

# OFFICIAL 2009 – 2011 SPECIFICATIONS FOR NASCAR SUPER STOCK

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 WEEKLY 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 Official.

## 1. COMPETING MODELS

- (a) Super Stock division will be open to all American made stock appearing passenger cars provided they comply with, and adhere to, specifications as outlined for this division.
- (b) There will be no trucks, convertibles, vans, or Corvairs allowed to compete.
- (c) 1970 through 1987 cars are the only eligible models approved for competition.

## 2. GENERAL CAR AND BODY REQUIREMENTS

### (a) General Car:

- (1) Body must be complete. Body should be stock and neat in appearance.
- (2) No cutting or altering of body without approval by Toyota Speedway at Irwindale.
- (3) Headlights, taillights and other exterior lights must be removed.
- (4) Headlight and taillight area must be covered neatly with sheet metal.
- (5) All exterior chrome trim must be removed.
- (6) No carbon fiber, Kevlar or titanium parts allowed.
- (7) No sheet metal screws due to tire hazards.
- (8) Five Star Racecar Bodies, 2009 S2 Sportsman, complete body approved and permitted for competition.

### (b) Floorboards:

- (1) All holes in floor must be sealed.
- (2) Complete stock floorboards are mandatory and must extend to rear firewall. Passenger side floor may be pushed up or cut loose and flipped over and re-welded into place for exhaust system clearance. Modifications may not be higher than driveshaft tunnel. All holes and gaps must be sealed.

### (c) Interiors:

- (1) All interior brackets under dash and around pedal must be removed.
- (2) All interior upholstery must be removed.
- (3) Only 22-gauge or thicker sheet steel will be permitted in the interior.
- (4) No aluminum will be allowed in vehicles interiors.
- (5) Interiors must be completely open, no "late model" type sheet metal work.

### (d) Overall Car Weight:

- (1) Minimum car weight 3,050 pounds with driver before the race.
- (2) Maximum weight on the left side 54% with driver.
- (3) All cars will be weighed on Toyota Speedway at Irwindale's scales. These scales will be the only method for determining a cars weight.

### (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) All added weight located inside the driver's compartment must be properly secured with a

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minimum ½ inch, grade 5 bolts. Any weight inside the driver's compartment must be supported with a minimum a 1/8 inch steel base plate welded to floor.

- (6) 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.
- (7) Devices for shifting weight not permitted at any time.
- (8) Cars losing ANY added weight or failing to bolt weight in a safe manner in the car, at a minimum, pay a \$10 per pound penalty. Dislodged weight will not be returned to the car 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:** May not protrude past the front bumper.

(b) **Rear Spoiler:**

- (1) Rear spoiler *not* permitted. ~~Spoiler must be attached to the rear of the deck lid. All cars must use a spoiler that is 5 ½ inches by 60 inches in width, with no plus or minus.~~
- (2) ~~No rudders, braces, or external supports of any kind are permitted.~~
- (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) polycarbonate 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.~~

(c) **Windshields:**

- (1) All glass must be removed.
- (2) Windshields must be a minimum of 1/8-inch Lexan polycarbonate.
- (3) Windshield must be securely mounted with two (2) outside and (2) inside vertical straps no less than 1/8-inch x 1-inch. Straps must be bolted top and bottom with minimum ¼-inch bolts.

(d) **Rear Window:** No rear glass allowed.

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

(1) **Side Windows:**

(A) No door or quarter glass allowed.

(2) **Quarter Windows:** Not permitted.

(3) **Air Deflectors:** Not permitted.

(4) **Window Net:**

(A) Window net mandatory. No string type nets. Window net to be 1-inch mesh.

(B) Window net must be permanently mounted at bottom with approved quick release at top. Seatbelt buckle type not permitted.

(C) Window net must be within 5 years of manufacture date.

(D) Window net must have manufacture's date tag or will not be permitted.

(E) 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.

(F) 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) One (1) rear view mirror allowed, mounted in center of car.

(2) Mirrors must not extend outside the normal bodylines.

(3) Left side small 4-inch spot mirror permitted.

(g) **Dash Panel:**

(1) Must have a full dashboard, the width of dash bar. No offset dashes.

