

OFFICIAL 2009 - 2011 SPECIFICATIONS FOR NASCAR SUPER LATE MODEL

NOTICE: ALL EQUIPMENT IS SUBJECT TO THE APPROVAL OF NASCAR TECH OFFICIALS. NO EQUIPMENT WILL BE CONSIDERED AS HAVING BEEN APPROVED BY REASON OF HAVING PASSED THROUGH INSPECTION. ALL NASCAR MEMBERS ARE REQUIRED TO BE FAMILIAR WITH ALL TOYOTA SPEEDWAY AT IRWINDALE TRACK RULES AND NASCAR All-American Series Rule Book RULES PERTAINING TO YOUR DIVISION.

Any modifications not covered in these rules will not be allowed unless approved by the Toyota Speedway at Irwindale Tech Official.

1. COMPETING MODELS

- (a) Open to stock appearing automobiles provided they comply with, and adhere to, specifications as outlined for this division.
- (b) Competing models as selected by Toyota Speedway at Irwindale. The following cars 2004 through 2009 are the only eligible models approved for competition:
 - (1) CHEVROLET, Monte Carlo.
 - (2) DODGE, Intrepid, Charger.
 - (3) FORD, Taurus, Fusion.
 - (4) PONTIAC, Grand Prix.
 - (5) TOYOTA, Camry.

2. GENERAL CAR AND BODY REQUIREMENTS

(a) General Car:

- (1) The ABC (Approved Body Configurations) Body Rulebook is the standard guideline used at Toyota Speedway at Irwindale. Refer to the current ABC Body rulebook for all body installations and guidelines. (<http://www.abcbodies.com>).
- (2) All body parts used must be manufactured by Five Star Car Bodies® or Aluminum Racing Products, Inc (ARP). All body parts that are not manufactured by Five Star or ARP must have prior approval by Toyota Speedway at Irwindale. Any body part used, not manufactured by Five Star or ARP subject to weight penalty.
- (3) Cars must be neat appearing. All panels must fit properly and be free of sharp edges. All panels must be painted.
- (4) The bodies will be required to fit Toyota Speedway at Irwindale approved ABC overall body template(s). All bodies will be subject to the Official Referee and must meet the specifications indicated by the ABC rulebook.
- (5) Bodies must be standard as produced by aftermarket manufacturer metal or fiberglass.
- (6) All attachments must be as per ABC Body specifications.
- (7) Dzuz fasteners must not be painted. Dzuz fasteners must remain original and untouched.
- (8) Flat or slab sided bodies not permitted.
- (9) Carbon Fiber or Kevlar body parts or fasteners not permitted.
- (10) Ceramic-coated parts not permitted.
- (11) Any 2003 and earlier year body, must be manufactured by Five Star Race Bodies®, be subject to a weight penalty, comply with Five Star specifications, and must fit Toyota Speedway at Irwindale's approved nose/body templates within 1/2-inch tolerance.
- (12) Down force and high performance type bodies not permitted.

(b) Floorboards:

- (1) All holes in floor must be sealed.
- (2) Floorboard must be a minimum of 24-gauge steel.
- (3) Floorboard and tunnel must be welded in place and show good workmanship. Subject to the approval of Toyota Speedway at Irwindale Tech Officials.

(c) Interiors:

- (1) Interior must be completely enclosed.

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- (2) Interior panels must be trimmed neatly around roll cage and sealed for fire protection.
 - (3) Interiors panels must be painted and must fit properly and free of sharp edges.
 - (4) Interior panels except crush panels must be fabricated of 24-gauge steel minimum and it is recommended that all interior panels be welded in place.
 - (5) Interior holes must be sealed.
 - (6) Interior door shelves not permitted. Panels must direct toward floor tunnel.
 - (7) Interior upper door crush panels at right and left side with a flat shelf not permitted.
- (d) **Overall Car Weight:**
- (1) All cars will weigh 3,000 pounds including driver before the race effective April 18, 2009. Optional Spec Motor: minimum car weigh 3,075 pounds including driver before the race.
 - (2) Minimum weight all cars, with cast iron cylinder heads, 3,025 pounds including driver before the race.
 - (3) Left side weight will be 58.1% maximum including driver, with both hands on steering wheel.
 - (4) All cars will be weighed on Toyota Speedway at Irwindale's scales. These scales will be the only method for determining a cars weight.
 - (5) AT THE DESCRETION OF THE PROMOTER AND TRACK OFFICIALS, ADJUSTMENTS SUCH AS BUT NOT LIMITED TO OVERALL CAR WEIGHT/PERCENTAGES, ETC. MAY BE IMPOSED TO EQUALIZE COMPETITION.
- (e) **Added Car Weight:**
- (1) Added weight must be in block form of no less than ten (10) pounds, no pellets, sandbags, etc.
 - (2) All added weight must be painted white and the car number must be clearly visible on each piece.
 - (3) All added weight must be securely bolted in place with a minimum ½ inch diameter, grade 5 bolts with locking nuts. No aluminum brackets.
 - (4) Weight may not be added to the outside of the frame rails, except when lead is enclosed in a weight tray.
 - (5) Lead enclosed in a weight tray must be immobile and must have two 3/8-inch grade 5 bolts as a secure stop at each end of the weight tray.
 - (6) Weight may not be located inside the driver's compartment.
 - (7) Any lead mounted behind the rear axle must be a minimum of two (2) inches forward of the rear of the fuel cell.
 - (8) Weight added for a penalty must be located on the right frame, forward of the bellhousing, and behind the right upper ball joint. The weight shall be white with yellow strip in color. Any car not maintaining the proper penalty weight will be disqualified.
 - (9) Dislodged weight cannot be returned to cars for weighing after an event.
 - (10) Weight shifting devices shall not be permitted.
 - (11) Cars losing ANY added weight or failing to bolt weight in a safe manner in the car will, at a minimum, pay a \$10 per pound penalty.

3. DETAILED CAR BODY REQUIREMENTS In addition to the car body requirements in section 2.

- (a) **Front Air Dam and Nose:**
- (1) Holes for ducting are allowed in the front air dam for air inlet only.
 - (2) All support brackets and bumpers must be mounted behind nose.
 - (3) Front nerf bars, or external reinforcing bars are not permitted.
 - (4) Reinforcement or added tubing may be placed behind approved nosepiece.
 - (5) The nose may not be altered with no trimming, or attachments, to enhance aerodynamic performance.
 - (6) Nose widths must remain stock as per ABC Body rulebook. Sectioning or spacers not permitted.
 - (7) The nose or side valance can be no more than 1/2-inch wider than the outside crown of the tire on each side at anytime.
 - (8) Where nose meets front of hood at centerline of body, it must be mounted as per ABC Body

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rulebook from the ground.

- (9) An adjustable Five Star body like material piece may be attached to the lower edge of the nose solely for the purpose of allowing the front bumper to conform to the 4-inch ground clearance rule. This piece must conform to the body similar to the stock Five Star nose and may not extend back beneath the nose of the car. Toyota Speedway at Irwindale Tech Officials must approve all attachments.

(b) **Rear Spoiler:**

- (1) Spoiler dimensions must comply with the ABC Rule Book.
- (2) Rudders or braces in front of the spoiler are not permitted. Braces allowed behind the spoiler and may be adjustable.
- (3) Spoiler must be fabricated of a material that will not allow it to flex or in any way deform during competition.
- (4) A minimum of four (4) inches of the top of the spoiler must be made of clear non-tinted, Lexan or a similar non-flexible material.
- (5) No decals will be allowed on the spoiler at anytime.
- (6) Spoiler must follow the contour of the rear deck lid. Mounting must be approved by Toyota Speedway at Irwindale Tech Officials.
- (7) The spoiler must be slotted ½ inch in the center for each make of car to fit the NASCAR overall body template.

