

OFFICIAL 2009 - 2011 SPECIFICATIONS FOR NASCAR 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 RACING SERIES 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 Officials.

1. COMPETING MODELS

- (a) Open to stock appearing automobiles provided they comply with, and adhere to, specifications as outlined for this division.
- (b) Any approved car body Make and Model may be interchanged with any approved chassis Make, i.e. Ford body on Chevy frame.
- (c) The Chevy ZZ4 spec motor may be used with any chassis Make.
- (d) Competing Models as Selected by Toyota Speedway at Irwindale. The following 2004 through newer year models approved by ABC, cars 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:** 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.abcodies.com>). All body parts used must be manufactured by Five Star Car Bodies® or Aluminum Racing Products, Inc (ARP). Any body part used, 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.
 - (1) Cars must be neat appearing. All panels must fit properly and be free of sharp edges. All panels must be painted.
 - (2) The bodies will be required to fit Toyota Speedway at Irwindale approved ABC overall body template(s).
 - (3) All bodies will be subject to the Official Referee and must meet the specifications indicated by the ABC Rulebook.
 - (4) Bodies must be standard as produced by aftermarket manufacturer metal or fiberglass.
 - (5) Flat or slab sided bodies not permitted.
 - (6) No lightweight body parts.
 - (7) Kevlar or Titanium parts not permitted, except as allowed in these rules.
 - (8) Carbon fiber and ceramic-coated parts not permitted.
 - (9) Any 2003 and earlier year body, must be manufactured by Five Star Race Bodies®, and will be subject to a weight penalty, and must comply with Five Star specifications, and must fit Toyota Speedway at Irwindale's approved nose/body templates within 1/2-inch tolerance.
 - (10) Down force and high performance type bodies not permitted.
- (b) **Floorboards:**
 - (1) Floorboard must extend from the front firewall to the main roll bar (roll cage hoop) behind the driver.
 - (2) Stock floorboards and transmission tunnel recommended.
 - (3) Floorboard height must not exceed 12-inch measured from bottom of chassis.

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- (4) All holes in floor must be sealed.
- (5) Floorboards and transmission tunnels replaced must be a minimum of 24-gauge magnetic steel.
- (6) Floorboards and transmission tunnels must be welded in place and show good workmanship.
Subject to approval of Toyota Speedway at Irwindale Tech Officials.

(c) Interiors:

- (1) Interior panels must be trimmed neatly around roll cage and sealed for fire protection.
- (2) Interiors with metal over roll cage covered on driver side must be covered with high-density type padding.
- (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 recommended that all interior panels be welded in place.
- (5) Interior holes must be sealed.
- (6) Interior door shelves not permitted.
- (7) Interior upper door crush panels at right and left side with a flat shelf not permitted. Panels must direct toward floor tunnel.

(d) Overall Car Weight:

- (1) Minimum car weight including driver is 2,900 pounds before the race. Minimum car weight for three link cars is 2,925 pounds. (Three link car weight subject to review).
- (2) Maximum left side weight is 57% including driver with both hands on steering wheel.
- (3) All cars will be weighed on Toyota Speedway at Irwindale's scales. These scales will be the only method for determining a car's weight.
- (4) AT THE DISCRETION 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 10 pounds.
- (2) All added weight must be securely bolted in place with a minimum ½-inch diameter, grade 5 bolts with locking nuts. No aluminum brackets.
- (3) All added weight MUST be painted white and the car number must be clearly visible on each piece.
- (4) Weight may not be added ahead of the front spindles, or behind the rear axle.
- (5) Weight may not be located inside the driver's compartment.
- (6) Weight may not be added to the outside of the frame rails, except when lead is enclosed in a weight tray.
- (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) 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.
- (9) Weight added for a penalty must be located on the right frame, forward of the bell housing, and behind the right upper ball joint. The weight shall be white with yellow strip in color.
- (10) Devices for shifting weight not permitted at any time.
- (11) Cars losing ANY added weight or failing to bolt weight in a safe manner on the car will, at a MINIMUM, pay a \$10 per pound penalty. Dislodged weight cannot be returned to cars for weighing after an event.

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 permitted in the front air dam for air inlet only.
- (2) Approved front air dams must maintain a minimum ground clearance of four (4) inches.
- (3) The nose may not be altered, with no trimming, holes or attachments, however if necessary, a like material piece may be attached to the lower edge of the nose solely for the purpose of

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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.

- (4) All support brackets and bumpers must be mounted behind nose.
- (5) All attachments must be approved by Toyota Speedway at Irwindale Tech Officials.
- (6) Reinforcement or added tubing may be placed behind approved nose piece.
- (7) Nose widths must remain stock as per Five Star guidelines with no sectioning or spacers permitted.
- (8) Nose or lower side valances may be trimmed for tire radius and minimal tire clearance only.
- (9) The nose or side valance can be no more than ½ inch wider than the outside crown of the tire on each side at any time.
- (10) Where nose meets front of hood must be mounted as per Five Star guidelines

(b) **Rear Spoiler:**

- (1) A spoiler must be attached to the rear of the deck lid.
- (2) Spoiler dimensions must comply with the ABC Rule Book.
- (3) No rudders, braces, or external supports of any kind are permitted.
- (4) Spoiler must be fabricated of a material that will not allow it to flex or in any way deform during competition.
- (5) A minimum of four (4) inches of the top of the spoiler must be made of clear non-tinted Lexan polycarbonate or a similar non-flexible material.
- (6) No decals will be allowed on the spoiler at anytime.
- (7) Spoiler must follow the contour of the rear deck lid. Mounting must be approved by Toyota Speedway at Irwindale Tech Officials.
- (8) The spoiler must be slotted ½ inch in the center 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 straps evenly spaced 1/8-inch x 1-inch metal must be mounted securely to the dash and roof panel inside of the windshield. These supports must not block the vision of the driver. The supports must be bolted, top and bottom with 1/4 inch bolts, to the roof and the dash panel at the bottom to secure windshield in place.
- (3) Angle of windshield must meet Toyota Speedway at Irwindale template tolerance.

