# 2019 Super Stock 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.

## 10-1 SUPER STOCK RULES

**10-1.1** 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.

## **10-2 COMPETING MODELS**

**10-2.1** 1960 or newer, North American made cars. No two-seat sports cars, front wheel drive, station wagons, four wheel drive, pickup trucks, or convertibles allowed. All cars must run stock clip for vehicle being used.

## **10-3 GENERAL BODY REQUIREMENTS**

- **10-3.1** All cars must have complete bodies, steel roof, steel/aluminum deck lid, steel/fiberglass hood, steel/fiberglass fenders, steel/fiberglass quarter panels, and bumpers; all body parts must be in good condition. Driver must be well shielded from tires and driveline. Full-length and full-width steel floorboards are required. Interior sheet metal can be removed from doors, fenders, and roof. Body must maintain original manufacturer's dimensions, narrowing or lowering the body is not permitted.
- **10-3.2** No wedge, down force, or aero type bodies allowed. Bodies must be neat and stock appearing. LVMS officials have final approval.

## 10-4 FIREWALL

**10-4.1** Firewall may not be modified. Firewall must be stock steel and firewalls must remain in stock location for chassis being used. 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.

## <u>10-5 DOORS</u>

**10-5.1** Doors must be attached to prevent opening. The use of Nerf Bars is allowed but must run on inside of door skin.

## <u>10-6 HOODS</u>

**10-6.1** Hood scoops allowed for air cleaner clearance. No holes permitted in the hood. No more than  $\frac{3}{4}$ " from edge of windshield along the entire surface.

#### 10-7 REAR DECK LIDS/TRUNKS/SPOILERS

- **10-7.1** Rear deck lid must be attached with pins and/or hinges so it may be opened. Rear bumper cover filler panel must be solid. No screen, mesh, or holes.
- **10-7.2** One spoiler mounted at the rear of the deck lid meeting the following requirements: Must not be more than 6" high, not to extend any farther than the rear deck width, and not to exceed 60" measured across the back edge. Wings prohibited.

#### 10-8 BUMPERS

**10-8.1** All bumpers must be attached to the fenders to prevent hooking. Bumper may be reinforced. Reinforcement may not be exposed.

## 10-9 WINDSHIELD & WINDOWS

- **10-9.1** Lexan must be used in lieu of standard windshield glass. A minimum of three straps, 1/8" x 1" must be installed inside the windshield. Straps must be installed in a manner that will not obstruct the vision of the driver and must protect the driver from a tire entering cockpit.
- **10-9.2** Rear window and rear side windows if used must be lexan. If A-Post panels are used they must be max 12" at bottom 90 degree straight up, and must be inside the bodyline.

## 10-10 CAR WEIGHT

**10-10.1** 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. All weight must be securely bolted with a minimum of 2 - <sup>1</sup>/<sub>2</sub>" diameter bolts. Weights must be painted white and must have the car number on each piece. Weights may be mounted on the outside of the frame between the front and rear tires, but may not be mounted on the outside of the frame behind the rear tires. Weight may not be mounted anywhere ahead of the front tires or inside the drivers' compartment.

10-10.2Officials may change weight requirements as necessary. The track scales are official weights.<br/>Camaro's, and Firebird's =3200 lbs Post Race 55.0% Left side anytime.Any other model of car =3100 lbs Post Race 55.0% Left side anytime.Vortec Head option =50 lbs additional to total weight.602 Crate Motor w/80541 4 barrel Carb =3200 lbs Post Race 55.0% Left side anytime.All post race weights will be allowed 1.5% for fuel burn off.

**10-10.3** No mechanical or hydraulic devices for shifting weight permitted.

#### **10-11 FRAME REQUIREMENTS**

- **10-11.1** No holes may be cut in frame rails to lighten. 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.
- 10-11.2 All front clips must be OEM stock, match the body being used, and maintain OEM specifications. Fabricated sub-frames are not permitted. Minimum fuel pump cut out allowed. No cutting on bottom of cross member. If you take to much material off you will be assessed a 50 lbs penalty. Rear clip may be reinforced, but stock configuration and location must be used. Chief Technical Inspector will adjust weight penalty if necessary. Cross member must be stock and in stock location.
- **10-11.3** No X frame connectors of any type allowed. Unibodied cars may connect the front and rear sub-frames parallel to the wheelbase.