(c) **Windshields:**

- (1) A clear (non-tinted) Lexan polycarbonate windshield must be used. Minimum 1/8-inch thickness.
- (2) A minimum of two evenly spaced 1/8 inch x 1 inch metal straps, must be mounted securely to the dash and roof panel, inside of the windshield, to secure windshield in place. These supports must not block the vision of the driver.
- (3) Angle of windshield must meet Toyota Speedway at Irwindale template tolerance.

(d) **Rear Window:**

- (1) The rear window must be used and must be made of clear Lexan polycarbonate with a minimum 1/8 inch thickness.
- (2) A minimum of two 1/8 inch x 1 inch evenly spaced metal straps must be bolted to the roof at the top and deck support panel at the bottom to secure window in place.
- (3) During competition the rear window must maintain stock configuration.
- (4) Angle of rear window must meet Toyota Speedway at Irwindale template tolerance.

(e) **Side Windows, Quarter Windows, Air Deflectors and Net:**

(1) **Side Window and Quarter Windows:**

- (A) Quarter windows must be located in stock location, clear Lexan polycarbonate recommended.
- (B) Quarter windows may be used for air intake only.

(2) **Deflector and A-post:**

- (A) A-post deflector must be of clear Lexan polycarbonate and may not protrude outward.
- (B) B-post air deflectors are not permitted.
- (C) B-post leading edge may be use as an air intake only.
- (D) No side door windows may be used; however an air deflector may be used to support the windshield A-pillar. The deflector, when measured horizontally, must not be longer than twelve (12) inches in length.

(3) **Window Net:**

- (A) One (1) inch mesh window net mandatory. Permanently mounted at bottom with approved quick release at top.
- (B) Window net must be within 5 years of manufacture date.
- (C) Window net must have a manufacture's date tag or will not be permitted.
- (D) The latch must be mounted at the top in the front to roof bar or at the top of front roll bar leg, near roof bar, and release from the inside.

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- (E) All window screen mounts must be a minimum 1/2 inch diameter solid steel rod on the bottom and a minimum one (1) inch wide by 3/16 inch thick flat steel or a minimum 1/2 inch diameter solid steel rod on the top, with mounts welded to the roll cage.
- (f) **Rear View Mirror:**
 - (1) All cars must have one (1) rear view mirror placed at the top and center of the windshield.
 - (2) One left side 4-inch or smaller spot mirror permitted; however, it must be acceptable to Tech Officials and must not extend outside of the car at any time.
 - (3) No mirror may extend outside of the body.
- (g) **Dash Panel:**
 - (1) All cars must have a complete dash with no offset.
 - (2) Dash panel may be fabricated from aluminum.
- (h) **Firewalls:**
 - (1) Front and rear firewalls required. All firewall holes must be sealed and covered.
 - (2) Full firewall must be constructed with a minimum 24-gauge steel sheet metal.
 - (3) Fuel cell compartment firewall must be constructed of 24-gauge steel, and completely seal driver's area from fuel cell area.
- (i) **Doors:**
 - (1) Door panels must be fastened in a manner acceptable to Tech Official.
 - (2) All doors must be securely fastened to fender and quarter panel.
 - (3) Doors must retain factory configuration.
 - (4) All doors sides must be mounted as per ABC Body rulebook to the contour of tire.
- (j) **Fenders:**
 - (1) All fenders must be mounted as per ABC Body rulebook, and not concaved or deformed behind tires.
 - (2) Tires and wheels must remain under body.
 - (3) All fenders must be mounted to front of door with rear of fender to form to the crown of tires.
 - (4) Fenders may only be trimmed as per ABC Body rulebook at wheel opening for tire radius and minimal tire clearance only.
- (k) **Quarter and Rocker Panels:**
 - (1) Quarter panels must be mounted as per ABC Body rulebook.
 - (2) Quarter panels behind tires cannot be pulled in or deformed.
 - (3) Quarter panels at B-post must retain stock dimensions from Five Star specifications at roof location from side to side.
 - (4) Rocker panel skirts must hang vertical and not bow out.
- (l) **Grilles:** Openings must retain the same shape and size as the stock production.
- (m) **Hood:**
 - (1) Hood must maintain original configuration, however a molded in, stock appearing, hood scoop may be used. Maximum height of scoop, when measured from flat section of hood, shall be four (4) inches. Opening must face the windshield. All installations are subject to approval of Toyota Speedway at Irwindale Tech Officials.
 - (2) Hoods with scoop must maintain a maximum of 3-inch x 26-inch opening.
 - (3) Hoods or cowls may not be cut or altered in anyway from manufacturer, except for a 3-inch by 26-inch opening at center at the base of the windshield, and to hood must seal to windshield.
 - (4) Hoods must be held in place with hood pins. A minimum of four (4) in front and two at the rear of the hood (unless hinged) are mandatory.
 - (5) Hoods must lie flat on fenders and must remain sealed to windshields at all times.
 - (6) All cold air boxes and air cleaners must fit under hood and not be visible.
 - (7) Five Star cowl air intake opening between the hood and the windshield, must retain the original opening dimensions and may not be modified. Any body with a cowl air intake opening may not have any other openings in the hood or scoop.
- (n) **Roof:**

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- (1) All roofs must be comply with the ABC specifications
 - (2) Roofs must fit template as per ABC Body rulebook.
 - (3) No crowning or altering shape of roof.
 - (4) All roofs must be stock configuration and mount in stock location with no alterations.
- (o) **Rear Deck Lids:**
- (1) The rear decklid must comply with ABC specifications.
 - (2) Deck lid area must remain flat to the spoiler as per ABC Body rulebook.
 - (3) Deck lid area must remain standard in all respects. Bodylines and shape of the deck lid must not be changed.
 - (4) There must be two (2) tow hook pick up points clearly marked under deck lid area.
- (p) **Bumpers and Rear Filler Panel:**
- (1) Rear bumpers in top quality condition are required at all times.
 - (2) Filler panel above and below rear bumpers must be complete with no holes or louvers, and must be riveted to rear bumper.
 - (3) No cutting, trimming, or holes permitted in bumper cover.
 - (4) All rear bumper covers must remain with manufacture's lower lip at bottom.
 - (5) The rear bumper may not be altered, with no trimming, holes or attachments permitted.
 - (6) Rear nerf bars, or external reinforcing bars are not permitted.
- (q) **Identification and Marking:**
- (1) NASCAR reserves the right to assign or restrict the display of decals, identification, and advertising on race cars.
 - (2) Numbers must be at least 18 inches high and neatly lettered on both sides of the car in the center of the door.
 - (3) The top front corner of each door should be available for the placement of series sponsor decals.
 - (4) A number 24 inches high must be painted on the roof, reading from the passenger side.
 - (5) Decals are permissible in place of painted numbers.
 - (6) Gold or Silver foil numbers are not permitted.
 - (7) All Super Late Model race car numbers will be issued through the track. Absolutely NO "x"s or duplicate numbers allowed at anytime.
 - (8) Block type numbers six inches in height must be attached to the right front headlight area, and also the right rear taillight area.
 - (9) All cars must display an approved 8 inch white car number decal in the upper-right (passenger-side) of the front windshield.
 - (10) Contingency sponsor decals must be in place to receive awards, or prize money from contingency sponsors.
 - (11) Series and contingency sponsor patches must be worn to receive awards.