(d) **Rear Window:**

- (1) A rear window must be used but must be made of clear Lexan polycarbonate with a minimum thickness of 1/8 inch. A minimum of two straps 1/8-inch x 1-inch inside, and two straps 1/8-inch x 1-inch outside, evenly spaced metal straps must be bolted with ¼-inch bolts to the top and bottom, to secure window in place.
- (2) During competition the rear window must maintain stock configuration. Angle of rear window must meet Toyota Speedway at Irwindale's template tolerance.
- (3) Rear window must not deform during competition.

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

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

- (A) Quarter windows must be located in stock location, and recommended clear Lexan.
- (B) Quarter windows may be used for air intake.
- (C) No side door windows.

(2) **Air Deflectors and A-post:**

- (A) A-post deflector must be clear Lexan and may not protrude outward. An air deflector may be used to support the windshield A-pillar.
- (B) A-post deflectors may be used as an air intake within 12 inches length. The deflector, when measured horizontally, must not be longer than twelve (12) inches in length.
- (C) No B-post air deflector permitted.

(3) **Window Net:**

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- (A) One (1) inch mesh window net mandatory. The net must permanently be mounted at bottom and have an approved quick release at top.
 - (B) Window net must be within 5 years of manufacture date.
 - (C) Window net must have 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.
 - (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 only one (1) rear view mirror placed at the top and center of the windshield.
 - (2) An additional rear view spot mirror may be added; 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, and be the width of dash bar.
 - (2) Dash panel may be fabricated from aluminum.
- (h) **Firewalls:**
- (1) Front and rear firewalls must be sealed. All holes must be sealed and covered.
 - (2) Full firewall must be constructed with minimum 24-gauge magnetic steel.
 - (3) Rear firewall must be constructed of 24-gauge steel, and completely seal the driver's compartment from fuel cell compartment.
- (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 guidelines to contour of tire.
- (j) **Fenders:**
- (1) Bodies and fenders must cover tires.
 - (2) All fenders must be mounted in a manner to be contour of tire and not concaved behind tires.
 - (3) All fenders must be mounted in a manner to lay flush to front of door with rear of fender to form to the crown of tire.
 - (4) Fenders may only be trimmed 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 guidelines.
 - (2) Quarter panels must be formed so that the front and the rear do not to exceed the crown of the rear tires at anytime.
 - (3) Quarter panels rear of tires may not be pulled in past the edge of tire tread.
 - (4) Quarter panels may be trimmed for tire clearance to the radius of the tire only.
 - (5) All quarter panels at B-post must retain stock dimensions and be mounted as per Five Star specifications.
 - (6) Rocker panel skirts must hang straight and not flared out.
- (l) **Grilles:** Openings must retain the same shape and size as the stock production.
- (m) **Hood:**
- (1) Hood must maintain original configuration.
 - (2) Scoop hoods subject to weight penalty.
 - (A) Scoop hoods must seal to the window and the 2-1/2 inch x 20-inch opening must be cut in the hood directly above the original cowl opening. Maximum height of scoop, when measured from flat section of hood, shall be three (3) inches. Opening must face the windshield. All installations are subject to approval of Irwindale Speedway Tech Officials.
 - (3) Hoods must be held in place with hood pins. A minimum of four (4) in front and two at the rear of

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the hood (unless hinged) are mandatory.

- (4) Holes are not permitted in hood.
- (5) The air intake opening in cowl panel must be 2-1/2 inch by 20 inch at the center.
- (6) Hoods must lay flat to fenders and remain sealed to cowl panel at all times.
- (7) Cold air boxes and induction systems are not allowed.

(n) **Roof:**

- (1) All cars must maintain a roof height of a minimum of forty-seven (47) inches, when measured 10 inches back from the windshield.
- (2) All roofs must comply with ABC specifications.

(o) **Rear Deck Lids:**

- (1) The rear deck lid must comply with ABC specifications.
- (2) There must be two (2) tow hook pick up points clearly marked under deck lid area.

(p) **Bumpers:**

- (1) The rear bumper may not be altered, with no trimming, holes or attachments.
- (2) Rear bumpers in top quality condition are required at all times.
- (3) No cutting, trimming, or holes in bumper cover.
- (4) All rear bumpers must remain with manufactures lower lip at bottom.
- (5) No rear nerf bars, or external reinforcing bars are permitted.
- (6) All mounting measurements including ABC template guidelines must still be met.

(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. Decals are permissible in place of painted numbers.
- (5) Gold or Silver foil numbers are not permitted.
- (6) All Late Model race car numbers will be issued through the track. Absolutely NO "x"s or duplicate numbers allowed at anytime.
- (7) Block type numbers six inches in height must be attached to the right front headlight area, and the right rear taillight area.
- (8) All cars must display an approved 8-inch white car number decal in the upper-right (passenger-side) of the front windshield.
- (9) Contingency sponsor decals must be in place to receive awards, or prize money from contingency sponsors.
- (10) Series and contingency sponsor patches must be worn to receive awards.

4. GENERAL ENGINE REQUIREMENTS

- (a) Only engines of a type approved by Toyota Speedway at Irwindale are permitted.
- (b) The following characteristics must be identical with the production engine upon which recognition of type has been granted. All parts listed below must originate from stock production castings and forgings, which have been machined according to the normal machining schedule utilized for standard production parts only. No coating on any internal engine surface or components. 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.
- (c) Optional Spec Motor: Chevy ZZ4 (Fast Burn) style 350 CID spec motor Chevy p/n 12496769 permitted. This motor will be produced and be available to Late Model competitors at the lowest possible price. All competition-approved motors must be purchased through approved spec motor suppliers.
 - (1) Engine must be purchased complete and sealed from approved spec motor supplier.