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(h) **Firewalls:**

- (1) Front and rear firewalls must be sealed.
- (2) Stock front firewall in stock location required.
- (3) Rear firewall may be fabricated in stock location.
- (4) Rear firewall must be a minimum of 22-gauge steel.
- (5) Rear package tray must be retained in stock location.

(i) **Doors:**

- (1) Doors may be fabricated of 22-gauge steel if not stock skins and must retain original shape and configuration.
- (2) Doors must be securely attached and sealed at bottoms.
- (3) Doors must be securely bolted to roll cage in a minimum of four (4) places per door.

(j) **Fenders:**

- (1) If fenders or quarters are repaired, they must retain stock dimension. Minimum 22-gauge steel required.
- (2) Approved front fiberglass fenders permitted. Fiberglass front fenders must retain stock fender dimensions and contours.
- (3) Rear wheel wells must retain stock locations and dimensions.
- (4) All wheel wells must be rolled and free of sharp edges and show good workmanship.
- (5) Inner fender wells may be removed from trunk area.
- (6) Front inner wheel wells may be removed.
- (7) Rear fiberglass fenders not permitted.

(k) **Quarter and Rocker Panels:**

- (1) Fiberglass quarter skins not permitted.
- (2) Rocker panels skirts may be used but must extend straight down, not flared.

(l) **Grilles:**

- (1) Must have wire mesh or stock type grill in place.
- (2) Openings must retain the same shape and size as the stock production.

(m) **Hood:**

- (1) Approved fiberglass hoods may be used.
- (2) Hoods must be securely fastened with 4 pins across front and 2 pins across rear (unless hinged).
- (3) Hood must seal to cowl or base of windshield.
- (4) Maximum hood bow allowed will be two (2) inches and the maximum scoop height will be three (3) inches, and must be sealed to windshield.
- (5) No fill holes in hood.

(n) **Roof:** Stock metal roof retaining original contours and angles only.

(o) **Rear Deck Lids:**

- (1) Deck lid must be securely fastened. Two (2) pins at rear if hinged at front, otherwise four (4) pins on deck lid.
- (2) Rear deck lids over the fuel cell must be either magnetic steel OEM sheet metal or 22-gauge magnetic steel.

(p) **Bumpers:**

- (1) Stock type front and rear bumpers.
- (2) Any bumper not matching body style must be approved before installation. If a plastic front bumper is used it must be mounted in a stock appearing manner. Lower edge may not protrude excessively and maintain a four (4) inch ride height.
- (3) Bumper brackets may be fabricated. No excessive reinforcing.
- (4) Rear bumper straps mandatory, full width of bumper, and must be 1/8-inch inch minimum thickness.
- (5) Bumper height, front and rear must be 16 to 18 inches measured at center of bumper.
- (6) Front and rear bumpers must be fastened to fender and quarters.

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- (7) Aluminum bumpers allowed.
- (q) **Identification and Marking:**
  - (1) Tech Officials have the right to temporarily change racecar numbers to avoid duplication.
  - (2) NASCAR reserves the right to assign or restrict the display of decals, identification, and advertising on race cars.
  - (3) Numbers must be at least 18 inches high and neatly painted on both sides of the car in the center of the door.
  - (4) The top front corner of each door should be available for the placement of series sponsor decals.
  - (5) A number 24 inches high must be painted on the roof, reading from the passenger side.
  - (6) Decals are permissible in place of painted numbers.
  - (7) Gold or Silver foil numbers are not permitted.
  - (8) All Super Stock racecar numbers will be issued through the track.
  - (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.
  - (11) All cars must display an approved 8 inch white car number decal in the upper-right (passenger-side) of the front windshield.