4. GENERAL ENGINE REQUIREMENTS

- (a) Optional Spec Motor: GM CT525 LS3 Circle Track crate engine has been approved for competition.
- (1) Maropulos Racing Engines (MRE) 805-520-4899; 4930 Leeds St., Simi Valley, CA 93063. MRE is the only approved supplier to provide a completed spec engine package. The GM LS3 CT525 completed engine from MRE includes engine and approved components (excluding exhaust headers and clutch) and can be purchased for \$11,500 plus sales tax.
 - (2) Competitors may also purchase the GM LS3 CT525 base engine from any approved GM Performance Parts dealer / supplier with MRE supplying and installing the completed package components.
 - (3) Spec engine specifications and requirements are as follows:
 - (A) GM LS3 CT525 6.2L racing engine P/N 19171821. The base engine is rated at 525hp and 471 lb-ft of torque using aluminum block, high-flow LS3 rectangular-port head cylinder heads and includes a carburetor intake manifold and a 6-quart racing oil pan.
 - (B) 650 Holley 4bbl carburetor P/N Hly-0-80541-2 (no modifications)

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- (C) Ignition controller P/N 19171130 set at 6600 RPM MAX
 - (D) Holley electric fuel pump (P/N Hly-12-802-1 must be wired with double relay wiring harness with oil pressure safety switch to ensure fuel pump will shut off when engine is not running.
 - (E) Howe header P/N H11209 is the only approved header package for use with this engine.
 - (F) 4.50 gear rule.
 - (G) No close ratio transmission may be used to circumvent the gear rule.
 - (H) Engines may be re-dynoed at MRE at any time to monitor adherence to spec rules.
 - (I) Minimum car weight specified in Section 2, General Car and Body Requirements.
- (b) Only engines of a type approved by Toyota Speedway at Irwindale are allowed. Engines may be interchanged among make lines. The following characteristics must be identical with the production engine upon which recognition of type has been granted. No coating on any internal engine surface or components, including but not limited to ceramic or Teflon.
- (c) All parts listed below must originate from stock production castings and forgings that have been machined according to the normal machining schedule utilized for standard production parts only:
- (1) Cylinder Block
 - (A) Material
 - (B) Number of cylinders
 - (C) Angle of cylinders
 - (D) Number of main bearings and type
 - (E) Integral or separate cylinder sleeves
 - (F) Location of camshaft
 - (G) Location of crankshaft
 - (H) Overall configuration
 - (2) Cylinder Head
 - (A) Material
 - (B) Number of valves per cylinder
 - (C) Type of combustion chamber
 - (D) Location of spark plug
 - (E) Orientation of spark plug
 - (F) Arrangement of valves
 - (G) Valve location in relation to the cylinder bore
 - (H) Type of valve actuation
 - (I) Number of intake ports
 - (J) Number of exhaust ports
 - (K) Center distances of intake ports referenced to the cylinder bore
 - (L) Center distances of exhaust ports referenced to the cylinder bore
 - (M) Shape of intake and exhaust ports at mating faces of manifolds
 - (N) Angle of port face relative to mating face of head to block
 - (O) Shape of intake and exhaust ports inside runners
 - (P) Firing order
 - (Q) Lifter bores
 - (R) Valve angle
- (d) No change from the Toyota Speedway at Irwindale approved standard production automobiles or component parts will be permitted except as specified in the following rules for engine preparation.
- (e) No titanium parts permitted except as allowed.
- (f) Chrysler engine specifications to be announced.

5. DETAILED ENGINE REQUIREMENTS

(a) Engine Location:

- (1) All engines must be located so the center of the forward most spark plug hole a maximum of one

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and one-half (1-½) inches behind the centerline of the upper ball joints. Ford and Chrysler engines may be set back as follows: All Ford and Chrysler engines must be located so the center of the forward most spark plug hole is a maximum of two and one-half (2-½) inches behind the centerline of the upper ball joints.

- (2) The centerline of crankshaft must be within one (1) inch of the centerline of the tread width.
- (3) A minimum ground clearance of 10 inches from center line of crankshaft pulley or balancer to ground must be maintained at all times, however the oil pan may be no lower than the cross member.

(b) Engine Ground Clearance:

- (1) Crankshaft centerline must retain a minimum of 10 inches at all times.

(c) Engine Mounts:

- (1) All engine mounts must be securely bolted.
- (2) Adjustable engine mounts are not permitted.

(d) Engine Displacement:

- (1) The maximum allowable cubic inch displacement at any time shall be 360. The maximum overbore allowed in any cylinder is .080 inches. Only V-8 engines are eligible for competition.
- (2) The formula used to determine static c.i.d. will be as follows: Bore X Bore X .7854 X Stroke = Cubic Inch Displacement of each cylinder. All cylinders added together equal the total cubic inch displacement of the engine. This is the only formula Toyota Speedway at Irwindale will use during an engine teardown. A P&G cubic inch measurement tool may also be used to evaluate cubic inches without teardown.
- (3) In all cases, compression ratio will be calculated by any means deemed proper by Toyota Speedway at Irwindale Tech Officials.
- (4) Cars may compete with a maximum 360.0 cubic inches, pushrod, calculated overhead valve, standard production V-8 engine.

(e) Engine Compression Ratio:

- (1) The term "11.1-1 compression ratio engine" shall mean any engine having a compression ratio of less than 11.1 to 1. The maximum compression ratio is 11.1 to 1 on all engines.
- (2) In all cases, compression ratio will be calculated by any means deemed proper by Toyota Speedway at Irwindale Tech Officials.

(f) Engine Block:

- (1) All engine blocks must meet the following requirements:
- (2) All engine blocks must be a product of the manufacturer of the Make being used in competition. Aftermarket or aluminum blocks not permitted.
- (3) Engine block must retain all standard external dimensions with the notable exception of the maximum allowable overbore and the surfacing of the block deck. Angle cutting of the block deck, or grinding or milling for weight reduction of the block is not permitted.

(g) Internal Changes:

- (1) Internal polishing of the engine block is allowed. Light deburring is permissible.
- (2) Screening of the intake valley area, for debris protection, is allowed.

(h) Piston/Rods:

- (1) Any three (3) ring piston may be used.
- (2) Only solid steel connecting rods allowed. Hollow beam, titanium, aluminum, or stainless steel rods are not to be used at any time.
- (3) All rods must maintain the minimum/maximum rod length listed:

	Minimum - Maximum
(A) Chrysler	5.700 - 6.250
(B) General Motors	5.700 - 6.250
(C) Ford Cleveland	5.700 - 6.250
(D) Ford Windsor	5.700 - 6.250

(i) Oil Pans and Coolers:

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- (1) All oil pans and coolers must meet with the following requirements:
 - (2) All oil pans must be made of steel and must be approved by Tech Officials.
 - (3) The oil pans must be a wet sump type and manufactured using a stock production type pan with only a sump reservoir added to the bottom. All bolt holes and flanges must be visible.
 - (4) Approved oil coolers are permitted.
 - (5) A one (1) inch diameter "inspection hole" located on the side of the oil pan accessible to inspect crankshafts and rods. Inspection plug (Moroso Part #23970) must be used. The inspection hole plug must be wire tied for safety.
 - (6) Skid plate may be used, not wider than the oil pan, subject to Tech approval.
- (j) **Cylinder Heads:**
- (1) To be eligible, the cylinder head must meet the following requirements:
 - (2) All cylinder heads must be Toyota Speedway at Irwindale approved and any modification must be submitted to the Director of Competition in writing before such modifications will be eligible for approval. Manufacturer's identifications and part numbers must remain on the part being used with no alteration. Any attempt to alter, change, or eliminate part numbers will result in that part's ineligibility.
 - (3) Eligible Cylinder Heads:
 - (A) Brodix Toyota Speedway at Irwindale spec cylinder Head part P/N SP CH Irwindale, SP FO Irwindale, and SP MO Irwindale, or equivalent.
 - (B) Chevrolet P/N 10134392, casting number 14011034.
 - (C) The only approved cast iron Ford cylinder head is P/N M6049-N351.
 - (D) All Chrysler cylinder heads and manifolds will need prior approval by Toyota Speedway at Irwindale.
 - (4) Titanium valve spring retainers and keepers are permitted.
 - (5) **Brodix Spec Cylinder Heads:**
 - (A) Any valve job will be allowed regardless of number or type of angles. All valve job cuts must be contained within the false valve seat insert only and may not at any time extend above or below the false valve seat insert into the aluminum surface of the cylinder head.
 - (B) Brodix Spec Heads must be run as produced by the manufacturer. Porting, polishing, removal of material, radiusing of edges, or any other kind of alteration shall not be permitted at any time.
 - (C) Milling and angle milling of the cylinder head to block mating surface shall be allowed. Upon completion, cylinder head valve angle must remain within one (1) degree of Brodix specifications. Compression ratio must remain as stated in Section 5.
 - (D) Valve seats and guides shall remain as produced by the manufacturer and in their original stock locations. Tapering, re-shaping, or any other alteration of valve guides shall not be permitted at any time.
 - (E) Valves must be identical in appearance and construction as an OEM type valve. Air directional devices or holes shall not be permitted on the valve surface. 11/32 stem diameters only. Undercut valves shall be permitted with a minimum diameter of .305.
 - (F) Maximum valve size as measured across the valve face are as follows: intake 2.080, exhaust 1.600.
 - (G) Titanium valves not permitted. Titanium spring retainers and keepers allowed. No hollow valves.
 - (H) Repairs of Brodix spec heads shall be allowed. Any structural bare head repair must be completed by and fully documented by Brodix. Brodix will repair, restore to stock specifications, and document all work performed. Documentation must be forwarded to and received by the Director of Competition before any event in which a repaired cylinder head competes. Failure to notify the Director of Competition in writing before an event shall result in disqualification from that event. No other repairs shall be permitted at any time.