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- (2) Engine is sealed on intake manifold, timing cover, and oil pan. Seals may not be broken or removed except by approved spec motor supplier or Track Official.
- (3) Engine may not be modified in any way and must remain intact as originally sold by the approved spec motor supplier.
- (4) Any repairs to engine requiring breaking or removing of engine seals may only be performed by approved spec motor supplier.
- (5) 1.6 ratio rocker arms may be installed. Rocker type must be stock style stamped steel only.
- (6) Valve springs, keepers, shims/spacers, caps and retainers for heads must be direct OEM replacement of original type, size, material, and diameter. Valve springs may not exceed 101 lbs @ 1.780 inch when measured on or off the head. Installed valve spring length (valve spring installed height) must remain as produced.
- (7) Guide plates, stud girdles, and oil deflectors are not permitted.
- (8) Any stock type HEI distributor only. Billet distributors are permitted.
- (9) Any steel dampener or OEM type damper is allowed. Minimum diameter is 6.00 inches. Fluid damper is permitted.
- (10) For rules on carburetor, exhausts, and air cleaner, refer to the Official Toyota Speedway at Irwindale Rules.
- (11) Post race inspection requiring "tear down" of engine may or may not apply to verified sealed spec engines at the discretion of Track Officials.
- (12) Re-assembly and resealing of any spec engine dis-assembled at post race inspection must be performed by approved spec motor supplier.
- (13) The following are approved spec motor suppliers:
 - (A) Bill Loe, 19345 Archwood St., Reseda, CA 91335, (818) 427-0434.
 - (B) James Weston, 362 Stroke Rd., Goleta, CA 93117, (805) 562-9558, (805) 705-6372.
 - (C) LIZ-ZARD Racing Engines, Vince Vicedo, 8067 Garden Grove Ave., Reseda, CA 91335, (818) 606-9322.

5. DETAILED ENGINE REQUIREMENTS

(a) Engine Location:

- (1) Crankshaft centerline must be centered within the frame rail and center of tread width, front and rear.
- (2) All engines must be located so the center of the forward most spark plug hole is a maximum of one 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.

(b) Engine Ground Clearance:

- (1) Crankshaft centerline must retain a minimum of 10-1/2 inches to ground.

(c) Engine Mounts:

- (1) All mounts must be securely bolted.

(d) Engine Displacement:

- (1) The maximum allowable cubic inch displacement at any time shall be 361.
- (2) These cars may compete with a maximum 361.0 cubic inch displacement, pushrod, calculated overhead valve, standard production V-8 engine.
- (3) 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.
- (4) A P&G cubic inch measurement tool may also be used to evaluate cubic inches without tear down.

(e) Engine Compression Ratio:

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- (1) The term "11.5-1 compression ratio engine" shall mean any engine having a compression ratio of less than 11.5 to 1. The maximum compression ratio is 11.5 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 be a product of the manufacturer of the make being used in competition. No aftermarket or aluminum blocks are permitted.
 - (2) No bow-tie blocks 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. No angle cutting of the block deck, or grinding or milling for weight reduction of the block is permitted.
 - (4) 400 Chevy parts not permitted.
 - (5) Stroke must remain stock for block used.
 - (6) The maximum overbore allowed in any cylinder is 0.060 inches.
- (g) **Internal Changes:**
- (1) Internal polishing of the engine block is NOT permitted. Light deburring is permissible. Screening of the intake valley area for debris protection is permitted.
- (h) **Piston/Rods:**
- (1) Any three (3) ring piston may be used.
 - (2) Only solid steel connecting rods permitted. 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 below:

| | Minimum & Maximum | |
|--------------------|-------------------|-------|
| (A) General Motors | 5.700 | 6.000 |
| (B) Ford Windsor | 5.954 | 6.000 |
| (C) Ford Cleveland | 5.778 | 6.000 |
| (D) Chrysler | 6.000 | 6.250 |
- (i) **Oil Pans and Coolers:**
- (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) Approved oil coolers are permitted.
 - (4) A one (1) inch diameter inspection hole located on the side of the oil pan accessible to inspect crankshafts and the rods. Inspection plug (Moroso Part #23970) must be used. The inspection hole plug must be wire tied for safety.
- (j) **Cylinder Heads:**
- (1) Stock OEM straight plug cast iron production head only. Heads must be manufactured by GM, Ford, or Chrysler.
 - (2) 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 parts ineligibility.
 - (3) Limited to (2) valves per cylinder.
 - (4) All valves must be identical in appearance and construction as an OEM type.
 - (5) Valve must have OEM valve stem diameter only.
 - (6) All Chrysler cylinder heads and manifolds will need prior approval by Toyota Speedway at Irwindale.
 - (7) Valves must be identical in appearance and construction as an OEM type.
 - (8) The maximum of a three (3) angle valve job is permitted. When cutting the valve seat angles, no stone, cutter, or grinding marks are permitted above the bottom of the valve guide. All cutting in reference to the valve job must be centered from the centerline 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

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manufacturer. Surfaces and/or edges where the stone or cutter has touched must not be polished, smoothed, or radiused.

- (9) No hand or CNC grinding, milling or polishing is permitted on any part of the head other than mentioned in stated rules.
- (10) 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.
- (11) Undercut valves shall be permitted with a minimum diameter of .305-inch.
- (12) The maximum valve sizes as measured across the valve face are as follows:

| | | Intake | Exhaust |
|-----|----------------|--------|---------|
| (A) | General Motors | 2.020 | 1.625 |
| (B) | Ford Cleveland | 2.046 | 1.656 |
| (C) | Ford Windsor | 1.843 | 1.546 |
| (D) | Chrysler | 2.020 | 1.625 |

- (13) Titanium or hollow valves are not permitted.
- (14) Titanium valve spring retainers and keepers permitted.
- (15) Port matching, flow work or acid porting is not permitted.
- (16) Internal polishing, porting, removal of metal, and/or any other kind of modification will not be permitted.
- (17) External changes of any kind not covered within these rules are not permitted.
- (18) Vortec heads not permitted.