## 10-12 ROLL BARS

- **10-12.1** Only round steel tubing 1 <sup>3</sup>/<sub>4</sub>" inch x .095" roll-over bars minimum are mandatory and must be approved by LVMS Officials. Low carbon or mild steel recommended. Roll cage must be welded to the frame in a minimum of 6 points. On unibodied cars, the 4 main cage uprights must be fastened to the floor with a minimum of 3/16" thick plate top and bottom. Plate must be a minimum of 4" square, with at least 4 3/8" grade 8 bolts at each location. The driver's side must have a minimum of 3 horizontal bars, with 2 vertical bars connecting all horizontal bars together, connected to the A-pillar on one end and the B-pillar on the other end. Passenger side must have a minimum of 2 door bars (2 horizontal, 2 diagonal, or 1 diagonal and one horizontal) connecting the A-pillar and B-pillar. A windshield bar (Earnhardt Bar) from roof halo to dash bar is recommended.
- **10-12.2** Roll bars must be padded anywhere driver may come in to contact with the bars.
- 10-12.3 LVMS requires the installation of steel door plates, 16 gauge or .060" thickness metal, must be securely welded to door bars on drivers side, highly recommend 10 gauge or 1/8" thick steel. 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.

## **10-13 GROUND CLEARANCE REQUIREMENTS**

**10-13.1** No part of the Chassis, Body or Weights shall be lower than 4" with driver in the car at any time when measured in tech inspection. 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.

### **10-14 WHEELBASE & TREAD WIDTH REQUIREMENTS**

- **10-14.1** <u>Minimum wheelbase is 108".</u> Wheelbase must be within 1" on the opposite side of the car but must be a minimum of 108".
- 10-14.2 Tread width measurement will be made by track officials by using a hoop that the vehicle will driver through. Only LVMS official measurements are final.All cars must have a maximum of 78" tread width measured from the farthest point of the outside of tire to the farthest point of the outside of tire on the opposite side.

#### 10-15 SUSPENSION

- 10-15.1 Front springs must remain in stock location. Springs may be cut, heated, or changed. No coilover springs. Weight jacks are allowed front and rear, may not be adjustable from the drivers' cockpit. Sway bars must be OEM type one-piece steel; must be mounted solid on the frame and may mount in any manner to the lower A-arms. No Heim joints ends permitted. Howe type "Slapper" bars ok. Rear sway bar will not be permitted. Lower A-arms must be stock OEM for make of vehicle being used (Chevy to Chevy, Ford to Ford) and mounted in stock location, both lower A-arms must be the same lengths. No offset bushings or A-arm altering permitted. Upper tubular A-arms must be steel 1 piece, either steel or aluminum shafts allowed (no slugs or bearings). No Heim end A-arms. Stock upper A-arms, if used, may not be altered. Aluminum spacers are allowed to adjust caster and camber. Spindles must be stock OEM for make of vehicle being used. Any OEM Factory production type of ball joint may be used. No "Mono Ball" ball joints. Interchanging of ball joints between manufacture lines will be permitted. No adjustable type of ball joints will be permitted.
- **10-15.2** Stock upper control arm mounting may be moved for caster/camber, but front and back factory bolt holes must remain stock height.
- **10-15.3** All rear suspension mounting points must remain in stock location. Either rear coil or leaf springs allowed, not both. Rear spring mounts must be in stock location. 4-link rear suspension arms must mount in the factory mounts as produced from the factory, and may not be lengthened, shortened, or re-enforced. No transverse spring allowed. Lowering blocks on leaf springs are permitted. No spring rods on top link and/or trailing arms. Panhard bars are permitted.
- **10-15.4** Suspension must have a minimum of 2" of travel. The use of Bump Stops or coil binding is not permitted. All 4 shocks must have full use of the manufactures advertised travel of the shock being used.
- 10-15.5 Magnetic steel-bodied, racer rebuildable/revalvable shocks allowed. No dial/click type/external adjustable shocks allowed. Shock may not be modified or altered from its standard design. No coil over, air or remote reservoir shocks will be permitted. No Schrader or bladder type valve allowed. Aluminum shocks are not permitted.
- **10-15.6** Shock claim rule: Any licensed competitor running in that day's event may claim the shock(s) of another competitor following the completion of the event for \$150.00 per shock. Claims must be made within 10 minutes after the completion of the feature event by giving the tech inspector a sealed envelope with the correct amount in cash. Failure to sell the shocks will result in disqualification from that event and a suspension of the next two (2) super stock events. LVMS official will be present during to removal process and will mark shocks as they are taken off of claimed vehicle. Claims will not be accepted on the final night of points racing. Claimed shocks must be used by claimant next race. If claimant does not use the claimed shocks in the next race the claimant will be fined \$250.00 and suspended for 1 race.