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(6) **Cast Iron Cylinder Heads:**

- (A) The maximum of a three (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. Upon completion of the valve job, the bowl area under the valve seat down to the bottom of the valve guide must still be the same configuration as far as shape and finish as it was from the manufacturer. Surfaces and/or edges where the stone or cutter has touched must not be polished, smoothed, or radiused. No hand or CNC grinding, milling or polishing is permitted on any part of the head other than mentioned in stated rules.
- (B) 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.
- (C) All valves must be identical in appearance and construction as an OEM type valve. No air directional devices or holes will be permitted on any valve surface. OEM type stem diameters only. Undercut valves shall be allowed with a minimum diameter of .305. No hollow valves.
- (D) The maximum valve sizes as measured across the valve face are as follows:
 - Intake - Exhaust
 - (i) General Motors 2.055 - 1.625
 - (ii) Ford Cleveland 2.055 - 1.656
 - (iii) Ford Windsor 2.055 - 1.625
 - (iv) Chrysler 2.055 - 1.625
- (E) Cylinder head may be port matched a maximum of one-half inch (1/2 inch) into the intake port. Exhaust ports may not be altered.
- (F) Cylinder head valve angle must remain within one (1) degree of OEM standard production head.
- (G) Titanium valve spring retainers and keepers are permitted.
- (H) Titanium valves are not permitted.
- (I) External changes of any kind not covered within these rules are prohibited.
- (J) Internal polishing, porting, removal of metal, and/or any other kind of modification will not be permitted.

(k) **Crankshaft and Harmonic Balancer:**

- (1) Only standard steel production design crankshafts are permitted. If an aftermarket crankshaft is used, it must be similar in appearance and construction to an OEM crankshaft. Odd firing order or 180 degree crankshafts are not permitted.
- (2) Balancing is permitted.
- (3) Only steel or standard OEM steel type harmonic balancers are allowed. Minimum diameter of 6 inches is required on all balancers.
- (4) Stroke may be changed to a maximum of .020 inches, plus or minus, of the stock crankshaft stroke for the block being used.

(l) **Camshaft, Valve Lifters, and Rocker Arms:**

- (1) Any magnetic cast iron, magnetic steel camshaft using a straight barrel OEM diameter lifter will be allowed.
- (2) Camshaft bearing journals allowed not more than .120 inch over stock diameter.
- (3) Hydraulic or flat tappet camshafts allowed only. No roller lifter camshafts are permitted.
- (4) Gear drives not permitted.
- (5) Belt drives are allowed with a cover only.
- (6) Solid or hydraulic lifters are optional. Roller tappets, mushroom valve lifters, and any type of auxiliary valve spring system (i.e. Rev Kits) are not permitted.
- (7) Lifters must be the same size in diameter as original equipment.
- (8) Roller rocker arms are allowed. Offset, dual shaft, or shaft-mounted rockers are allowed. Stud

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girdles are allowed. Screw in rocker studs and guide plate may be installed but must remain in stock location. Stud girdles allowed.

(9) No roller camshaft bearings.

(10) All cars must declare at time of pre-race inspection the type of camshaft (cast iron or magnetic steel) used.

(A) For all (non-cast) magnetic steel camshafts a 25 lbs weight penalty shall be imposed. Failure to report steel camshaft will result in disqualification, loss of championship points and prize money earned for the event as well as further 50-championship point penalty for the current racing season.

(m) **Intake Manifold:**

(1) Edelbrock Victor Jr. Sportsman 2V, (P/N 2901 or 2940) intake manifold only. The manifold must remain as produced by the original manufacturer.

(2) The manifold must remain as produced by the original manufacturer. No drilling, or flow improvement work is permitted.

(3) The carburetor mounting flange may be reduced in height by milling, with a square cut, a maximum removal of one (1) inch.

(4) Manifold may be port matched a maximum one-half (1/2) inch into intake ports at head. No other alteration will be accepted.

(n) **Carburetor:**

(1) The Toyota Speedway at Irwindale approved carburetors and carburetor rework guidelines are listed below:

(2) Carburetor must be Toyota Speedway at Irwindale approved. Approval of carburetor shall be conducted on a race-to-race basis.

(3) Keith Dorton Holley carburetor part #0-80583-1 or Keith Dorton carburetor parts not permitted.

(4) Any carburetor modification not specifically covered in the rules will NOT be permitted.

(5) Toyota Speedway at Irwindale has approved the following carburetor:

(A) Holley List 4412, two-barrel, 500 CFM carburetor.

(6) **Body of Carburetor:** No polishing, grinding, coatings or drilling of holes permitted. Screw in air bleeds are approved in the body of the carburetor. Carburetor body must have been produced by Holley.

(7) **Choke Linkage:** The choke butterfly plate and shaft must be removed. Choke linkage may be removed, however the choke related holes must be permanently sealed.

(8) **Choke Horn:** Choke horn may be removed with a square mill cut. Edges may not be radiused, filed, or otherwise deburred.

(9) **Boosters:** Boosters may not be changed. Size or shape must not be altered. Height must remain standard.

(10) **Venturi:** Venturi area must not be altered in any manner. Casting ring must not be removed.

(11) **Base Plate:** Base plate must not be altered in shape, size, or finish.

(12) **Butterflies:** Stock butterflies must be used and may not be thinned or tapered. Idle holes may be drilled in the butterflies. Screw ends may be cut even with throttle shaft, but screw heads must remain stock.

(13) **Throttle Shafts:** Shafts must remain standard and must not be thinned, cut or altered.

(14) **Metering Blocks:**

(A) List number 4412 carburetors must be equipped with a Holley OEM 4412 metering block. The only metering blocks allowed will be those that were original equipped from Holley or manufactured by Holley as an OEM replacement for the 4412 carburetor.

(B) Metering blocks may not be used from any non-approved carburetor. Metering blocks for 350CFM or 390CFM carburetors are not permitted.

(C) Creating new (non-OEM) holes in the metering block is not permitted.

(D) Metering block primary jet sizes may be altered by replacing them with Holley OEM jets.

(E) Existing metering block holes may be altered in size.

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(F) Hole for distributor vacuum advance must be plugged airtight.

(15) Overall Modifications:

- (A) Any modification not specifically covered, will not be permitted.
- (B) Carburetor spacers of any type are not permitted.
- (C) The maximum thickness for any carburetor or restrictor gasket will be .065 inches. All gaskets must be one-piece paper construction. Limited to one (1) gasket each.
- (D) Alterations to allow additional air to be introduced into the engine by picking up air below the opening of the venturi such as, altered gaskets, base plates, and drilling holes into the carburetor shall not be permitted.
- (E) All air entering the engine's combustion chambers must pass through the venturi and restrictor plate assembly.
- (F) Two (2) throttle return springs mandatory.