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

- (1) Only standard steel production design crankshafts permitted.
- (2) Only magnetic steel O.E.M. part numbered crankshaft.
- (3) Crankshaft absolute minimum weight will be 49lbs.
- (4) Balancing is permitted.
- (5) Crankshaft dimensions acceptable at minimum specifications:

| | | Main journals | Rod journals |
|-----|----------------|-------------------|-------------------|
| (A) | General motors | 2.450 minus 0.030 | 2.000 minus 0.030 |
| (B) | Ford | 2.749 minus 0.030 | 2.100 minus 0.030 |
| (C) | Chrysler | 2.810 minus 0.030 | 2.100 minus 0.030 |

- (6) Only steel or standard OEM steel type harmonic balancers are permitted.
- (7) Minimum diameter of six (6) inches is required on all balancers.
- (8) Six (6) inch minimum fluid type dampener.

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

- (1) Titanium valve spring retainers are permitted.
- (2) Cast iron camshaft with conventional type flat tappet lifters are permitted. Hydraulic or flat tappet camshafts only are permitted. No roller lifter camshafts are permitted.
- (3) No sleeving of lifter bores.
- (4) Gear drives not permitted.
- (5) Belt drives are not permitted.
- (6) Solid steel or steel 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 permitted. Screw in rocker studs and guide plate may be installed but must remain in stock location.
- (9) Stud girdles permitted.
- (10) No roller camshaft bearings.
- (11) Shaft type rockers not permitted.

(m) **Intake Manifold:**

- (1) Edelbrock Victor Jr. Sportsman 2V, (P/N 2901 or 2940) intake manifold only. The manifold must

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remain as produced by the original manufacturer.

- (2) No drilling or flow improvement work is allowed.
 - (3) The carburetor mounting flange may be reduced in height by milling, with a square cut, to a maximum of one (1) inch.
 - (4) No port matching.
- (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.
 - (F) Hole for distributor vacuum advance must be plugged air tight,
 - (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:**

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- (A) Toyota Speedway at Irwindale restrictors must be used on all cars at all times.
 - (i) Cars with non-spec motors must use Toyota Speedway at Irwindale restrictor P/N 125.
 - (ii) Cars with spec motors must use Toyota Speedway at Irwindale plate P/N 139.
 - (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 permitted. 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, powder, or gel.
 - (3) 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. Top air filter lid must be flat, but will except clearance for nut.
 - (4) No carburetor (air-flow control) hats.
 - (5) Only round uncoated metal air filter housings permitted. Cold air boxes are not permitted.
 - (6) Only the round ring of the bottom metal air filter housing may touch the carburetor.
 - (7) Controlled vacuum leaks are not allowed.
 - (8) No lips or expanded edges permitted.
 - (9) Absolutely no ducts or hoses permitted on or leading to the air cleaner or element. Only the rear facing hood scoop mentioned will be allowed for the intake of air.
 - (10) Shields or deflectors of any type near the air cleaner not permitted, except, it is permissible to attach a shield to the front area of the cleaner housing up to a maximum of half the air cleaner circumference; the shield must not be higher than the height of the air cleaner filter.
 - (11) Tubes, funnels, or any device that may control the flow of air will not be permitted inside of the filter or between the air filter housing and the carburetor.

6. ENGINE/CAR ELECTRICAL SYSTEM

- (a) **Ignition System:**
- (1) Stock OEM type distributors only (HEI only).
 - (2) Remote ignition boxes not permitted.
 - (3) All ignition systems are subject to approval of Toyota Speedway at Irwindale.
 - (4) Any make of spark plug may be used provided it is stock in appearance and function.
- (b) **Alternator:** An approved alternator may be used.
- (c) **Starter:**
- (1) Starters must remain in stock location.
 - (2) The self-starter must be in working order and located in the bell housing. 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.

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- (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.
- (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 are not 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. All radio frequencies must be cleared by the Toyota Speedway at Irwindale radio vendor prior to competition.
 - (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) Any brand allowed.
 - (2) No external re-circulators or pumps.
 - (3) Standard type water pumps only. Impellers may be altered.
 - (4) Only standard production V-type or serpentine belts and pulleys are permitted. No cog type belts or drives.
 - (5) Electric water pump not permitted.
- (c) **Fan:**
- (1) When a standard steel fan is used, it must have a minimum of four (4) blades.
 - (2) Minimum diameter of fan must be 14 inches.
 - (3) Fan used for qualifying must also be used in racing event.
 - (4) Electric fans are permitted.
- (d) **Fan Shroud and Ducts:**
- (1) A fan guard must be installed. The guard may not extend more than 1-inch past the fan blades. No other type of baffles or ducting permitted.
 - (2) 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.

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- (2) Aluminum radiators are permitted.
- (3) Any approved pressure cap may be used.
- (4) 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 hose 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) Dry sump oil systems will not be permitted.
- (2) Factory oiling systems only.
- (3) No external pumps are permitted.

9. ENGINE EXHAUST SYSTEM

(a) **Exhaust Manifold:**

- (1) Any OEM cast iron exhaust manifold permitted.
- (2) Street type headers, maximum 1-5/8 inch (O.D.) outside diameter tubes, entire length from flange to collector.
- (3) No step tubes.
- (4) Manifold or header spacers are not permitted.
- (5) Manifold or header must bolt to head.
- (6) Stainless Steel headers not permitted.

(b) **Exhaust Pipes:**

- (1) Exhaust pipes from header to the muffler (or 2 into 1 collector) shall be no larger than three (3) inches in diameter.
- (2) The exhaust pipe exiting the muffler (or 2 into 1 collector) shall be no larger than five (5) inches.
- (3) Merge systems will not be permitted.
- (4) Pipes must be securely fastened to manifold or headers and attached to frame in a minimum of two (2) bolts to frame.
- (5) Exhaust pipes must extend past driver and either turn down or to outside of car.
- (6) 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.
- (7) Tri-Y header, connectors, or pipes not permitted.
- (8) The following part number headers will be allowed with no penalty:
 - (A) Schoenfeld 151 ELCM.
 - (B) Schoenfeld 135 CM.
 - (C) Schoenfeld 135 HCM.
 - (D) Schoenfeld 145 CM.