### **10-16 STEERING COMPONENTS**

**10-16.1** Steering must be stock and in stock location. Steering box may not be moved. Steering quickners are allowed. OEM rack and pinion permitted. Quick release coupling on steering wheel is recommended. A pad of at least two (2) inches must cover the steering wheel hub. Steering column must be collapsible, U-joints are acceptable. OEM drag-links only, no slugs allowed in the drag link. Outer tie rod ends and inner tie rod ends must be non-adjustable stock OEM type.

## **10-17 WHEELS and TIRES**

- 10-17.1 All cars must compete on 15" steel wheels with a maximum of 8" wide and a minimum of 19 lbs. Maximum <sup>3</sup>/<sub>4</sub>" wheel spacers may be used. Only 1 valve stem allowed per wheel. No wide-five adapters, no wheel weights or bleeder valves allowed. Wheel studs must be 9/16" minimum with 1" minimum lug nuts. Wheel studs must extend past the lug nut a minimum of 2 threads.
- **10-17.2** All cars will run LVMS tires purchased from LVMS tire dealer. No shaving, grinding, cutting, softening, conditioning, siping, or grooving of tires allowed. A minimum durometer reading may be enforced at any time. Tire limitation rules apply.
- 10-17.3 LVMS has a "Tire limitation rule" in an effort to help lower the costs associated with racing by limiting the amount of tires any competitor may purchase. <u>The tire limitation rule is only in affect for the tires that are eligible to race on, not practice on.</u> 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 5 new tires. The first event will be the only opportunity to purchase more than 1 tire 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 Stock event, each competitor who has a car eligible and ready for competition will be allowed to record 1 tire. 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 1 tire. Under no circumstance will an owner, competitor, or his/her agents be allowed to record more than 1 tire per race after Opening Day. Each tire will be branded, logged, and recorded by LVMS Tech Officials. It is the driver's sole responsibility to record the events tires with 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 4 new tires.
  - In the event that a competitor flattens or damages more than one tire in an accident, only 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.

## **10-18 GENERAL ENGINE REQUIREMENTS**

**10-18.1** The engine must match brand of chassis being used (i.e.: Chevy to Chevy, Ford to Ford). All engine parts must be as per make. GM to GM, Ford to Ford, etc.

10-18.2	<u>Block</u>	<u>Stroke</u>	Rod length	Max. Bore	Max. C.I.
	Chevy	3.48	5.700	4.060	360
	Ford	3.50	5.956	4.060	361
	Dodge	3.58	6.123	4.030	365
10 10 2	Maximum compression ratio is 10.1				

**10-18.3** Maximum compression ratio is 10:1.

**10-18.4** Engines can have a stock or racing designed oil pan. An added windage tray or internal baffles may be added to the oil pan. A <sup>3</sup>/<sub>4</sub>" plug must be installed in the oil pan for inspections, 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.* 