(16) Carburetor restrictor:

- (A) Toyota Speedway at Irwindale P/N 150 must be used on all cars at all times.
- (B) This restrictor shall be in place during all events.
- (C) The restrictor shall be used as produced with no alterations or modifications. No messaging or radiusing restrictor plate edges.
- (D) The restrictor must be placed between the carburetor and intake manifold with no spacers of any kind. Only one (1) gasket per side of restrictor.
- (E) All cars must have one carburetor mounting stud or bolt, and one adjacent restrictor mounting stud or bolt drilled to accept a wire type seal.

(o) Air Intake: (air filter):

- (1) Air cleaners may not be removed during practice, qualifying, or competition. All air cleaners are subject to approval by Toyota Speedway at Irwindale Tech Officials. Air cleaners and air intakes must not alter the outward appearance of the car and must be covered by the hood at all times.
- (2) Only a round dry type paper air filter elements maintaining a minimum of 12 inches and a maximum of 16 inches in diameter will be allowed. The element must maintain a minimum of 1-½ inches and a maximum of 4 inches in height. All air shall be filtered through the filter element. The element, filter assembly, or the area around these items may not be sprayed or soaked with any type of chemical, liquid, gel, or powder.
- (3) Only round uncoated metal air filter housings allowed. No Flow Control or tongue type air cleaner assemblies.
- (4) Only the gasket or round ring of the bottom metal air filter housing may touch the carburetor.
- (5) Cold air boxes are permitted, but must be metal, uncoated.
 - (A) Cold air boxes must be able to be taken apart for air filter inspection.
- (6) No holes, tubes, funnels, or any device, which may control or redirect the flow of air, is permitted inside the air cleaner, or between the air cleaner and the carburetor.
- (7) No carburetor (air flow control) hats.
- (8) Controlled vacuum leaks are not allowed.
- (9) Absolutely no ducts or hoses permitted on or leading to the air cleaner or element.
- (10) Five Star fiberglass cowl induction cold air system, p/n 0005124 permitted, for carburetors with air horn. Five Star fiberglass cowl induction cold air system, p/n 0005114, permitted for carburetors without horn.

6. ENGINE/CAR ELECTRICAL SYSTEM

(a) Ignition System:

- (1) Electronic distributors are permitted. All electronic distributors must be enclosed in stock type housings, equipped with a single magnetic pick-up, gear driven, and mounted in the factory location.
- (2) Dual or single breaker points, camshaft driven, stock located type, distributors are allowed.
- (3) Computerized, dual firing module box, crank trigger, or optically triggered systems are not

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permitted. No magnetos are permitted. All ignition systems are subject to approval of Toyota Speedway at Irwindale.

- (4) Spark Plugs: Any make of spark plug may be used provided it is stock in appearance and function.
- (5) Optically triggered distributors permitted.
- (b) **Alternator:** An approved alternator may be used.
- (c) **Starter:**
 - (1) The self-starter must be in working order and located in the bellhousing.
 - (2) All cars must start under their own power.
 - (3) After racing is underway, cars may be restarted by means of pushing in the pit area only; but under no circumstances is any car to be pushed onto the track from the pit area.
- (d) **Battery:**
 - (1) The approved battery must be located in a steel battery box or located in a safe manner with protection for driver and others.
 - (2) The battery mounting must be acceptable to Toyota Speedway at Irwindale Tech Officials.
 - (3) If a battery must be installed during a race, the battery must be installed securely within the battery box.
- (e) **Electrical Switches and Locations:**
 - (1) All approved switches must be located within easy reach of the driver.
 - (2) A labeled (minimum ½ inch letters) on/off master switch is required and must be located in the driver's compartment so that it is accessible from both sides of the car.
 - (3) The on/off master switch must be connected to the battery cable in such a manner that would cut off all electrical power to the car. Engines must stop running when master switch is off.
- (f) **Accessories:**
 - (1) On-board computers, traction control devices, automated electronics, recording devices, cam-recorders or filming devices, telemetry devices, automatic lap scoring/timing devices (other than those issued by Toyota Speedway at Irwindale), or digital readout gauges will not be permitted.
 - (2) Microprocessors or electronic memory chips will not be permitted.
 - (3) Any car found with an electronic traction control device will subject the driver to a penalty of: suspension for 1 year, and/or be fined a minimum of \$500.00, and/or result in loss of championship points.
- (g) **Radios:**
 - (1) Two-way radio communication between driver and crew will be mandatory. The Toyota Speedway at Irwindale radio vendor must clear your radio frequency.
 - (2) During the race event, each competitor must have a spotter in the designated location and that spotter must monitor Toyota Speedway at Irwindale race control.
 - (3) During practice, each competitor must have a spotter.
 - (4) One car radio, one wiring harness, and one antenna only.

7. ENGINE COOLING SYSTEM

- (a) **General Cooling System:**
 - (1) Engine cooling system must be acceptable to Toyota Speedway at Irwindale Tech Officials.
 - (2) No icing, Freon type chemical, liquid spraying systems, or refrigerants may be used in, near, or around the engine compartment.
 - (3) No anti-freeze.
- (b) **Water Pump:**
 - (1) No external re-circulators or pumps.
 - (2) Standard type water pumps only. Impellers may be altered.
- (c) **Fan:**
 - (1) Fan must meet the following requirements:
 - (2) When a standard steel fan is used, it must have a minimum of four (4) blades.

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- (3) Minimum diameter of fan must be 14 inches.
- (4) Fan used for qualifying must also be used in racing event.
- (5) Electric fans are permitted.
- (d) **Fan Shroud and Ducts:**
 - (1) A fan guard must be installed.
 - (2) The guard may not extend more than 1 inch past the fan blades. No other type of baffles or ducting permitted.
 - (3) If ducting is used to direct air into the radiator, it must be concealed behind nose panel and not affect overall appearance of car.
- (e) **Radiator:**
 - (1) Radiator must be stock appearing and remain in stock location. The radiator must remain stock appearing and remain in the standard position not to exceed two (2) inches from vertical.
 - (2) Radiator must be stock appearing and remain in stock location.
 - (3) Aluminum radiators are permitted.
 - (4) Any approved pressure cap may be used.
 - (5) A radiator protection bar may be used but must not be lower than four (4) inches from the top of the radiator and no farther forward than four (4) inches from the radiator.
- (f) **Overflow:**
 - (1) An approved overflow system is mandatory. Inlet and outlet must be sealed.
 - (2) The reservoir outlet must exit outside the body at the right (passenger side) lower corner of windshield area.

8. ENGINE LUBRICATION

- (a) **Oil:** Any oil may be used, however no combustion enhancing additives may be added to the oil.
- (b) **Oil Filter:**
 - (1) Any single production type oil filter may be used. It may be remotely mounted, but must be located in the engine compartment.
 - (2) Aftermarket screen type filters are permitted.
- (c) **Oiling System:**
 - (1) Factory oiling systems only.
 - (2) Dry sump oil systems will not be permitted.
 - (3) All cars may compete with single stage external oil pump. Oil pan must be the sole oil supply reservoir. All pump installations are subject to approval of Toyota Speedway at Irwindale Tech Officials.
 - (4) Oil supply line to engine valve covers, one per side, permitted.

9. ENGINE EXHAUST SYSTEM

- (a) **Exhaust Manifold:**
 - (1) Any header or manifold, however, no header plates. Header flanges must retain stock bolt pattern only.
 - (2) Headers are allowed to be coated.
 - (3) The header collector pipe cannot be reduced at any point between the primary tubes and the exhaust pipe.
- (b) **Exhaust Pipes:**
 - (1) Exhaust pipes from header to the muffler shall be no larger than five (5) inches in diameter.
 - (2) Exhaust pipes may not reduce in diameter from header to muffler. No device to reduce the interior diameter of the exhaust pipe will be permitted.
 - (3) Exhaust pipes must be securely fastened to manifold and attached to frame in a minimum of two places per pipe.
 - (4) Exhaust pipes must extend past driver and either turn down or to outside of car. No crossover pipes are permitted.

