropping onto the race track. Drive shaft hoops must be mounted within 12" from each universal joint on both ends of the drive shaft. All drive shafts must be either 2" OD minimum steel and painted white or 3" OD minimum Aluminum shafts.
- 9-24.5** Quick-change rear ends are permitted. Cambered rear ends are not permitted. Direct drive cars are not permitted. No titanium or magnesium components in rear end.

9-25 BRAKES AND BRAKE COOLING

- 9-25.1** Vehicle must be equipped with functioning four-wheel hydraulic brakes. No floating brake calipers permitted. After market multi-piston calipers are permitted. The use of brake gauges allowed. Brake bias valves are permitted.
- 9-25.2** No carbon fiber or titanium rotors. Only steel rotors are permitted. Brake lines must be outside frame rails and visible. Electronic wheel speed sensors or brake actuators will not be permitted. Power assisted braking systems will not be permitted.
- 9-25.3** All brake cooling air inlets and inlet locations must be obtained from the grill area below the bumper line through separate openings or from the radiator duct work. No openings above the bumper line, including the headlight openings. Fans or blowers may be used in the cooling hoses. Fans/blowers must be mounted in such a way as to draw air for the brake assembly only. Air may not be blown or forced onto the tire or bead...air may only be directed to the brake rotors.

9-26 FUEL & FUEL CELLS

- 9-26.1** Track-specified fuel is required for competition. Fuel must be purchased from track-specified distributor. The chemical composition of the fuel may not be altered by any means. No icing or cooling of fuel system, fuel tank, fuel or intake is permitted in pit or racing areas.
- 9-26.2** All cars must be equipped with an approved fuel cell, securely mounted in the trunk area as far forward as possible and centered between the rear frame rails. Fuel cell must have a minimum of 8" ground clearance at all times. The use of a commercially manufactured fuel cell and 22 gauge steel container is required. Fuel cell vent pipe check valves are allowed. Fuel cell must be full of foam. Only standard foam supplied by the cell manufacturer allowed in cell.
- 9-26.3** Fuel cell container must be installed between the frame rails. Fuel cell must be secured with steel tubes, no less than two lengthwise and two crosswise 360 degrees both directions. Tubes must be made of 1" x 1" square tubing. Two tubes must support fuel cell container, minimum of 1" square tubing secured to frame. Check valve must be installed to prevent fuel from coming out. No electrical devices are permitted in trunk compartment, except transponders. If fuel line is run through driver's cockpit, fuel line must be in a steel tube.
- 9-26.4** **A fuel cell protector is required, no more than the width of the frame rails. A reinforcement plate of not less than 14 gage (.078 inch thick) magnetic steel flat plate must be installed in front and behind the fuel cell container. The plates must extend the entire height and width of the full cell container and be securely welded in place or bolted (min. 3/8 diameter bolts) with two (2) bolts on each side.**
- 9-26.5** Only OEM type manual fuel pumps in stock location are permitted. No electric fuel pumps.
- 9-26.6** One metal gasoline filter may be used. No plastic or glass filters permitted.

9-27 SAFETY EQUIPMENT

- 9-27.1** It will be mandatory for all Drivers to wear a helmet carrying a valid, SA2005 or newer, standard Snell sticker, or a SFI 31.1 rating at all times while on the racing surface. No motorcycle helmets and No "M" Snell sticker helmets. Helmets must accompany the car at time of all inspections. *It is strongly recommended that all drivers record blood type and RH factor, plus any major medical allergies to an adhesive tape label to outside back of helmet.* Head and Neck restraint systems required. Fire suits must effectively cover entire body and meet a minimum SFI 3.2A/1 rating. The use of fire resistant gloves and fire resistant shoes are required. Fire resistant underwear HIGHLY recommended.
- 9-27.2** Only purpose built aluminum racing seats approved by LVMS officials permitted. Halo seats highly recommended. It is recommended that all seats have padded rib protectors and leg extensions on both sides. A padded head rest is mandatory. Seat must be mounted to the roll cage, not the floor pan.
- 9-27.3** A quick release lap belt no less than 3" wide is required. Both ends of the lap belt and both ends of the shoulder harness must be fastened to the roll bar with Grade 8 bolts not less than 1/2" in diameter. The shoulder harness and lap belts must be bolted so that the ends of the belts move freely. Shoulder harness must be no less than 3" wide and must come from behind driver's seat max 3" below the drivers' shoulders or less than 10 degree's. Where the harness crosses the roll cage, it must pass through a steel guide welded to the cage that will prevent the harness from sliding side to side.
- A center (crotch) or submarine belt must be mounted to the lower seat frame at the bottom. Where the belt passes through the seat edges, it must have a grommet installed, be rolled and/or padded to prevent cutting.
- All seat belts and shoulder harnesses must connect at the lap belt with an approved quick release buckle. Seat belts must be dated by the manufacturer and must not be used beyond three (3) years after the manufacture date. If a HANS device is being used, then the HANS style seat belts may be used.

- 9-27.4** Rib type window net (minimum 16" X 20") on driver's window is required. It must release from the top with seat belt type latches, and it must be securely fastened to the top drivers door bar on the cage. Window net must be dated by the manufacturer and must not be used beyond five (5) years after the manufacture date.
- 9-27.5** It is mandatory to have an on-board, pressurized, fire extinguisher system. This cylinder must contain a minimum of five (5) lbs of fire extinguisher agent visibly designated on the label, of the Halon 1211, Halon 1301, Dupont FE-36, or equivalent type.
It is required that each car have, within the Drivers reach, a manually controlled push or pull knob which activates the fully charged fire extinguishing pressurized cylinder with a visible, operating pressure gauge. This fire extinguisher must be securely mounted to the frame and/or roll cage structure and must not use duct tape and/or cable ties. The gauge must be easily visible for technical officials to read.

9-28 ACCESSORIES

- 9-28.1** No on-board computers, automated electronics, record keeping devices except tachometers. No digital readout gauges allowed.
- 9-28.2** Wink type 3 dimensional mirrors will be permitted and must be mounted at the top and center of the windshield. An additional 4" maximum left side mirror may be fitted; however it must meet LVMS official's approval. No mirror may extend outside the body.
- 9-28.2** Transponders will be required. Transponder must be mounted on the right rear frame rail 168" back from the front edge of the vehicle. Car with a transponder that is mounted closer than 168" will be docked 1 position for the race that the infraction accrued.
- 9-28.3** Radios for this division between spotter and driver are permitted. RACEceiver is required in all cars. Cars will not be allowed to compete if the driver does not have a properly functioning RACEceiver. Drivers failing to have correctly functioning RACEceiver during an event are subject to penalties, not limited to loss of points and fines.

9-29 FIRST TIME VISITORS

- 9-29.1** LVMS invites all Out of Town and/or first time competitors to race at The Bullring. Due to the differing levels of competition, LVMS reserves the right to adjust gear, total weight, and/or bias on an individual basis. **Any car not meeting these rules is subject to weight penalties, but will be allowed to compete.**