- **10-18.5** Engine block must be stock cast iron only. Bow-tie, SVO, MOPAR, or aftermarket blocks are not permitted.
- 10-18.6 Factory OEM cast iron, steel, or aftermarket crankshafts only and must maintain OEM specifications for block being used. Crank must weigh a minimum of 50 lbs. Knife-edging or lightening the crankshaft is not permitted. No "stroker" cranks permitted. Rod journals may not be ground beyond .040" undersize.
- **10-18.7** Connecting rods must be I-beam solid steel and exactly match OEM specifications for block being used. Aluminum, titanium, stainless steel, H-beam or hollow rods are not permitted. Connecting rods may be balanced and the use of aftermarket rod bolts is permitted.
- **10-18.8** Cast or forged aluminum pistons permitted. Press in or floating wrist pins are permitted. A minimum of three (3) rings per piston is required. Pistons may not be altered from original specifications.
- **10-18.9** Camshaft must be a solid steel lifter type with a maximum lift of .450", 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 valve guides are permitted. Stock-type timing chain and gears only permitted. No belt driven or gear driven timing systems permitted.
- **10-18.10** Only cast iron stock OEM production cylinder heads are permitted. No angle spark plug heads permitted. On Vortec heads, must have stock diameter valve springs. Part number must be clearly visible and unaltered. No angle milling, port matching or grinding is permitted. The heads may be surfaced/milled only to true the gasket surface. No chemical milling or porting is permitted. No alterations may be made to the bowl, port or runner area. High-performance heads such as Bow-tie, SVO, MOPAR or Dart are not permitted. Maximum steel intake valve size is 1.940" and maximum exhaust steel valve size is 1.500" for GM engines. Maximum intake size is 2.020" and maximum exhaust valve size is 1.600" for Ford and Chrysler engines. Studded heads are permitted, stud girdles are permitted.
- **10-18.11** Stock cast iron or mass produced aluminum intake manifolds are permitted. Vortec heads must run a dual plane intake manifold, dual plane intake manifold must have a full divider. Intake manifold must be readily available. Intake manifold may not be modified in anyway i.e: painting, acid-washing of ports, port-matching or removal of any materials on intake. The use of carburetor spacers is not permitted, however the use of a maximum 1" straight through adapter may be used on 4 barrel intake manifolds. Maximum thickness of both gaskets and 1" adapter is 1<sup>1</sup>/<sub>4</sub>" maximum.
- **10-18.12** The use of GM 350HP Factory Sealed Circle Track Crate Engine P/N 88958602, 88869602, or 19258602 is permitted with the Holley 80541 650 carburetor.
- **10-18.13** All crate engines must be factory sealed at the intake manifold, cylinder head, front cover and oil pan. It is recommended that it also has the IMCA seals on it. Any crate engine that has missing or tampered with seals will be deemed illegal, driver will be fined, and engine will be confiscated by LVMS officials.
- **10-18.14** Any evidence of tampering will result in tear down, if driver refuses tear down it will result in disqualification and confiscation of engine by LVMS officials. LVMS has the right to run cars on a chassis dyno to find out if engine has been tampered with.

- **10-18.15** Engine must remain sealed at all times. Any engine altered or modified in any way without prior written approval of LVMS officials, will result in permanent suspension of that driver from all weekly racing series divisions at The Bullring for no less than one calendar year and a fine. This includes but not limited to seal bolts, valve springs, rocker arms, shimming altering, balancer, oil pan, or relocating any part from its original configuration.
- **10-18.16** Any competitor that is determined by LVMS officials to have tampered with the factory seal on their crate engine will be fined \$3000.00 plus all purse monies earned for the season. The competitor will lose all season points and be suspended for the remainder of the season. All suspensions must be served and all fines paid before the competitor is eligible to compete at LVMS.
- 10-18.17 Any oil is permissible. No oil coolers. No accumulators.
- **10-18.18** All engines must be located so the center of the forward most spark plug hole is even with the center line of the front upper ball joints. Center of crankshaft must be centerline of the inside front clip. Engine ground clearance will be measured from center of crankshaft at pulley mounting. A minimum of 10" from center of crankshaft to ground must be maintained at all times measured with the driver in the car.

