

OFFICIAL 2009 - 2011 SPECIFICATIONS FOR NASCAR MINI 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 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) Any 1970 or newer American and Foreign sedans whose components meets U.S.A. specifications only.
- (b) All parts of the car must meet the specifications listed in the factory shop manual for the model and year of car unless the following rules specify an allowable modification.
- (c) Any 2-wheel drive, 3 or 4 cylinder or 2-rotor engine.
- (d) No convertibles, jeeps, pick-ups or high performance models.
- (e) Front or rear wheel drive automobiles.
- (f) No rear engine or mid-engine model cars.

2. GENERAL CAR AND BODY REQUIREMENTS

(a) General Car:

- (1) All car bodies will maintain stock appearance as O.E.M.
- (2) All bodies must be complete and have all parts securely fastened.
- (3) Approved fiberglass parts will be allowed but they must retain original dimensions.
- (4) Headlights, taillights and other exterior lights must be removed.
- (5) Headlight and taillight area may be covered neatly with sheet metal.
- (6) No Carbon Fiber, Kevlar or Titanium parts allowed.

(b) Floorboards:

- (1) All holes in floor must be sealed.

(c) Interiors:

- (1) All interior upholstery must be removed.
- (2) No sharp edges.

(d) Overall Car Weight:

- (1) All cars must maintain a minimum weight requirement of 2,200 pounds, including driver before the race.
- (2) 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) All added weight located inside the driver's compartment must be properly secured with a 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.
- (5) Weight may not be added ahead of the front spindles, or behind the rear axle.
- (6) Weight may not be added to the outside of the frame rails.
- (7) 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.
- (8) Devices for shifting weight not permitted at any time.

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- (9) 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:

- (1) Front air dams and side skirts will be allowed, but must maintain a minimum of four (4) inches of ground clearance.
- (2) Nose can be original, fabricated steel, or fiberglass. Every nose must retain original dimensions and appear stock.

(b) Rear Spoiler:

- (1) Rear spoilers are allowed with a maximum dimension of 4-inch by 50-inch.

(c) Windshields:

- (1) All windshields must have a minimum of two evenly spaced 1/8-inch x 1-inch metal straps mounted securely. The two straps must be located on the inside mounted to the dash and roof panel to the most appropriate attachment point to secure windshield in place with a minimum 1/4-inch bolts with lock nuts. The outside of windshield must be supported with rivets at every 3 inches, and may also have window straps. These supports must not block the vision of the driver.
- (2) The windshield may be replaced by 1/8 inch Lexan polycarbonate. Polycarbonate windshields must conform to the original shape.
- (3) No sheet metal screws for mounting permitted.
- (4) No screen windshields allowed.

(d) Rear Window:

- (1) Rear window glass must be removed.

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

- (1) All glass side windows must be removed.
- (2) Window net required on the driver's door.
 - (A) Net must be fastened at the bottom with quick release at the top. No mesh nets. Nets must be 1-inch webbing.
 - (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) Rear view mirror required.
- (2) Mirrors must not extend outside the normal bodylines.
- (3) Small left spot mirror permitted.

(g) Dash Panel:

- (1) Dashboards may be removed. If a fabricated dash is installed it must extend straight across from side to side. No, offset dashes.

(h) Firewalls:

- (1) Front and rear firewalls are required. Front and rear firewalls must be sealed.
- (2) Stock front and rear firewalls must be retained. Rear firewall must be 22-gauge magnetic sheet metal. Aluminum firewalls not permitted.
- (3) Stock open interiors are required.

(i) Doors:

- (1) Doors can be original, fabricated steel, or fiberglass but must retain original dimensions.