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- (5) Exhaust pipes that have the tail pipe outlet exiting through the car body must be equipped with a flash shield and no exhaust parts may protrude outside the body.
 - (6) Exhaust pipes from header to the muffler "two into one" type systems are allowed.
 - (7) No venturi style exhaust systems.
 - (8) Merge systems will not be permitted.
 - (9) Tri-Y header, connectors, or pipes not permitted.
- (c) **Heat Shields:**
- (1) A heat shield for the exhaust header may be used but it must be no wider than four (4) inches and no longer than the cylinder head. A heat shield for the distributor may be used but it must be no larger than eight (8) inches x ten (10) inches. These are the only acceptable heat shields.
 - (2) Heat shields for exhaust may only be place over the cylinder head location.
 - (3) A heat resistant floor mat may be used in the driver's compartment.
 - (4) Thermal wrapping of exhaust pipes is allowed from the header connection rearward, however the header itself may not be wrapped
 - (5) Heat shields for master and clutch allowed at a bare minimum only.
- (d) **Mufflers:**
- (1) Approved muffler or mufflers must be used.
 - (2) Mufflers must be capable of maintaining a maximum of 90 DECIBALS AT 100 FEET.
 - (3) The pipe exiting the muffler shall be no larger than six (6) inches.
 - (4) If a car should exceed the maximum decibel level, at any time, it will be disqualified until an acceptable noise level is attained.
 - (5) Mufflers must be in place at all times. Cars losing mufflers or exhaust pipes during an event will not be allowed to continue.
 - (6) All exhaust systems and installations must be approved by Toyota Speedway at Irwindale Tech Officials.

10. DRIVE TRAIN

- (a) **Clutch:**
- (1) Heavy duty racing style clutch and pressure plate recommended.
 - (2) Approved multiple disc clutch are permitted.
 - (3) Clutch must be located in bellhousing and must be in place at all times.
 - (4) All cars must have a working clutch.
 - (5) No direct coupling type units.
 - (6) Limited to steel discs and pressure plates only.
 - (7) Minimum diameter of clutch discs must be 5-1/2 inches.
- (b) **Flywheel:**
- (1) The flywheel must be made of steel or aluminum.
- (c) **Bell Housing:**
- (1) Steel or aluminum bellhousing may be used. No magnesium allowed.
 - (2) An approved scatter-shield mandatory.
- (d) **Transmission:**
- (1) Transmission must be located in stock location.
 - (2) Aftermarket and OEM transmissions may have gears removed, but must retain a minimum of two (2) forward and one (1) reverse gears operational from driver's compartment.
 - (3) No five (5) speed transmissions permitted.
 - (4) No TEX T101 transmissions permitted.
 - (5) No rod shifting systems permitted.
 - (6) Transmission may be interchanged from make to make.
 - (7) Two-speed quick-change transmissions are allowed.
 - (8) No Brinn transmissions.
 - (9) No disengage type transmissions. Only conventional style transmissions.

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(e) Drive Shaft:

- (1) Only one-piece steel drive shafts with a minimum diameter of 2.750 inches are permitted. Heavy duty, OEM type, universal joints are mandatory.
- (2) It is mandatory that two 360-degree 1/8-inch x 1-1/2 inch steel driveshaft guards (loops) are installed around the drive shaft, front and rear, in a safe manner so as to prevent the driveshaft from becoming dislodged and falling on to the race track.
- (3) All drive shafts must be painted white.
- (4) All drive shafts must have the car number painted on.

(f) Rear Axle:

- (1) Steel full floating 9-inch Ford rear axle housing is mandatory.
- (2) The centerline of the rear end pinion must be within one (1) inch of the rear hubs, measured from the left and right hubs where the wheels bolt on.
- (3) The rear springs must mount on the rear axle in equal distance left to right.
- (4) Only magnetic steel axles will be allowed. Material other than steel is not permitted. Stainless steel axles not permitted.
- (5) Cambered rear axle housings not permitted.
- (6) No tapered or crowned axles.
- (7) Only one-piece magnetic steel axle housings will be allowed.
- (8) Third member including bearing retainer and yoke must be made of magnetic steel.
- (9) Spools, drive plates, and internal parts, may be made of aluminum or steel only.
- (10) Quick-change rear ends not permitted.

(g) Wheels and Lug Bolts:

- (1) Only approved 15-inch diameter steel wheels with a maximum 10-inch rim width and a reinforced center are allowed.
- (2) A minimum of a three (3) inch offset and a maximum of a five (5) inch offset on all four (4) wheels are required. Wheels must maintain the same width and offset on all four wheels.
- (3) Solid heavy-duty 5/8-inch steel studs (lug bolts) and nuts must be used on all four wheels.
- (4) The use of bleeder valves is not permitted.
- (5) One valve stem per wheel.
- (6) Wheel studs must protrude past lug nuts.
- (7) All tire/wheel balance weights must be on the inside of wheel.
- (8) One wheel spacer per wheel may be used.
- (9) No lightweight wheels.
- (10) Minimum wheel weight:
 - (A) 19 lbs.
 - (B) "Wide 5", 15.5 lbs.

(h) Tires:

- (1) Tires must be purchased from Toyota Speedway at Irwindale.
- (2) Approved tire for left side only is Hoosier 3035. Approved tire for right side is Hoosier 3045.
- (3) All competition tires must be purchased from Toyota Speedway at Irwindale.
- (4) Tire soaking is not allowed at anytime, penalty for this will be one-year suspension.
- (5) Tires that have been altered by unauthorized treatment will not be permitted.

(i) Tire Usage Rules:

- (1) For all Super Late Model points events each driver will be allowed to buy four (4) tires. Competitors are allowed four tires per event.
- (2) After qualifying, any competitor who flattens or damages one or more tires in an accident etc. will be allowed to replace the damaged tire(s) before the race with an approved (used) Toyota Speedway at Irwindale tire upon approval of Tech Officials. Toyota Speedway at Irwindale Tech Officials must approve all tire changes.
- (3) Toyota Speedway at Irwindale reserves the right to impound tires for storage between events.
- (4) The tires that you qualify on are the tires you must start the race with.

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- (5) Special events, if any, may not be subject to these rules.

11. FRAME REQUIRMENTS (CHASSIS):

- (a) Perimeter style chassis only.
- (b) Main frame rail members in the center section of the car must be constructed of a minimum of two (2) inch x three (3) inch steel box tubing having a minimum wall thickness of .120 inches and exhibit quality workmanship and welding.
- (c) Front sub-frame must be manufactured similar in design and appearance to standard passenger car frame or be of stock type construction. The rear frame rails may be manufactured to extend above or below the rear axle tubes.
- (d) Frame side rails must maintain a minimum width of forty (40) inches and a maximum of fifty-eight (58) inches measured anywhere along the inside of the frame side rails.