### 4. GENERAL ENGINE REQUIREMENTS

- (a) Engine will be of stock type within same product line (i.e. Chevrolet to Chevrolet, Ford to Ford).
- (b) No 400 C.I.D. small blocks or parts allowed (i.e. crankshaft).
- (c) No titanium engine parts.
- (d) Optional Spec Motor: Chevy Circle Track 350 CID crate engine, p/n 88958602 permitted. This motor will be available to Super Stock competitors at the lowest possible price.
  - (1) Engine must be purchased complete and sealed. Competitors must obtain a certificate from Toyota Speedway at Irwindale to purchase crate engine to be eligible for competition.
  - (2) Engine is sealed at intake manifold. Seals may not be broken, removed or replaced except by approved spec motor vendor or Track Official.
  - (3) Engine may not be modified in any way and must remain intact as originally sold.
  - (4) Any repairs to engine requiring breaking or removing of engine seals may only be performed by approved spec motor vendor.
  - (5) Rocker type and ratio must remain as supplied.
  - (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 the OEM design when measured on or off the head. Installed valve spring length (valve spring installed height) must remain as produced.
  - (7) Crate motor balancer and flywheel required and must remain unmodified.
  - (8) Post race inspection requiring "tear down" of engine may or may not apply to verified sealed spec engines at the discretion of Track Officials.
  - (9) Cars with spec motors must use Toyota Speedway at Irwindale plate ZZ4.
  - (10) The following is the only approved spec crate motor supplier, rebuild and reseal vendor:
    - (A) GM Performance, Guaranty Chevrolet, 711 East 17th St., Santa Ana, CA, (800) 514-1622.
  - (11) Crate motor HEI distributor required, as produced from GM, must remain unmodified and unaltered from OEM.
  - (12) Cars with crate motor must NOT have a rear end gear ratio lower than 488 at any time.

### 5. DETAILED ENGINE REQUIREMENTS

- (a) **Engine Location:**
  - (1) All engines must be located so the front sparkplug on right side of engine is a minimum of 1.0 inch forward of a line drawn between the center of each upper control arm mounts.
  - (2) Engine must be centered in chassis.

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- (b) **Engine Ground Clearance:** Must have 3-1/2 inches minimum ground clearance.
- (c) **Engine Mounts:** All mounts must be securely bolted and non-adjustable.
- (d) **Engine Displacement:** The maximum allowable cubic inch displacement at any time shall be 361.
- (e) **Engine Compression Ratio:**
  - (1) The term "9.00-1 compression ratio engine" shall mean any engine having a compression ratio of less than 9.00 to 1. The maximum compression ratio is 9.00 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) Engine block must retain all standard external dimensions with the notable exception of standard and customary machining, boring, 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.
  - (2) No aftermarket or aluminum blocks are permitted.
- (g) **Internal Changes:**
  - (1) Internal polishing of the engine block is NOT permitted. Light deburring is permissible.
  - (2) Screening of the intake valley area, for debris protection, is permitted.
- (h) **Piston/Rods:**
  - (1) Cast, hypereutectic, or TRW forged pistons only. Minimum piston weight 535 grams without pin.
  - (2) Pistons must use 5/64, 5/64, 3/16 inch rings only.
  - (3) Piston pins must be stock diameter and length .927 inch x 3.000 inch minimum.
  - (4) Connecting rods must be I-beam type replacement only.
  - (5) Maximum rod length 5.7000 inch with a minimum weight of 550 grams.
  - (6) Piston pins can be press fit or full floating.
- (i) **Oil Pans and Coolers:**
  - (1) A one-inch diameter minimum "inspection hole" located on the side of the oil pan accessible to inspect the rods. The inspection hole must be wire tied for safety. Inspection hole must be accessible from beneath the car and not blocked by a starter or cross member.
- (j) **Cylinder Heads:**
  - (1) O.E.M. cast iron straight plug cylinder heads only.
  - (2) No Vortec or performance head allowed.
  - (3) No porting or polishing allowed.
  - (4) Screw in studs and guide plates allowed.
  - (5) The maximum of a three-angle valve job is permitted. When cutting the valve seat angles, no stone, cutter or grinding marks are permitted above the bottom on 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 manufacturer. Surfaces, and/or edges, where the stone or cutter has touched must not be polished, smoothed, or radiused.
  - (6) Intake and exhaust valve must be O.E.M. type.
  - (7) Maximum valve diameter as measured across the valve surface 1.94 inch intake and 1.50 inch exhaust.
  - (8) Stock diameter valve springs and retainers only. Maximum retainer diameter 1.250 inch.
  - (9) No back cutting valve stem. Valve stem swirl polish maximum 0.025 inch permitted.
  - (10) No roller tip lifters or rocker arms permitted.
  - (11) No hand or CNC grinding, milling, or polishing is permitted on any other part of the head.
- (k) **Crankshaft and Harmonic Balancer:**
  - (1) Only magnetic steel O.E.M. part numbered crankshaft. Absolute minimum weight of 50lbs.
  - (2) A Scat crank part #9-10442 permitted.
  - (3) Chevrolet crankshaft minimum journal sizes:
    - (A) Mains: 2.450 minus .030.