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- (j) **Fenders:**
 - (1) Inner fender wells may be trimmed or removed.
 - (2) Fenders can be original, fabricated steel, or fiberglass but must retain original dimensions.
 - (3) All wheel wells must be rolled and free of sharp edges and show good workmanship.
- (k) **Quarter and Rocker Panels:**
 - (1) Quarter panels can be original, fabricated steel, or fiberglass but must retain original dimensions.
 - (2) Rocker panel skirts must extend straight down, no flaring.
- (l) **Grilles:**
 - (1) Grilles may be removed or replaced with screen.
- (m) **Hood:**
 - (1) Hood inner metal may be removed.
 - (2) Hoods must be fastened with clip type hood pins.
 - (3) Hoods must cover the air cleaner.
 - (4) Hoods with hinges will have a minimum of 3 hood pins across front of hood.
 - (5) Lift off hoods must have an additional 2 pins holding the rear of the hood.
 - (6) Fiberglass one-piece front ends must be Toyota Speedway at Irwindale approved and have minimum of three pins across the top of the front, and two at the top of back at rear of hood, and two pins securing the rear on the sides.
 - (7) Add-on scoops or holes in the hood are not allowed.
- (n) **Roof:** Original stock roof and contours mandatory.
- (o) **Rear Deck/Trunk Lids:**
 - (1) Trunk lids must be fastened with clip type hood pins.
 - (2) Trunk lid inner metal may be removed.
 - (3) Trunk lids with hinges must have two clip type hood pins at the rear to secure it.
 - (4) Lift off trunk lids must have 4 clip type hood pins securing it at the corners.
- (p) **Bumpers:**
 - (1) Front and rear bumpers mandatory.
 - (2) All bumpers must be stock appearing. Any stock bumper may be used. Front and rear bumper straps required which must be the size of the bumper width.
- (q) **Identification and Marking:**
 - (1) Tech Officials have the right to temporarily change race car numbers to avoid duplication. NASCAR reserves the right to assign or restrict the display of decals, identification, and advertising on racecars.
 - (2) All cars must have the car number at least 18 inches high by 4 inches wide in the center of the door on both sides.
 - (3) The car number must be 24 inches high on the roof of the car and be readable from the passenger's side.
 - (4) Car numbers must be of a contrasting color to that of the car body.
 - (5) Gold or Silver foil numbers are not permitted.
 - (6) 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) The engine must be of stock type for make and model of car.
- (b) Any car with an engine, which is not from the same model of car body, will carry a 50-pound weight penalty with the weight located on the right frame, forward of the bell housing and behind the right upper ball joint. The weight shall be white color with a yellow strip.
- (c) No truck engines.
- (d) Fuel injection, Turbo, and Superchargers are not allowed.
- (e) 12 A rotary engine is approved.
- (f) No titanium engine parts allowed.

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- (g) Replacement parts must meet stock factory OEM specifications in every detail and remain unaltered.
- (h) All engines must originate from stock production castings and forgings and remain completely OEM except as specified in these rules.