(c) **Heat Shields:**

- (1) 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.
- (2) A heat shield for the distributor may be used, but it must be no larger than eight (8) inches by ten (10) inches.

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- (3) Heat shields for exhaust may only be place over the cylinder head location only.
- (4) A heat resistant floor mat, that is properly secured, may be used in the driver's compartment.
- (5) Thermal wrapping of exhaust pipes is permitted from the header connection rearward, however the header itself may not be wrapped.
- (6) Heat shields for master and clutch cylinders permitted 6-inch X 10-inch maximum.
- (7) These are the only acceptable heat shields.

(d) **Mufflers:**

- (1) Any approved muffler or mufflers may be used with the following requirements:
- (2) Mufflers must be capable of maintaining a maximum of 90 DECIBALS AT 100 FEET.
- (3) If a car should exceed the maximum decibel level, at any time, it will be disqualified until an acceptable noise level is attained.
- (4) Mufflers must be in place at all times.
- (5) 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 is permitted.
- (3) Clutch pressure plate and discs are limited to steel only.
- (4) Minimum diameter of clutch discs will be 7 inches.
- (5) Clutch must be located in bell housing and must be in place at all times.
- (6) All cars must have a working clutch.
- (7) No direct coupling type units.
- (8) Non-magnetic pressure plate cover allowed.

(b) **Flywheel:**

- (1) The flywheel must be made of steel or aluminum.
- (2) Flywheel diameter must be a minimum of 12-3/4 inches.
- (3) Starter ring gear must be attached to flywheel.

(c) **Bell Housing:**

- (1) Steel bell housing or an approved scatter-shield is mandatory.
- (2) Aluminum bell housings not permitted.

(d) **Transmission:**

- (1) Transmission must be OEM stock type only.
- (2) The manual Richmond T10 permitted.
- (3) Transmission must be located in stock location.
- (4) Transmission may be interchanged from make to make.
- (5) Manuals:
 - (A) Gears may not be cut, altered, or lightened.
 - (B) Gears must be stock.
 - (C) No cutting or altering transmission cases.
 - (D) Transmissions may have gears removed, but must retain a minimum of two (2) forward gears and one (1) reverse gear operational from driver's compartment.
- (6) Automatics:
 - (A) Automatic transmission must retain torque converter.
 - (B) Automatic transmission with in-out coupler or valve to bypass torque converter not permitted.
- (7) Aftermarket production transmissions not permitted, including but not limited to, Jerico, Tex101, and Doug Nash transmissions.
- (8) Five (5) speed transmissions not permitted.

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(e) Drive Shaft:

- (1) Only one-piece magnetic steel drive shafts with a minimum diameter of 2.750 inches and a maximum of 3.50-inch. Minimum drive shaft thickness of 0.060-inch.
- (2) Heavy duty, OEM type, universal joints are mandatory.
- (3) It is mandatory that two 1/8-inch x 1-½ inch steel drive shaft guards (loops) front and rear be installed in a safe manner and installed so as to prevent the drive shaft from becoming dislodged and falling onto the race track.
- (4) Drive shaft hoops must be installed so hoops capture driveline 360 degrees.
- (5) All drive shafts must be painted white.
- (6) All drive shafts must have car number painted on tubing.
- (7) No aluminum drive shafts or components.

(f) Rear Axle:

- (1) The rear axle housing must remain in stock location.
- (2) Rear axle may be interchanged, make and model.
- (3) A steel, full floating 9-inch Ford rear axle housing is recommended.
- (4) Axle housing must be made of magnetic steel.
- (5) The centerline of the rear end pinion must be within one-half (1/2) inch of the rear hubs, measured from left and right hubs where the wheels bolt on.
- (6) Third member including bearing retainer and yoke must be made of magnetic steel.
- (7) Solid magnetic steel axles only. Material other than steel is not permitted.
- (8) Stainless steel axles not permitted.
- (9) Quick-change rear end not permitted.
- (10) No cambered rear ends.
- (11) No tapered or crowned rear axles.
- (12) Drive plates may be made of steel or aluminum only.
- (13) Rear axle coolers not permitted.

(g) Wheels and Lug Bolts:

- (1) Only approved 15-inch diameter steel wheels with a maximum 8-inch rim width and a reinforced center are permitted.
- (2) Wheels must maintain the same width and offset on all four wheels.
- (3) Wheels must weight a minimum of 18 pounds.
- (4) Solid heavy-duty 5/8-inch steel studs and nuts must be used on all four wheels.
- (5) Wheel studs must protrude past lug nuts.
- (6) The use of bleeder valves is not permitted.
- (7) One valve stem per wheel.
- (8) All tire/wheel balance weights must be on the inside of wheel.
- (9) Wheel spacer maximum 1/2-inch and (1) per wheel only permitted.

(h) Tires:

- (1) Tires must be purchased from Toyota Speedway at Irwindale.
- (2) Approved tire is Hoosier 2040 8".
- (3) Toyota Speedway at Irwindale approved tires, purchased at Toyota Speedway at Irwindale, is permitted.
- (4) Tires will be branded and limited tire purchases will be enforced.
- (5) Tires that have been altered by unauthorized treatment will not be permitted.
- (6) Tire soaking is not allowed at anytime, penalty for this will be one-year suspension.

(i) Tire Usage Rules:

- (1) Toyota Speedway at Irwindale will endeavor to lower the costs associated with racing by limiting the amount of tires any competitor may purchase. 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 purchase a maximum of six (6) new tires. The second and third events of the season Late Model schedule each driver

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will be allowed to buy four (4) tires. These first three events will be the only opportunity to purchase more than two (2) tires at a time until the final points race of the season unless otherwise notified by Toyota Speedway at Irwindale Tech Officials.