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- (B) Rod journals: 2.100 minus .030.
- (l) **Camshaft, Valve Lifters, and Rocker Arms:**
  - (1) Any hydraulic cam allowed.
  - (2) Stock OEM type stamped steel rockers only permitted. Maximum 1.6 rocker ratio.
  - (3) No hydraulic roller cams.
  - (4) No gear or belt drives.
  - (5) Stud girdles permitted.
  - (6) Approved roller rockers:
    - (A) Chevy: Comp Cams P/N 1301-16 (1.5 ratio) and 1302-16.
    - (B) Dodge: Comp Cams P/N 1322-16.
    - (C) Ford: Comp Cams P/N 1331-16.
- (m) **Intake Manifold:**
  - (1) Intake manifold must be Edelbrock Performer, P/N 2101 or P/N 2104 untouched as produced. No acid porting. 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.
  - (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

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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 **plate** P/N **139 (ZZ4)** ~~425~~ 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 cleaner must be dry paper type maximum 14 inch x 4 inch.
- (2) Deflector shields may be used but must not cover more than 50% of filter surface.
- (3) Controlled vacuum leaks are not allowed.
- (4) Metal or plastic air filter housing, no Kevlar.
- (5) No flow control housings.

## 6. ENGINE/CAR ELECTRICAL SYSTEM

### (a) Ignition System:

- (1) Stock O.E.M. type single point distributor or HEI distributor.
- (2) No aftermarket billet type distributors.
- (3) No remote mounted ignition boxes.
- (4) Coil must be in engine compartment.
- (5) HEI distributor coils must mount in cap.
- (6) Distributor may have aftermarket high performance modules with single magnetic pick up mounted inside stock OEM distributor housing.

### (b) Alternator: Any stock type alternator may be used,

### (c) Starter:

- (1) Cars must have a stock O.E.M. type or aftermarket working starter mounted in the stock location.

### (d) Battery:

- (1) Battery to be securely mounted behind driver's seat and in front of rear-firewall and contained in a sealed steel battery box.

### (e) Electrical Switches and Locations:

- (1) 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.
- (2) 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 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

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championship points.

(g) **Radios:**

- (1) Two-way radio communication between driver and crew will be mandatory.
- (2) The radio vendor must clear your radio frequency.
- (3) 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.
- (4) During practice, each competitor must have a spotter on the designated location.

### 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) Only water may be used in the engine cooling system.

(b) **Water Pump:** Aluminum water pump permitted. No electric water pump.

(c) **Fan:**

- (1) Cars must have a working fan.
- (2) Electric fans are permitted

(d) **Fan Shroud and Ducts:**

- (1) Fans must have a fan safety shroud.
- (2) Shroud must cover to back of fan blades, on top and sides.

(e) **Radiator:**

- (1) Radiator must be in stock location and angle.
- (2) Any approved pressure cap may be used.
- (3) Aluminum radiators allowed.
- (4) If an air deflector scoop is attached in front of the radiator, it cannot be any wider than the radiator, can extend no farther forward than the rear most edge of the front bumper, and be no lower than 4-inch from the ground.
- (5) Front hoop may be mounted to protect radiator, but cannot extend any further than rear edge of front bumper.

(f) **Overflow:**

- (1) An approved overflow system is mandatory.
- (2) Over flow reservoir must have sealed inlets and outlets. The reservoir outlet must exit on 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:** Any single production type filter. It may be remotely mounted, but must be located in the engine compartment.

(c) **Oiling System:**

- (1) Dry sump oiling systems are not allowed.
- (2) One oil supply line to each engine valve cover permitted.