5. DETAILED ENGINE REQUIREMENTS

- (a) **Engine Location:** Engines must remain in stock location. Adjustable motor mounts not permitted.
- (b) **Engine Ground Clearance:** 3-½ inches minimum.
- (c) **Engine Mounts:** Stock non-adjustable and unaltered engine mounts required.
- (d) **Engine Displacement:** The absolute maximum displacement will be 2550 cc, including wear.
- (e) **Engine Compression Ratio:**
 - (1) The term "10.00-1 compression ratio engine" shall mean any engine having a compression ratio of less than 10.00 to 1. The maximum compression ratio is 10.00 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) Stock cast iron block only.
- (g) **Internal Changes:**
 - (1) Standard and customary machining of internal parts for rebuilding is allowed.
 - (2) Rotating internal engine components may be balanced and deburred minimally.
- (h) **Piston/Rods:**
 - (1) Only OEM rods. No aftermarket rods.
 - (2) Rods may have the beam deburred.
 - (3) Aftermarket rod bolts allowed.
 - (4) Stock OEM pistons and hypereutectic OEM type replacement pistons allowed.
 - (5) Forged pistons not permitted.
 - (6) Teflon coated pistons not permitted.
- (i) **Oil Pans and Coolers:**
 - (1) Aftermarket oil pans are allowed.
- (j) **Cylinder Heads:**
 - (1) Stock cast iron cylinder head only.
 - (2) Aluminum permitted if OEM for make and model. Must be approved by Toyota Speedway at Irwindale.
 - (3) No porting or polishing of cylinder head allowed.
 - (4) Valves and valve seats must be stock diameter.
 - (5) Aftermarket valve covers are allowed.
- (k) **Crankshaft and Harmonic Balancer:**
 - (1) Crankshafts must be OEM stock specification with no changes allowed except balancing.
 - (2) No knife edging of crank permitted.
- (l) **Camshaft, Valve Lifters, and Rocker Arms:**
 - (1) No roller rockers on the valve side or cam side permitted.
 - (2) Maximum cam lift measured at the valve is .480 inch.
- (m) **Intake Manifold:**
 - (1) Any OEM intake manifold is allowed. The mounting bolt holes for the carburetor or adapter may be modified.
- (n) **Carburetor:**
 - (1) The Toyota Speedway at Irwindale approved carburetors and carburetor rework guidelines are listed below:
 - (2) Any carburetor modification not specifically covered in the rules will NOT be permitted.
 - (3) Toyota Speedway at Irwindale has approved the following carburetor:

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- (A) Holley List 7448, 350 CFM, carburetor.
- (B) All cars regardless of make or model will compete with carburetor specified.
- (4) **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.
- (5) **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.
- (6) **Choke Horn:** The choke horn must be run as produced by Holley and not removed.
- (7) **Boosters:** Boosters may not be changed. Size or shape must not be altered. Height must remain standard.
- (8) **Venturi:** Venturi area must not be altered in any manner. Casting ring must not be removed.
- (9) **Base Plate:** Base plate must not be altered in shape, size, or finish.
- (10) **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.
- (11) **Throttle Shafts:** Shafts must remain standard and must not be thinned, cut or altered.
- (12) **Metering Blocks:**
 - (A) The only metering blocks allowed will be those that were original equipped from Holley or manufactured by Holley as an OEM replacement for the carburetor.
 - (B) Creating new (non-OEM) holes in the metering block is not permitted.
 - (C) Metering block primary jet sizes may be altered by replacing them with Holley OEM jets.
 - (D) Existing metering block holes may be altered in size.
- (13) **Overall Modifications:**
 - (A) Any modification not specifically covered, will not be permitted.
 - (B) 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.
 - (C) All air entering the engine's combustion chambers must pass through the venturi.
 - (D) Two (2) throttle return springs mandatory.
- (o) **Air Intake: (air filter):**
 - (1) Round dry type paper filter only.
 - (2) No tubes, funnels, or any device that will control the airflow allowed in air cleaner.
 - (3) Controlled vacuum leaks are not allowed.
 - (4) Air intake ducts that direct air from any high-pressure area to the air cleaner are not allowed.

6. ENGINE/CAR ELECTRICAL SYSTEM

- (a) **Ignition System:**
 - (1) Any stock ignition system may be used.
 - (2) OEM specification replacement parts from any source will be allowed.
 - (3) High-performance aftermarket ignition will not be allowed.
 - (4) Any spark plug and any spark plug wire may be used.
- (b) **Alternator:** Alternators and/or generators are optional.
- (c) **Starter:** All cars must have a functioning starter. No mini starters allowed.
- (d) **Battery:**
 - (1) Batteries must be securely mounted and may be located anywhere within the body.
 - (2) Batteries mounted other than in the engine compartment must be in an approved leak proof battery box and properly secured.
- (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.

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- (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 championship points.
- (g) **Radios:**
 - (1) Any car with a radio must have the radio vendor clear your radio frequency.
 - (2) Competitors may have a spotter in the designated area and may have the ability of two-way communication with a spotter.
 - (3) Mini Stock drivers must have a radio that monitors race control.