#### **10-19 CARBURETOR**

- 10-19.1 A single cast Holley 500 CFM #4412; 2-brl carburetor must be used. All cars must have a minimum of two (2) springs on throttle return cable. Holley Ultra XP Carburetor or equivalent not permitted. Holley 650 CFM #80541 4-brl carburetor is permitted on factory sealed crate engines.
- 10-19.2 No polishing or grinding permitted. The choke assembly must be removed, and all screw holes must be permanently sealed. The choke horn must not be removed or altered. Boosters may not be changed. Size or shape must not be altered. Height must remain standard. Venturi area may not be altered in any manner. Casting ring must not be removed. Cam and accelerator pump may be replaced with aftermarket units.
- 10-19.3 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 venturi 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. No automatic jet systems.
- **10-19.4** Air boxes, ducts, baffles, scoops and/or hole in the hood to direct air to the air cleaner are not permitted.

#### **10-20 AIR CLEANER AND FILTER**

- **10-20.1** Only dry, round paper element filters are permitted for use. All air shall be filtered through element in an even and consistent manner without obstruction. No tubes, funnels, or any device that may control the flow of air is permitted inside of the air cleaner or between the air cleaner and carburetor. Absolutely no ducts or baffles permitted on or leading to the air cleaner or element.
- **10-20.2** Air cleaners may not be removed during practice or competition. Air filter housing must be round and made of metal, gasket or sure seal permitted between the carburetor and the air cleaner.

## 10-21 ELECTRICAL

- **10-21.1** Only battery powered HEI's with coil in cap allowed on GM products, all other cars must run with HEI equivalent OEM ignition system. No magnetos or high performance ignition systems permitted. Any brand of spark plugs may be used. Alternators are allowed and must be mounted on the engine. All cars must be self-starting. Starters may be after market or OEM and must mount in the stock location.
- **10-21.2** 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.
- **10-21.3** 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.

## 10-22 ENGINE COOLING

- **10-22.1** 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.
- **10-22.2** Only V-type or serpentine belts and pulleys are permitted. Aftermarket aluminum pulleys are permitted.
- **10-22.3** Mechanical fan or electric fans allowed. No fiberglass or aluminum flex fans permitted. All fan assemblies must have fan shroud.
- **10-22.4** 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 windshield enabling the driver to see overflow.
- **10-22.5** 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 bumber.
- 10-22.6 NO Anti-freeze or similar products permitted. Water wetter permitted.

# **10-23 ENGINE EXHAUST SYSTEM**

- **10-23.1** Unaltered log style stock cast iron exhaust manifolds allowed. No center dump exhaust manifolds unless on Chrysler products.
- 10-23.2 Headers must be a maximum of 1 5/8" tube, down and back. No over the top, step, 180s, Tri Y's, cones or pyramids. Only one gasket, maximum .075" thickness, may be used between the cylinder head and header. Header must bolt to head. Exhaust pipes no larger than 3" outside diameter. Two-into-one collectors are allowed. All exhaust must exit behind driver.

## 10-24 DRIVE TRAIN

- **10-24.1** Stock steel or aftermarket steel bellhousing accepting a block-mount starter with a stock-style flywheel. Bellhousing must cover a least 270 degrees of the top of the clutch unit. 1 <sup>1</sup>/<sub>4</sub>" inspection hole must be drilled directly beneath the clutch unit or must have a removable cover.
- **10-24.2** Stock 10" push-style clutch required and must be steel disc assembly. Only steel flywheels permitted. No aluminum within clutch assembly is permitted. No lightening, milling, or shaving of the flywheel is permitted. Ring gear must be 153 tooth or larger for Chevy and 157 tooth or larger for Ford. The minimum weight of the clutch, flywheel, and bolts shall be 30 lbs. No "slipper" or "centrifugal" clutch assemblies permitted.
- **10-24.3** Transmission must be stock OEM factory standard or automatic transmission. Automatic transmission must have fully functional stock torque converter for make/model of car. All transmissions must be located in stock location. No removing, lightening, or altering of transmission parts permitted.