### 9. ENGINE EXHAUST SYSTEM

(a) **Exhaust Manifold:**

- (1) Any OEM cast iron exhaust manifold. No corvette ram horns.
- (2) Manifold must bolt to head, no spacers.
- (3) The following spec headers approved:
  - (A) Hedman Heddors P/N 68600, with reducer P/N 21103.
- (4) Spec headers must remain as originally produced by the manufacture. Modifications of any type

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are not permitted. Headers must not be wrapped.

(b) **Exhaust Pipes:**

- (1) Maximum exhaust pipe diameter 2-½ inch O.D. and 3-½ inch O.D. after muffler or 2 into 1 collector.
- (2) Exhaust must extend past driver and turn down.
- (3) Tri-Y header, connectors, or pipes not permitted.

(c) **Heat Shields:** Not permitted.

(d) **Mufflers:**

- (1) Mufflers must be capable of maintaining a maximum of 90 DECIBALS AT 100 FEET.
- (2) Mufflers must be in place at all times. Cars losing mufflers or exhaust pipes during an event will not be allowed to continue.
- (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) All exhaust systems and installations must be approved by Toyota Speedway at Irwindale Tech Officials.

### 10. DRIVE TRAIN

(a) **Clutch:** Stock steel OEM type single disc clutch.

(b) **Flywheel:**

- (1) Stock OEM type steel flywheel.
- (2) No aluminum flywheels.
- (3) Flywheel must not weight less than 15 pounds.

(c) **Bell Housing:**

- (1) Approved scatter-shield mandatory.
- (2) No aluminum bell housings.

(d) **Transmission:**

- (1) Transmissions must be OEM stock type.
- (2) Automatic or manual transmissions allowed.
- (3) Gears may not be removed from transmission.
- (4) Gears may not be cut, altered, or lightened.
- (5) No cutting or altering transmission cases.
- (6) All forward & reverse gears must engage and be in working condition.
- (7) Cars must have reverse gear.
- (8) Transmission cooler permitted, but must be in engine compartment, behind the radiator.
- (9) Torque converter must operate like original design at all times.
- (10) No titanium parts.

(e) **Drive Shaft:**

- (1) Drive shaft must be magnetic steel minimum diameter 2-¾ inch.
- (2) Drive shaft must be painted white.
- (3) All drive shafts must have car number painted on tubing.
- (4) Drive shaft must have two 360-degree drive shaft guards (hoops) located as close to the universal joints as possible. Drive shaft guards (hoops) must be a minimum of 1/8 inch x 1-½ inch solid steel strap and securely bolted.

(f) **Rear Axle:**

- (1) Steel mini spool only.
- (2) Stock type magnetic steel yoke only.
- (3) Floater type rear ends recommended.
- (4) No gun drilled or crowned axles.
- (5) Aluminum drive plates allowed.
- (6) No aluminum or titanium parts.

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- (7) No Detroit Lockers or any other type of limited slip or locking carriers.
- (g) **Wheels and Lug Bolts:**
- (1) Seven (7) inch maximum rim width.
  - (2) Wheel offset **may vary. must be equal on all four (4) wheels.**
  - (3) No bleeders allowed, and only one valve stem per wheel permitted.
  - (4) Steel wheels only. No other wheel material allowed.
  - (5) Wheels must weigh a minimum of eighteen (18) pounds.
  - (6) Solid heavy-duty 5/8 inch steel studs and nuts must be used on all four wheels.
  - (7) All tire/wheel balance weights must be on the inside of wheel.
  - (8) Wheel spacers allowed, ½ inch maximum and (1) per wheel only permitted.
- (h) **Tires:**
- (1) Tires must be purchased from Toyota Speedway at Irwindale.
  - (2) Approved tires will be announced prior to the start of the season.
  - (3) Only Toyota Speedway at Irwindale approved tires, purchased at Toyota Speedway at Irwindale, is permitted.
  - (4) Track tires only, and may be interchanged side to side.
  - (5) There will be no shaving or soaking of tires allowed. No chemical alteration of any kind to tires.
  - (6) Tire soaking is not allowed at anytime, penalty for this will be one-year suspension.
- (i) **Tire Usage Rules:**
- (1) Only Toyota Speedway at Irwindale approved tires, purchased at Toyota Speedway at Irwindale, are permitted. ~~Tires will be branded and limited tire purchases will be enforced.~~ Tires that have been altered by unauthorized treatment will not be permitted.
  - (2) ~~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:~~
  - (3) ~~Opening Day of the season, 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, each driver will be allowed to buy four (4) tires.~~
  - (4) ~~These first three events will be the only opportunity to purchase more than one (1) tire at a time until the final points race of the season unless otherwise notified by Toyota Speedway at Irwindale Tech Officials.~~
  - (5) ~~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).~~
  - (6) ~~In each day that Toyota Speedway at Irwindale holds a NASCAR Super Stock racing event, each competitor who has a car eligible and ready for competition will be allowed to purchase one (1) tire. 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 one (1) new tire per race after Opening Day. Each tire will be branded, logged, and recorded by Toyota Speedway at Irwindale Tech Officials.~~
  - (7) ~~If a competitor is not able to purchase their allotment of tire(s) for that event but did attempt to qualify, they may put that events tire(s) into the "bank". Having tires in the "bank" does not give any competitor more tires than anyone else it just allows every competitor an opportunity to receive their allotted tires.~~
  - (8) ~~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.~~
  - (9) ~~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.~~
  - (10) ~~In the event that a competitor flattens or damages more than one tire in an accident etc., only~~