7. ENGINE COOLING SYSTEM

- (a) **General Cooling System:**
 - (1) Toyota Speedway at Irwindale Tech Officials must approve any and all modification to the cooling system.
 - (2) No icing, Freon type chemical, liquid spraying systems, or refrigerants may be used in, near, or around the engine compartment.
 - (3) Water only may be used in the engine cooling system.
- (b) **Water Pump:** Stock type water pumps only. Impellers may be altered.
- (c) **Fan:**
 - (1) All cars must have a functioning fan.
 - (2) Electrical fans will be allowed.
- (d) **Fan Shroud and Ducts:**
 - (1) A top fan guard must be used for safety. It must cover to the back of the fan blades on top and sides.
 - (2) Extended fan shrouds or cooling ducts will not be allowed past the rear edge of the radiator.
- (e) **Radiator:**
 - (1) A stock type radiator of any source or capacity may be used provided that it fits in approximately the stock location. A radiator protection screen may be used.
 - (2) Aluminum radiators are allowed, mounted in the stock location.
 - (3) Any approved pressure cap may be used.
- (f) **Overflow:**
 - (1) Approved radiator over-flow reservoir required on all cars, minimum ½ gallon. The reservoir (catch-can) must have sealed inlets and outlets.
 - (2) The reservoir outlet hose must exit 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:** Any single production type filter, located in the engine compartment.
- (c) **Oiling System:** Dry sump oiling systems are not allowed.

9. ENGINE EXHAUST SYSTEM

- (a) **Exhaust Manifold:**
 - (1) OEM stock cast iron manifold for car permitted.
 - (2) Steel headers permitted. Aluminum or stainless steel headers not permitted.

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(b) **Exhaust Pipes:**

- (1) Maximum exhaust pipe diameter allowed is 3 inches.
- (2) Exhaust must exit outside of the car body, behind the driver and in front of the rear tires.
- (3) No exhaust parts may protrude outside the bodyline.

(c) **Heat Shields:** 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) All exhaust systems and installations must be approved by Toyota Speedway at Irwindale Tech Officials.
- (4) Mufflers may be installed with the floorboard raised on the right side not higher than the driveline tunnel. Subject to Tech approval.

10. DRIVE TRAIN

(a) **Clutch:**

- (1) Lightweight clutches or modified torque converters will not be allowed.
- (2) OEM specification stock clutch for the make, model, of car must be used.

(b) **Flywheel:**

- (1) Only OEM stock or aftermarket steel billet flywheels may be used.
- (2) Aftermarket flywheels must retain stock weight and dimensions.
- (3) Lightened or aluminum flywheels are not allowed.

(c) **Bell Housing:**

- (1) A magnetic steel scatter shield or approved transmission blanket is mandatory for manual shift transmission bell housings and automatic transmissions.
- (2) Scatter-shield must mount to engine, and cover the clutch area completely and be 360-degrees in circumference. Scatter-shields must be ¼-inch minimum thickness, covering flywheel and extending to the rear over the clutch area for at least 6-inch.

(d) **Transmission:**

- (1) Any standard production transmission for the make of car may be used. Transmissions must retain all original components.
 - (A) Removing of gears is not allowed.
 - (B) Transmissions must have reverse gear.
 - (C) All forward and reverse gears must engage.
 - (D) Gears may not be cut, altered, or lightened.
 - (E) No cutting or altering transmission cases.
- (2) Aftermarket racing transmissions are not allowed.
- (3) A transmission cooler may be installed in the engine compartment.
- (4) OEM specification torque converter for the make, model, of car must be used.

(e) **Drive Shaft:**

- (1) Minimum diameter is 2-3/4 inches, and minimum thickness is .060 inch tubing.
- (2) Two 360-degree steel driveline retaining straps at least 1/8-inch x 1-1/2 inch, mounted as close to universal joints as possible, are required.
- (3) Drive shafts must be steel and painted white and have the car number painted on it.