- (2) Tires purchased for non-race day practice sessions, or tires from last season may not be used at anytime on race day. (Opening Day practice sessions will permit old or test tires).
- (3) On each day that Toyota Speedway at Irwindale holds a NASCAR Late Model Stock Car racing event, each competitor who has a car eligible and ready for competition will be allowed to purchase two (2) tires. Cars must attempt to qualify and compete. What constitutes a qualifying attempt shall be left to the discretion of the Tech Official in charge. If the car does not attempt to qualify and compete, the tires will be considered NEW for the next event. Under no circumstance will an owner, competitor, or his/her agents, be allowed to purchase more than two (2) tires per race after Opening Day. Each tire will be branded, logged, and recorded by Toyota Speedway at Irwindale Tech Officials.
- (4) Only tires which have been purchased for a certain car may be used on that car at any time. Violation shall result in disqualification, and/or suspension, and/or fine, and/or loss of championship points.
- (5) In the event that a competitor is unable to attend or compete on Opening Day, at their first race at Toyota Speedway at Irwindale they may purchase five (5) new tires.
- (6) In the event that a competitor flattens or damages more than one tire in an accident etc., only one (1) new tire per race event will be purchased and the remaining amount must be replaced by used tires, from Toyota Speedway at Irwindale stock. 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.
- (7) Toyota Speedway at Irwindale reserves the right to impound tires for storage between events.
- (8) Tires will be marked in the mold by the designated tire company for Toyota Speedway at Irwindale. Only tires purchased at Toyota Speedway at Irwindale will be eligible for use at anytime. On opening day, any tire may be used for practice.
- (9) Special events, if any, may not be subject to these rules.

11. FRAME REQUIREMENTS (CHASSIS)

- (a) Any passenger car chassis 1965 to current.
- (b) **Tubular** front sub-frames must comply with the All-American Series Rule Book, Frame Requirements, pursuant to Sections 11, 11.1, and 11.2.
- (c) Approved front replacement clips:
 - (1) Port City Racing, limited late model tubular clip, P/N 100-2-205.
 - (2) Race Car Factory, fabricated front clip, P/N 5506.
 - (3) Victory Circle, front clip, P/N VCC-02-8055.
 - (4) JRC, clip P/N 75.
 - (5) PCM, clip P/N 0068.
- (d) **Full Frame Chassis:**
 - (1) All frames must be complete and retain OEM specification and dimensions as manufactured.
 - (2) On a full frame chassis, square tubing, 2-inch x 2-inch x .095-inch minimum, may be used from the rear end housing to the back.
 - (3) On all full frame cars, weight trays may be welded to the sides of stock rails.
 - (4) Stock front clips may be notched for shock clearance and for ease of coil spring removal, subject to approval.
 - (5) Stock frame may be notched for fuel pump clearance.
 - (6) Engine cross member must remain stock and may only be notched for oil pan clearance.
 - (7) If chassis being used is longer, it may be shortened on ends of side frame rails only.
- (e) **Unibody Frame Chassis:**

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- (1) A complete stock front clip must be used.
- (2) All front clips must be complete and retain OEM specifications and dimensions.
- (3) Unibody frame may tie the front and rear sub frames together by using 2-inch x 3-inch x .095-inch square tubing.
- (4) Any frame with reconstructed frame rails must have leaf spring rear suspension.
- (5) Rear frame rails may be replaced with a minimum 2-inch x 2-inch x .095-inch square tubing, however must retain original configuration.
- (f) Stock front horns must extend to the leading edge of the radiator on both sides.
- (g) No drilling holes in frame rails for the purpose of lightening.
- (h) No offset chassis allowed.
- (i) No interchanging of frames, A-Body to B-Body not permitted.
- (j) Cars using the ZZ4 (Fast Burn) spec motor can use any Chevy, Ford, or Dodge frame.

12. SUSPENSION

(a) General Suspension:

- (1) Three link rear suspension will be allowed subject to weight penalty.

(b) Front Suspensions:

- (1) Front suspension must be reinforced and meet the following requirements:

(c) Front Coil Springs:

- (1) Front springs must be OEM type.
- (2) Front springs must remain in stock location.
- (3) All front coil springs must maintain a minimum outside diameter of 5-1/4 inches and a maximum outside diameter of 5-3/4 inches.

(d) Rear Suspensions:

- (1) Rear suspension must be reinforced and meet the following requirements:
- (2) Rear suspension components must remain stock type or equivalent to OEM parts.
- (3) Stock OEM rubber, polyurethane or Delron bushing for upper links, lower links and leaf springs permitted only.
- (4) Rear leaf spring cars may move front mount or rear mount, but not both.
- (5) Leaf shackles with multiple holes permitted.
- (6) Rear leaf spring adjustable type mount permitted.
- (7) Rear leaf spring shackle sliders permitted.
- (8) The rear springs must mount on the rear axle in equal distance left to right.
- (9) Only one (1) adjustable lowering block on one side of the rear axle permitted.
- (10) Composite leaf springs not permitted.

(11) Trailing Arms:

- (A) Adjustable rear trailing arms will not be permitted. All trailing arms and mounting brackets must be acceptable to Track Officials. The third link (torque rod) must be a single one-piece, straight, round, solid or tubular bar with heim-joints (spherical rod ends) on each end. Rubber bumpers, springs or spring loaded bars will not be permitted. The rear axle housing must be held in the center of the car side to side by a single one-piece straight round tubular panhard bar, "J" bar or Watts Linkage behind the rear axle connected to the frame on the right side and the rear axle housing on the left side. Aluminum heim-joints (spherical rod ends) will not be permitted.
- (B) Adjustable heim-joints (spherical rod ends) on each end, will be permitted, The panhard bar mounting bolt, at each end of the panhard bar, must be 3/4 inch in diameter and must include a 1/8 inch thick magnetic steel washer with an outside diameter larger than the body of the heim-joint (spherical rod end). Movable threaded-screw adjusters will be permitted on the panhard bar. If used the movable threaded-screw adjuster must be mounted on the frame mount side. The upper adjustment to the threaded-screw bracket (located just under the rear window) must share the same vertical centerline with the

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threaded-screw bracket. The panhard bar, panhard bar brackets and/or components, must not be lower than the lowest edge of the wheel (rim).