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~~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.~~

- (11) ~~(2)~~ Toyota Speedway at Irwindale reserves the right to impound tires for storage between events.
- (12) ~~(3)~~ Tires ~~will~~ **may** 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.
- (13) ~~(4)~~ Special events, if any, may not be subject to these rules.

### 11. FRAME REQUIREMENTS

- (a) No modifications, customizing, or alterations of any kind. No cutting or channeling of frame.
- (b) Frame must maintain all mounts; pick up points, brackets, hangers, and dimension of original chassis.
- (c) No bars, supports or “X-ing” of chassis under the floorboard.
- (d) Unibody cars may tie the front and rear sub frames together by using 2 inch x 2 inch square tubing.
- (e) Chassis must be stock.
- (f) Same front and rear clips as produced by factory.

### 12. SUSPENSION

#### (a) General Suspension:

- (1) A Toyota Speedway at Irwindale Tech Official must approve any modifying of suspension pieces or mounting points.
- (2) All suspension parts must remain stock.
- (3) Interchanging of suspension part, make-to-make, permitted (i.e. Chevrolet to Chevrolet or Ford to Ford).
- (4) Heim joints not permitted.

#### (b) Front Suspensions:

- (1) No aluminum parts on front suspension.
- (2) No mono ball, heim joints, or spherical joints permitted.

#### (c) Front Coil Springs:

- (1) Any stock diameter springs may be used. Springs must remain in stock location.
- (2) Adjustable spring spacers permitted, but cannot be externally adjustable.

#### (d) Rear Suspensions:

- (1) Stock trailing arms. No boxing of rear trailing arms.
- (2) Stock chassis mounts for trailing arms.
- (3) Front leaf-spring mount or hanger cannot be adjustable or moved.
- (4) Adjustable steel shackles permitted on rear of spring.
- (5) No aluminum parts on rear suspension, except as permitted for lowering block.
- (6) Only one (1) adjustable metal or aluminum lowering block on one side of the rear axle permitted on leaf spring suspension cars.

#### (e) Rear Coil Springs: Section held for possible future use.

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

- (1) Heim joints not permitted.

#### (g) Track bar: Section held for possible future use.

#### (h) Shock Absorbers:

- (1) Stock mount type shocks only.
- (2) QA1 Steel 30 Series shock permitted. ***Twenty-five pound (25 lb) weight penalty mandatory for any car with QA1 Steel 30 Series shock(s), effective 2010 season. QA1 Steel 30 Series shock not permitted, effective 2011 season.***
- (3) When shocks are compressed, they must remain compressed.