- **10-24.4** It is mandatory that two 360 degree steel brackets, no less than 2" wide and ¼" 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 2" OD minimum, made of steel, and painted white.
- **10-24.5** Any OEM passenger car or truck rear end is permitted. Floater rear end hubs recommended. No cambered axle housings. No aluminum permitted in the rear end, with the exception of drive plates, washers, crush collars, and spacers.
- **10-24.6** Only steel full-spool, steel mini-spool, or welded spider gears permitted. No "slip type" differentials allowed. No polishing or lightening of ring, pinion or spool. No traction control devices allowed. Only steel axle housings and 3rd members permitted. No gun drilled axles.

# 10-25 BRAKES AND BRAKE COOLING

- **10-25.1** Brakes must be installed on all four wheels and must lock up all four wheels. No floating brake calipers permitted. Only cast iron stock OEM calipers allowed. No brake gauges allowed. No electric brake fans permitted. Hub mounted cooling fans (Ultra Cool Brake Fans) are permitted. One proportional valve allowed; the valve must be between the front and rear brakes only. Steel or aluminum hats on rear allowed for rear disc conversion. OEM or aftermarket master cylinders are permitted. Only one (1) master cylinder may be used.
- **10-25.2** Brake lines must be outside frame rails and visible.

# 10-26 FUEL & FUEL CELLS

- **10-26.1** 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.
- **10-26.2** Fuel cells must be opened to the ground. Fuel cell must have a minimum of 10" ground clearance at all times. The use of a commercially manufactured fuel cell and container is required. Technical inspectors will reject any fuel cells, containers, or check valves that appear to be damaged or do not function properly. 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.
- 10-26.3 Fuel cell container must be installed equal distance between 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. Only one fuel line permitted from fuel cell to fuel pump. If run through driver's cockpit, fuel line must be in a tube mounted no more then ½" off of floor pan.
- **10-26.4** Fuel cell protector required, no more than the width of the frame rails.
- **10-26.5** Only OEM type manual fuel pumps in stock location are permitted. No electric fuel pumps.
- 10-26.6 One metal gasoline filter may be used. No plastic or glass filters permitted.

# **10-27 SAFETY EQUIPMENT**

- **10-27.1** Helmets are required and must be Snell SA2005 or newer. Helmets must be worn at all times while on the track surface. Helmet must accompany vehicle at time of inspection. Fire suits, fire resistant gloves, fire resistant shoes and head and neck restraint system required. Fire resistant underwear recommended.
- **10-27.2** Only purpose built aluminum racing seats approved by LVMS officials permitted. It is recommended that all seats have padded rib protectors and leg extensions on both sides. A padded head rest approved by LVMS officials is mandatory. Seat must be mounted inside the frame rails and in front of rear tires to the roll cage. Seat must be mounted to the roll cage, not the floor pan.

- **10-27.3** Five point racing safety belts required. Metal to metal buckles are required on 3" shoulder and 3" lap belts. Seat belts must be mounted securely to the roll cage with a 3 years old maximum.
- **10-27.4** Head and Neck restraint systems highly required. Neck brace not allowed. Rib type window net (minimum 16" X 20") on driver's window is required and must be in good condition. 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.
- **10-27.5** It is mandatory that all vehicles have a 2-lb. fully charged fire extinguisher. Gauge must be complete and in good operating condition, extinguisher must be securely mounted and accessible within the reach of the driver with fully seat belted in the vehicle.

#### **10-28 ACCESSORIES**

- **10-28.1** No on-board computers, automated electronics, record keeping devices except tachometers. No digital readout gauges allowed.
- **10-28.2** Wink type 3 dimensional mirrors with a maximum width of 26" will be permitted. An additional left side mirror may be fitted; however it must meet LVMS official's approval.
- **10-28.3** 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 then 168" will be docked 1 position for the race that the infraction accrued.
- 10-28.4 Radios for this division between spotter and driver are permitted. RACEceiver is <u>required</u> 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.

#### **10-29 Out of Town Cars**

**10-29.1** LVMS invites all Out of Town competitors. Due to the differing levels of competition, LVMS reserves the right to adjust gear, total weight, and/or bias on an individual basis.