(e) **Rear Coil Springs:**

- (1) The use of a racing spring, provided it is of a stock appearing type, is permitted.
- (2) Rear coil springs must remain in stock location.
- (3) Rear coil springs must be steel and maintain a minimum 4-3/4 inch diameter OD and maximum 5-1/4 inch OD.

(f) **Sway Bars (Anti-Roll Bar):**

- (1) Sway bar components must be made of steel.
- (2) Sway bar heim joint may connect to lower A-Arm.
- (3) Sway bars must be one-piece steel only.
- (4) Howe type sway bar adjusters are permitted.
- (5) Sway bar may not be adjustable from inside.
- (6) Sway bar for rear axle not permitted.

(g) **Track Bar:** Section held for possible future use.

(h) **Shock Absorbers:**

- (1) Shock absorbers must provide a resultant force dependent upon piston velocity and must be acceptable to Track Officials. Shock absorbers and components must be used as supplied by the manufacturer and all components must be used in only their respective manufacturer's shock absorber. Modifications or changes to the shock absorber and internal components will not be permitted. Shock absorbers and components must be available to all Competitors and must meet the following requirements.
- (2) Track Officials may use a shock absorber and internal components provided by the respective manufacturer as a guide in determining whether a Competitor's shock absorber and internal components conforms to the specification of the Rule Book. At any time, the shock absorbers must fully compress and fully extend the entire length of the shock absorber shaft without any type of mechanical assistance within a reasonable amount of time and with a reasonable amount of effort applied to the shock absorber, as compared to other competitor's shock absorbers. Remote or electronically controlled shock absorbers will not be permitted.
- (3) Quick disconnect shock absorber mounts will not be permitted. The shocks absorbers must should be attached with nuts and bolts. Adjustable shock absorber mounts of any type will not be permitted.
- (4) Heating pads, blankets or any other heating devices will not be permitted for warming the shock absorbers. Shock absorbers and internal components are subject to inspection at any time by Track Officials.
- (5) It is the responsibility of the driver, not Track Officials, to ensure the shock absorbers are used in accordance with the manufacturer's instructions and specifications.
- (6) Shock body and shaft must be made of steel. Shocks must be heavy duty or racing type, but OEM similar to original type only. Shocks must be an emulsion type shock only. When shocks are compressed, they must remain compressed. Shock unit must be one piece only. Only one shock per wheel is permitted. Monotube type shocks not permitted. No external reservoir type shocks allowed. No base valve shocks permitted.
- (7) Shocks must be mounted in stock location. External adjustments will not be permitted on any shock. External schrader valve to pressurize the shock with gas will not be permitted. No nitrogen charged shocks.
- (8) All shocks must be available to all competitors through a catalog number and available from shock manufacture.
- (9) Approved shocks:
 - (A) QA1 Steel 50 Series.
 - (B) Advance Racing Suspensions Inc., 2000 Series, non-adjustable, steel body.
- (10) Shock components may not be interchanged or mixed with different shock manufactures.

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- (11) All shocks are subject to approval of the Toyota Speedway at Irwindale Tech Officials.
- (i) **A-Frames:**
- (1) All A-arms must be made of magnetic steel and cross-shafts must be magnetic steel or aluminum.
 - (2) Upper A-arm frame mounts can be repositioned.
 - (3) Upper arms must be adjusted with washers or shims for caster and camber.
 - (4) Any upper magnetic steel A-arm (tubular arms permitted).
 - (5) A-arms with monoball or spherical type joints are not permitted.
 - (6) Heim joints on upper a-arms components not permitted.
 - (7) Lower A-arm ball joints may be an adjustable magnetic steel type.
 - (8) Lower A-arms must be stock or OEM type and mounted in stock location.
 - (9) Lower A-arms must be same length.
 - (10) Lower A-arm bushings must be stock, rubber, polyurethane or Delron plastic, only.
 - (11) Offset bushings or slotted adjustments will not be permitted in lower A-frame.
- (j) **Spindles, Wheel Bearings and Hubs:**
- (1) Any Stock OEM front spindle.
 - (2) Hubs and rotor must be magnetic steel.
 - (3) Aluminum hubs are not permitted.
 - (4) One-piece front hub and rotor assembly or aftermarket stock type equivalent permitted.
 - (5) Approved Hubs:
 - (A) Speedway Engineering: 5320 Hub, FR Steel, GM Midsize ('73-'81 #2 Spindle) 5 x 5.
- (k) **Tread Width Requirements:**
- (1) Front and rear tread width shall not exceed a maximum of 75" measured from the outside of rim at bead of tire to outside of rim at bead of tire at spindle height. The tread width will be determined by measuring from the left rear outside wheel bead surface to the right rear outside wheel bead surface at spindle height.
 - (2) The distance from the centerline of the tread width, front and rear, to the mounting points of the lower A-arms, left and right, must be the same.
- (l) **Wheelbase Requirements:**
- (1) A minimum 105 to 108 inch wheelbase will be allowed, plus or minus ½-inch on opposite side.
- (m) **Body Height Requirements:**
- (1) Roof height must be a minimum of 47 inches, measured 10 inches to 25 inches from front of windshield at centerline of roof to ground.
 - (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 body shall be lower than minimum 4 inches at anytime.
 - (2) Rocker panels 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.
 - (4) Belly pans not permitted.
- (o) **Car Height Adjusting Devices:**
- (1) Front and rear suspension weight jacking bolts permitted.

13. STEERING

- (a) All steering component including tie rod sleeves must be steel.
- (b) Tie rods, tie rod ends, sleeves, and steering boxes, must be stock OEM parts. Modifying or lightening OEM steering parts not permitted.
- (c) Centerlink Howe part # 23396 has been approved for competition.
- (d) Steering box must remain in original location.
- (e) No rack and pinion steering permitted.