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- (4) No nitrogen charged shocks.
- (5) **OEM stock type shocks only.**
- (6) **Serviceable or adjustable type shocks not permitted.**
- (i) **A-Frames:**
  - (1) Stock OEM upper and lower A-arms.
  - (2) Stock OEM type upper A-arms must be equal length.
  - (3) Both lower A-arms must be equal length.
  - (4) Any magnetic steel upper A-arm cross shaft may be used.
  - (5) Any upper or lower A-arm bushing may be used.
  - (6) Stock type ball joints only.
    - (A) Approved stock type ball joints:
      - (i) Upper, Howe part number 22300.
      - (ii) Upper, Howe part number 22320.
      - (iii) Lower, Howe part number 22412.
  - (7) Tubular magnetic steel upper A-arms permitted.
- (j) **Spindles, Wheel Bearings and Hubs:**
  - (1) Stock OEM cast magnetic steel spindle only
  - (2) Must use magnetic steel rear hubs.
- (k) **Tread Width Requirements:**
  - (1) Maximum tread width is 76 inches outside to outside at rim bead surface at spindle height.
  - (2) Tire tread may not extend past widest part of body at wheel openings.
- (l) **Wheelbase Requirements:**
  - (1) Wheelbase minimum is 108 inches on one side, and plus or minus ½ inch on opposite side
  - (2) Wheelbase must be within ½ inch from side to side.
  - (3) Same wheelbase as produced by factory.
- (m) **Body Height Requirements:** Four (4) inch minimum body height, without driver.
- (n) **Ground Clearance Requirements:**
  - (1) Four (4) inch minimum frame height, rocker skirt and body height, without driver.
  - (2) Minimum ground clearance for any other part of the car 3-½ inches.
- (o) **Car Height Adjusting Devices:**
  - (1) Weight jacking bolts or weight jacks not permitted.
  - (2) Pneumatic, hydraulic or electric weight shifting devices not permitted.

### 13. STEERING

- (a) Stock type OEM steering box. Stock steering box mounts only
- (b) Stock OEM style tie rods and tie rod ends only.
- (c) No cutting or welding on steering components.
- (d) No mono ball, heim joints, or spherical joints permitted.
- (e) Quick release steering wheel mandatory. Hub must be made of metal.
- (f) Center top of steering wheel must be padded with 2-inch of resilient material.
- (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 wall tubing.

### 14. BRAKES AND COOLING COMPONENTS

- (a) **Brake Components:**
  - (1) Brakes must be in a good operating condition on all four (4) wheels at all times.
  - (2) No drilling or lightening of rotors.
  - (3) Stock OEM single piston cast brake calipers only.
  - (4) Adjustable proportioning valves permitted. Proportioning valves may not be located in the

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driver's compartment.

- (5) Dual master cylinders are permitted.
  - (6) Aftermarket master and slave cylinder allowed.
  - (7) Brake pedal mount assemble must be stock hanging type. Floor mount type brake pedal assemble not permitted.
  - (8) Approved aftermarket brake pedal mount assemble option may be used.
    - (A) Wilwood pedal assemble P/N 3401285 and P/N 3401287 allowed.
  - (9) **Front:**
    - (A) Minimum front brake rotor dimension: 0.750 x 10.500 inch.
    - (B) Stock steel one-piece front hub and rotor only.
  - (10) **Rear:**
    - (A) Minimum rear brake rotor dimension: 0.700 x 10.000 inch.
    - (B) Rear disc brakes permitted but must use OEM calipers.
    - (C) Aftermarket rear rotors permitted. Toyota Speedway at Irwindale Tech Officials must approve all rotors.
- (b) **Brake Cooling:**
- (1) No brake re-circulators.
  - (2) Front brake cooling ducts permitted, one per each front brake only allowed, subject to tech approval.

### 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 must be automotive gasoline only.
- (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) Fuel shall comply with ASTM D4814 entitled, "Standard Specification for Auto 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.
- (f) Cooling of fuel or fuel pump is not allowed.
- (g) Nitrous oxide prohibited.

### 16. FUEL SYSTEM

- (a) **Fuel Cell:**
  - (1) All cars must be equipped with an approved fuel cell with a maximum capacity of 22 gallons, and a minimum of 12 gallons.
  - (2) A fuel cell check valve is mandatory.
  - (3) Bladder type fuel cell recommended.
- (b) **Fuel Cell Container:**
  - (1) Fuel cells must be mounted in a 22-gauge steel container (box).
- (c) **Fuel Cell and Fuel Container Installation:**
  - (1) Fuel cell must be a minimum of 10 inches from 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) Fuel cell must be securely installed in rear trunk compartment, centered between the frame rails, with two 1 inch x 1 inch x .065 inch steel tubing both cross and lengthwise.
  - (4) Fuel cell should be mounted as far forward as possible.
  - (5) 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

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cell.