12. SUSPENSION

- (a) **General Suspension:** Section held for possible future use.
- (b) **Front Suspensions:**
 - (1) Front suspensions must be reinforced.
- (c) **Front Coil Springs:**
 - (1) Front coil spring mounts must be located on the lower A-arm and top mount must be welded.
 - (2) Front "coil-over" style shocks/springs shall be allowed in the front of the car.
- (d) **Rear Suspensions:**
 - (1) Rear suspensions must be reinforced.
 - (2) The rear springs must mount on the rear axle in equal distance left to right.
 - (3) Rear lower control arms must be metal or steel.
 - (4) Independent rear suspension is not permitted.
- (e) **Rear Coil Springs:**
 - (1) The use of a racing spring, provided it is of a stock type appearing, is permitted.
 - (2) Rear "coil-over" style shocks/springs shall be allowed in the rear.
- (f) **Sway Bars (Anti-Roll Bar):**
 - (1) Sway bars must be approved by Toyota Speedway at Irwindale Tech Officials and meet the following.
 - (2) All sway bar components must be made of steel.
 - (3) Sway bar must mount to lower A-Arm.
 - (4) Sway bar may not be adjustable from inside the car.
 - (5) If a 3-piece front sway bar is used, the arms can be made of aluminum.
 - (6) No titanium or hollow fasteners allowed.
 - (7) Rear sway bar permitted, subject to tech approval.
- (g) **Track Bar:**
 - (1) Track bar (Pan-Hard or J-Bar) adjusting devices will not be permitted on the interior of the car within the drivers reach.
 - (2) Any vehicle with an adjustable track bar (Pan-Hard or J-Bar) device inside the interior of the car must have the extension device in a vertical position and mounted straight up as much as practical.
 - (3) Panhard bar must be steel.
- (h) **Shock Absorbers:**
 - (1) Shocks may be made of steel or aluminum.
 - (2) Shock unit must be one piece.
 - (3) External reservoirs are not permitted.
 - (4) Only one shock per wheel permitted.
 - (5) The following shocks are not permitted: Penske 7300 series, Carrera Magnum, Bilstein B46-60BG8, and Ohlins WCJ series.

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- (6) All shocks must be approved prior to competition.
- (7) No base valve on pressurized shocks.
- (i) **A-Frames:**
 - (1) All A-arms must be made of magnetic steel and cross-shafts must be magnetic steel or aluminum.
 - (2) A-arm mounting locations may be altered.
 - (3) Lower a-arm adjusting rods may be aluminum.
- (j) **Spindles, Wheel Bearings and Hubs:**
 - (1) The spindles and hubs must be Toyota Speedway at Irwindale approved and meet the following requirements.
 - (2) Approved aluminum and steel hubs are allowed.
 - (3) Heavy-duty steel spindles and wheel bearings are mandatory.
- (k) **Tread Width Requirements:**
 - (1) Front and rear tread width shall not exceed a maximum of sixty-eight (68) inches. The front measurement will be from inside of crown of right side tire and outside crown of left side tire at spindle height.
 - (2) The distance from the centerline of the tread width, front and rear, to the mounting points of the lower control arms, left to right, must be within two (2) inches.
 - (3) The centerline of the front and rear must be within one (1) inch of the centerline and of the tread width, front and rear.
- (l) **Wheelbase Requirements:**
 - (1) A minimum 105 inch to 108 wheelbase will be allowed, plus or minus ½-inch on opposite side.
- (m) **Body Height Requirements:**
 - (1) All cars must maintain a roof height of a minimum of forty-seven (47) inches, when measured ten (10) inches back from the windshield.
 - (2) Quarter panel height must comply with the ABC Rulebook.
 - (3) Bumper cover at bottom rear lip height to ground must comply with the ABC Rulebook.
 - (4) Front nose height must comply with the ABC Rulebook.
- (n) **Ground Clearance Requirements:**
 - (1) No part of the chassis or weight tray shall be lower than minimum 4-inches at anytime.
 - (2) Side skirts must maintain a minimum 4-inch height at all times.
 - (3) No portion of the car may be lower than 3-1/2 inches at anytime (exhaust & oil pan permitted only).
 - (4) Approved front air dams must maintain a minimum ground clearance of four (4) inches.
 - (5) Belly pans not permitted.
- (o) **Car Height Adjusting Devices:**
 - (1) Front and rear suspension weight jacking bolts permitted.

13. STEERING

- (a) Rack and pinion steering allowed.
- (b) Tie rods, drag links, steering boxes, and all parts must be heavy-duty type.
- (c) Tie rod ends must be steel. All tie rod ends must be approved by Toyota Speedway at Irwindale Tech Officials.
- (d) Heavy-duty steel heim joints allowed.
- (e) Center top of steering wheel must be padded with 2-inches of resilient material.
- (f) An approved all metal quick-release steering wheel coupler must be used.
- (g) All steering columns are required to have a collapsible section or have two (2) unsupported universal joints.
- (h) Recommended ¾ inch solid steering shaft or .120 inch wall tubing.
- (i) Heavy-duty steering arm assemblies are mandatory.

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14. BRAKES AND COOLING COMPONENTS

(a) Brake Components:

- (1) Brakes must be in a good operating condition on all four wheels at all times.
- (2) Only four-wheel disc brakes with steel, non-coated rotors allowed.
- (3) Aftermarket calipers may be used.
- (4) Brake adjusting devices in driver's compartment are allowed.
- (5) Master cylinders and reservoirs should be mounted in the engine compartment.
- (6) When master cylinders are mounted in driver's compartment they must be covered.
- (7) Electric brake actuators are not permitted.
- (8) No carbon fiber components.
- (9) No titanium components.
- (10) **Rotors:** Minimum rotor size outside diameter:
 - (A) Front: 0.800 x 11 inch.
 - (B) Rear: 0.700 x 10 inch.

(b) Brake Cooling:

- (1) All brake cooling components must be approved by Toyota Speedway at Irwindale.
- (2) A maximum of two hoses per wheel may be used for brake cooling and the duct inlet can only come through the front of the air dam/nose piece.
- (3) Water cooling of brake systems is not permitted.
- (4) An approved brake fluid re-circulating system is allowed.

15. FUEL

- (a) All cars must compete with fuel dispensed from the track gas station only. Fuel must be ran as dispensed. No mixing of fuel grades.
- (b) All fuel must be 92,100, or 110 octane and run as dispensed. Fuels may not be blended. Fuel must be the same as track base color with no exceptions.
- (c) Fuel shall comply with ASTM D4814 entitled, "Standard Specification for Automotive Spark-Ignition Engine Fuel", except limited to liquid hydrocarbons only, Class A, B, C, D, or E, but without regard to geographical location or seasonal limitation.
- (d) Gasoline shall not be blended with: alcohols, ethers, or other oxygenates and it shall not be blended with aniline or its derivatives, nitro compounds, or other nitrogen containing compounds.
- (e) No cooling or icing of any fuel or fuel component.
- (f) Nitrous oxide prohibited.

16. FUEL SYSTEM

(a) Fuel Cell:

- (1) All cars must be equipped with an approved fuel cell.
- (2) Capacity shall be a maximum of 22 gallons and a minimum of 15 gallons.
- (3) It is mandatory that all fuel cell bladders used be manufactured within the last five years.
- (4) A fuel cell check valve is mandatory.
- (5) Kevlar fuel cell bladder allowed.

(b) Fuel Cell Container:

- (1) The fuel cell must be completely enclosed in a steel container (box), minimum 22-gauge.

(c) Fuel Cell and Fuel Container Installation:

- (1) Fuel cell must maintain a minimum of 8 inches from the ground at all times.
- (2) A steel framework, welded to frame rails, must be used to mount fuel cell. It is recommended that this framework be fabricated from a minimum of 1-inch x 1-inch x .065 inch square tubing.
- (3) Straps must also be bolted or welded to the steel framework. A minimum of two (2) straps lengthwise and two (2) straps crosswise must completely encircle the fuel cell. The material for this strap is 1-inch x 1-inch x .065 inch square tube.
- (4) Fuel cells must be securely mounted in the trunk area centered between frame rails and as far

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forward as possible.