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- (f) Heim joints not allowed on steering components except as permitted.
 - (1) Magnetic steel Heim joints will be allowed ONLY at outer tie rod ends to spindles.
- (g) An approved all metal quick-release steering wheel coupler must be used.
- (h) Center of steering wheel must be padded with 2-inch of resilient material.
- (i) All steering columns are required to have a collapsible section or have two (2) unsupported universal joints.
- (j) Recommended ¾-inch solid steering shaft or 0.120-inch wall tubing.

14. BRAKES AND COOLING COMPONENTS

(a) Brake Components:

- (1) Four wheel hydraulic brakes in good operating condition are mandatory.
- (2) Four wheel disc brakes recommended.
- (3) No aluminum brake drums permitted.
- (4) Drilling or coating of any drum or rotor is not permitted.
- (5) Stock OEM type magnetic steel brake calipers only.
- (6) Scalloped rotors are not permitted.
- (7) One (1) adjustable proportioning valve in the driver's compartment within reach of the driver permitted.
- (8) Master cylinders and reservoirs should be mounted in the engine compartment.
- (9) When master cylinders are mounted in driver's compartment they must be covered.
- (10) Electric brake actuators are not permitted.
- (11) Any brake pedal and master cylinder assembly permitted.
- (12) No carbon fiber components.
- (13) Rotors:
 - (A) Stock type front and rear rotors only.
 - (B) OEM aftermarket type rotors with the approval of Toyota Speedway at Irwindale Tech Officials.
 - (C) Minimum rotor size: Front: 0.750 inch x 11.500 inch.
 - (D) Minimum rotor size: Rear: 0.700 inch x 11.750 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.

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 with no blending between each other. 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 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 component.
- (f) Nitrous oxide prohibited.

16. FUEL SYSTEM

(a) Fuel Cell:

- (1) All cars must be equipped with an approved fuel cell.

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- (2) Capacity shall be a maximum of 22 gallons and a minimum of 12 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 ten (10) inches off the ground at all times.
 - (2) Cell shall be securely mounted in the trunk area as far forward as possible.
 - (3) Fuel cells must be mounted centered equal distance between frame rails as far forward as possible.
 - (4) A steel framework, welded to frame rails, must be used to mount fuel cell. This framework must be fabricated from a minimum of 1-inch x 1-inch x .065-inch square tubing.
 - (5) 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.
 - (6) Fuel cells must be bolted to steel framework in a minimum of eight (8) places.
 - (7) Fuel cell may not be within (1) inch of rear frame cross member.
 - (8) The fuel cell container support frame must be magnetic steel meeting the ASTM A-500 specifications.
 - (9) A fuel cell protector bar made from a minimum of one and one-half (1-½) inch by .090 steel tubing is required. The length must be greater than the width of the fuel cell, and must extend lower than the fuel cell.
- (d) **Fuel Filler and Vent Requirements:**
- (1) A fuel vent check valve is mandatory.
 - (2) Filler spout must remain in the trunk area sealed off from driver.
 - (3) Fuel cell vent hose maximum 1-inch, and hose 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 permitted. Maximum diameter 5/8 inch ID.
 - (2) If line runs in drivers compartment, it must be enclosed in a steel tube and must go the most direct route and subject to Toyota Speedway at Irwindale Tech Official approval.
- (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) Any approved gas filter may be used. Maximum capacity of 1 quart (US) allowed.
 - (2) Single pass filters only.
 - (3) Glass fuel filters not permitted.
- (h) **Fuel Filler Cans:**
- (1) It is required that fuel be stored in an approved container.

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.

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(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 the driver's suit be of the best quality fire protection available.
- (3) 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 fire suppression system (not of the dry chemical type), with an operating pressure gauge.
- (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 their pit area.

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

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

(e) **Seat Belts:**

- (1) It is highly recommended that the driver carefully study seat belt manufacturer's installation guidelines.
- (2) All seat belts must be a complete matching set from the manufacture. No mixing of manufactures.
- (3) A quick release seat belt no less than three (3) inches wide is compulsory. 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.
- (4) Shoulder harness must be no less than three (3) inches in width and must come 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.
- (5) 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.
- (6) Where belts pass through the seat edges, the edge must have a grommet or be rolled to prevent belt from being cut.
- (7) All belts must connect in a single latch, at the lap belt. Latch must be approved quick release type.
- (8) Belts must be replaced every 2 years and all belts must be dated by manufacturer or vendor.
- (9) All seat belt mounting must meet the approval of the Toyota Speedway at Irwindale Tech Officials.
- (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.
- (2) Seats must be mounted with a minimum of (6) 3/8 inch grade 5 bolts. Two bolts must be located at the front of seat and two on bottom rear (or two on the lower back of seat) and two at #7 roll cage bar at upper seat back (see NASCAR All-American Series Rule Book diagrams).
- (3) It is recommended that the seat also offer rib protection and have leg extensions.
- (4) Headrest recommended on side of head.
- (5) No fiberglass seats permitted.
- (6) Seats must have a built-in padded headrest behind head.

(g) **Roll Bars:**

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- (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 car. All door bars except the bottom door bar must be convex, and the bottom bar may be straight.
- (5) If car has an "X-design" on the right side, it must also have (3) convex door bars. X's do not have to be cut out.
- (6) Main roll cage, (see NASCAR All-American Series Rule Book diagrams) two (2) #13 rear down bars and two (2) #16 front sub frame bars must be 1-¾ inches x .090 inch minimum round magnetic steel tubing.
- (7) 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.
- (8) All areas of roll cage near driver and within his/her reach must be padded with approved padding.
- (9) All cars with steel covering over inside door bars on driver's side must be padded.
- (10) 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.
- (11) 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, minimum 1/8-inch plate may be cut and welded into the door bar gaps.
- (12) 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 Weekly Racing 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.