(6) No moving of the fuel cell to gain an advantage with weight distribution.

**(d) Fuel Filler and Vent Requirements:**

- (1) All fuel cells must be vented and must have a vent check valve.
- (2) Fuel filler must be located within trunk area.
- (3) Fuel cell vent hose must extend to outside at left rear taillight area.

**(e) Fuel Lines:**

- (1) Only one fuel line from fuel cell to fuel pump is permitted. Maximum diameter 5/8 inch. If line runs through driver's compartment, it must be enclosed in a steel tube.

**(f) Fuel Pump:**

- (1) Only OEM type mechanically driven fuel pump in stock location allowed.

**(g) Fuel Filter:**

- (1) Single pass filters only.
- (2) Maximum one inline fuel filter 2-1/2 inch x 7 inch.
- (3) Glass fuel filters not permitted.

**(h) Fuel Filler Cans:**

- (1) It is required that all fuel be stored in a competitors pit be 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.

**(b) Protective Clothing:**

- (1) It is recommended that at all times, drivers wear 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.
- (3) It is recommended that during an event, practice, or qualifying a driver wears the following: Fire resistant shoes, socks, underwear and hood.

**(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) Snell SA2000 or SA2005 helmet required.
- (2) Full face helmets with Lexan face shield recommended.
- (3) Nomex helmet skirt, and Nomex covered chinstrap highly recommended.
- (4) A HANS or Hutchens type head and neck restraint device is recommended.

**(e) Seat Belts:**

- (1) It is highly recommended that the driver carefully study the manufacturer's seat belt installation guidelines.
- (2) All seat belts must be a complete matching set from the manufacture. No mixing of manufactures.
- (3) Belts must be replaced every 2 years and all belts must be dated by manufacturer or dealer.

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- (4) Mounting and installation: refer to the current NASCAR Weekly Racing Series Rule Book.
- (f) **Seats:**
- (1) A professional seat is required. Approved seat must be made of aluminum and manufactured specifically for auto racing.
  - (2) Seat must be mounted at a minimum of six (6) places, 2 at front of seat, 2 at hip area, and 2 at top of seat with 3/8-inch grade 5 bolts and lock nuts.
  - (3) No fiberglass, plastic, or homemade seats are allowed.
  - (4) Seat must be mounted to roll cage with a minimum of 1-inch x .065-inch seat tube.
  - (5) Seat belt tabs minimum 3/16-inch thick must be welded to cage or seat bar.
  - (6) No portion of the drivers seat shall be within 30-inch, measured at the bottom of seat to the centerline of the rear end.
  - (7) Seats must have a padded headrest. Headrest must be supported by roll cage.
  - (8) Recommended built-in rib protection and leg extensions.
- (g) **Roll Bars:**
- (1) A complete six-point roll cage around and over driver with a minimum of four door bars extending into driver side and passenger side door mandatory.
  - (2) Roll cage must conform to body. No offset cages.
  - (3) Roll cage must be constructed in a manner similar to the drawing in the back of the NASCAR Weekly Racing Series Rule Book.
  - (4) Main cage must be a minimum of 1-<sup>3</sup>/<sub>4</sub> inch x .090-inch wall thickness, must be welded, no pipe fittings. All welds must be gusseted.
  - (5) A bar may be added between frame horns only and a vertical bar may connect frame horn and upper hoop.
  - (6) Rear down bars must extend to rear of frame, beyond fuel cell. Bars extending down to frame must support these bars.
  - (7) All roll bars within drivers reach must be padded.
  - (8) No roll bars or stiffening tubes below frame.
  - (9) Roll cage supports may be added below body of unibody cars for roll cage installation. These bars may in no way tie sub frames together.
  - (10) Driver's side door bars must be plated with 1/8-inch steel plate. Minimum size for this plate will be 24 inch x 32 inch or smaller pieces may be welded in the gaps.

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 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' goal of a full starting field of various car makes in each race

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that are equally matched as possible is certainly in the overall best interest of the sport.