- (5) The fuel cell must be bolted to steel framework in a minimum of eight (8) places.
 - (6) A fuel cell protector bar made from a minimum of 1-½ inch x .090 inch steel tubing is required. The length must be greater than the width of the fuel cell, and must extend lower than the fuel cell. The fuel protector bar must have a minimum 3 inch gusset welded to the front side (cell side) of the bar connecting ends and the bars mounting points.
- (d) **Fuel Filler and Vent Requirements:**
- (1) A fuel vent check valve is mandatory.
 - (2) Fillers must not be mounted on the rear quarter panels. Check valve filler neck inside diameter shall not exceed 2-1/8 inches maximum, 2-¼ inches outside diameter.
 - (3) The maximum filler plate size is (4) inches x (8) inches.
 - (4) Fuel cell vent hose minimum 5/8 inch, maximum 1 inch, and must extend to outside at left rear taillight area. A fuel vent flap valve is mandatory at all times.
- (e) **Fuel Lines:**
- (1) Only one (1) fuel line from fuel cell to fuel pump is allowed. Maximum diameter 5/8 inch ID.
 - (2) Dry coupling fuel connectors are eligible for use in Super Late Model Stock Car events.
 - (3) If a fuel line runs in the driver's compartment, it must be enclosed in a steel tube. Any line inside the driver's compartment must be installed the most direct route.
- (f) **Fuel Pump:**
- (1) No electric fuel pumps permitted.
 - (2) Only OEM type mechanically driven fuel pump allowed.
 - (3) Fuel pump must be mounted in stock location.
- (g) **Fuel Filter:**
- (1) Single pass filters only.
 - (2) Glass fuel filters not permitted.
 - (3) Any approved gas filter may be used. Maximum capacity of 1 quart (US) allowed.
- (h) **Fuel Filler Cans:**
- (1) Fuel must be stored in approved containers.

17. PERSONAL SAFETY EQUIPMENT AND ROLL BARS

- (a) **General Safety:**
- (1) For all safety devices it is the responsibility of the driver, not Toyota Speedway at Irwindale , its officers, or its agents to ensure his/her safety device systems are correctly installed, maintained, and properly used at all times.
 - (2) As with all safety items Toyota Speedway at Irwindale strongly recommends that, the driver carefully study all manufacturer's installation and usage guidelines and adhere to these recommendations to the highest extent possible.
- (b) **Protective Clothing:**
- (1) It is recommended that at all times, the driver wears a driving suit and gloves of fire resistant material that effectively covers the body.
 - (2) It is recommended that driver's suit be of the best quality fire protection available. It is also recommended that during an event, practice, or qualifying a driver wears the following: fire resistant shoes and socks, fire resistant hood, fire resistant underwear.
- (c) **Fire Control:**
- (1) It is recommended that all cars have a built-in, fully charged, DuPont FE-36, or equivalent type fire suppression system (not of the dry chemical type), with an operating pressure gauge. Gauge must be visible for inspection by Track Officials.
 - (2) Any car not equipped with a built-in fire suppression system must have a fully charged fire extinguisher, a Halon, or equivalent type at least 10-B:C UL rating, with an operating pressure gauge, securely mounted to the right side of the driver's seat, and readily accessible for use.
 - (3) All entrants should have a 10-lb., DuPont FE-36, or equivalent fully charged fire extinguisher in

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their pit area.

(d) **Helmets; Head and Neck Restraint Devices:**

- (2) Helmets shall be in compliance with the current NASCAR All-American Series Rule Book.
- (1) Full face helmets with Lexan face shield recommended.
- (2) Nomex Helmet Skirt, and Nomex covered chinstrap recommended.
- (3) It is recommended that all drivers wear a HANS or Hutchens head and neck restraint device.

(e) **Seat Belts:**

- (1) A quick release seat belt no less than three (3) inches wide is mandatory. Both ends of the lap belt must be fastened to the roll cage with high quality bolts, not less than 3/8 inch in diameter.
- (2) Shoulder harness must be no less than three (3) inches in width and must come from behind and below top of driver's seat. Where the harness crosses the roll cage, it must pass through a steel guide welded to the cage in a manner that will prevent the harness from sliding from side to side. No inertia reels are permitted.
- (3) A center crotch belt must be used. It must be a minimum of 2 inches wide and mount to the roll cage or seat mount.
- (4) Where belts pass through the seat edges, the edge must have a grommet or be rolled so as to prevent belt from being cut.
- (5) All belts must connect in a single latch, at the lap belt. Latch must be approved quick release type.
- (6) All belts must be tight while in competition.
- (7) Belts must be replaced every 2 years and all belts must be dated by manufacturer or dealer.
- (8) All seat belts must be a complete matching set from the manufacture. No mixing of manufactures.
- (9) It is highly recommended that the driver carefully study seat belt manufacturer's installation guidelines.
- (10) Mounting and installation: refer to the current NASCAR All-American Series Rule Book.

(f) **Seats:**

- (1) A professional racing seat is required. Approved seat must be made of aluminum and manufactured specifically for auto racing. No fiberglass, plastic, or homemade seats are permitted.
- (2) Seats must be mounted with a minimum of six (6) 3/8-inch grade 5 bolts. Two bolts at front of seat on bottom, two at bottom rear, or two lower back of seat and two at #7 roll cage bar at upper seat back.
- (3) Seats must have a built-in padded headrest behind head.
- (4) It is recommended that the seat also offer rib protection and have leg extensions.
- (5) Headrest recommended on side of head.

(g) **Roll Bars:**

- (1) Roll cage must be constructed in a manner similar to the diagram in the back of the current NASCAR All-American Series Rule Book. A full roll cage is required.
- (2) Roll cages offset on chassis not permitted.
- (3) Roll cage must conform to body.
- (4) A minimum of four (4) door bars are required on the both sides of the car.
- (5) All door bars except the bottom door bar must extend into the door skin and be convex. The bottom bar may be straight with a minimum of (3) convex door bars required on each side of car.
- (6) The top door bar on each side must maintain a minimum vertical height of 20 inches from top of main rails to its centerline.
- (7) Roll cages with "X" design in right door must still have (3) convex door bars on right side.
- (8) The driver's side door bars must be plated with a steel plate of not less than 1/8-inch material. The minimum size for this plate shall be 24 inches in height and 32 inches in length. However, a minimum of 1/8-inch steel plate may be cut and welded into the door bar gaps.
- (9) Roll cage must be constructed of tubing, 1-3/4 inches x .095-inch minimum.

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- (10) All joints and connections must be welded. It is recommended that welds be certified. Welds should be made by MIG, TIG, or arc welding. All welds on main cage must be gusseted.
- (11) All areas of roll cage near driver and within his/her reach must be padded with approved padding.
- (12) All cars with steel covering over inside door bars on driver's side must be padded.
- (13) Any roll cage exhibiting poor quality workmanship may be rejected. Rejected roll cages will not be permitted to compete until satisfactory changes or repairs have been performed.
- (14) It is recommended that the area behind the driver's seat be plated with 1/8 inch or thicker steel.

Any part of equipment found during an inspection or any other time at any NASCAR sanctioned event that does not meet applicable NASCAR/Toyota Speedway at Irwindale standards, must be surrendered to the NASCAR/Toyota Speedway at Irwindale Tech Official at that time, and will not be returned. Failing to do so will result in: a fine, and/or loss of championship points, and/or definite or indefinite suspension from NASCAR.

Toyota Speedway at Irwindale Tech Officials reserve the right to make final decisions in the interpretation of any rules or race procedures at any time. No equipment will be considered as having been approved by reason of having passed through inspection. Toyota Speedway at Irwindale Tech Officials recommend that you carefully study the NASCAR All-American Series Rule Book in order to be familiar with all aspects of NASCAR racing. If you are considering a part, modification or procedure not covered in these rules contact the Toyota Speedway at Irwindale Competition Director before proceeding with any purchase or modification. If you have any questions regarding the rules set forth, contact the Toyota Speedway at Irwindale Competition Director.

In keeping with NASCAR's and Toyota Speedway at Irwindale's commitment to maintaining proper balance in the competition arena, it may be necessary for Toyota Speedway at Irwindale to make rule changes and/or rule modifications from time to time. Such changes are designed to enhance close competition. Toyota Speedway at Irwindale's goal of a full starting field of various car makes in each race that are equally matched as possible is certainly in the overall best interest of the sport.