(f) **Rear Axle:**

- (1) Any standard production differential for the make of car may be used. Any gear ratio may be used.
- (2) Mini spools and Posi-traction locked differentials will be allowed.
- (3) Quick-change rear ends are not allowed.
- (4) Cambered rear axle housings not permitted.

(g) **Wheels and Lug Bolts:**

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- (1) Wheels must be made of steel. Maximum wheel dimension 13 inch x 7 inch.
- (2) A maximum of one valve stem per wheel. No bleeders allowed.
- (3) Double center reinforced wheels or wheels approved for racing are required.
- (4) Solid heavy-duty 1/2-inch steel studs and nuts must be used on all four wheels.
- (5) All tire/wheel balance weights must be on the inside of wheel.
- (6) Wheel studs must protrude past lug nuts.
- (7) Pressed-in type wheel studs only.
- (8) Wheel offset must be equal on all four (4) wheels.
- (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 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, are permitted. Tires will be branded and limited tire purchases will be enforced.
- (4) Tires that have been altered by unauthorized treatment will not be permitted. Rubber softening substances are not allowed at any time. Drivers found violating unauthorized tire alterations subject to one (1) 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:
- (2) 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 of the season, each driver will be allowed to buy four (4) tires. 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.
- (3) 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 session will permit old or test tires).
- (4) 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.
- (5) Each tire will be branded, logged, and recorded by Toyota Speedway at Irwindale Tech Officials.
- (6) 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.
- (7) 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 four (4) new tires.
- (8) 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.
- (9) Toyota Speedway at Irwindale reserves the right to impound tires for storage between events.
- (10) 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.
- (11) Special events, if any, may not be subject to these rules.
- (12) 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 there allotted tires.

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11. FRAME REQUIREMENTS

- (a) No modifications of frames will be allowed.
- (b) Frames must remain stock for make, model, and year of car.
- (c) Tow hooks must be constructed in front and rear of the car for tow truck hook-up. Location of tow hooks must be clearly marked.

12. SUSPENSION

(a) General Suspension:

- (1) No alteration of any type will be allowed to any suspension components except for the modifications listed below.
- (2) Damaged suspension parts must be repaired as close as possible to original specifications.

(b) Front Suspensions:

- (1) Camber may be changed by any conventional method.

(c) Front Coil Springs:

- (1) Coil springs must be in stock location.
- (2) Aftermarket, adjustable coil-over suspensions are not allowed.
- (3) Any MacPherson strut and lower control arm from the same make of car may be used.

(d) Rear Suspensions:

- (1) Torsion bars and leaf springs may be altered and from any source, however the original mounting type and location must be used.
- (2) Non-adjustable lowering blocks are allowed.
- (3) The rear springs must mount on the rear axle in equal distance left to right.
- (4) Independent rear suspension cars will be allowed a maximum of 2 degrees of camber and maximum ¼-inch of toe in/out on rear suspension.

(e) Rear Coil Springs:

- (1) Coil springs must be in stock location.
- (2) Aftermarket, adjustable coil-over suspensions are not allowed.

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

- (1) Any one-piece sway bar may be used with either rubber or urethane-mounting bushing but solid bushings are not allowed.
- (2) Sway bar outer mounts may be adjustable. Sway bar inner mounts must be OEM stock mounts and stock location.

(g) Track Bar: Reserved.

(h) Shock Absorbers:

- (1) Any shock absorber or strut cartridge that fits in the stock mounts may be used.
- (2) Any brand of shock absorber is allowed.
- (3) No HEIM joint or tie rod end shocks unless OEM.

(i) A-Frames:

- (1) A-frames may not be modified, but any A-frame from the same make of car may be used.

(j) Spindles, Wheel Bearings and Hubs:

- (1) Spindles and hubs may not be modified.

(k) Tread Width Requirements: Reserved.

(l) Wheelbase Requirements:

- (1) Minimum wheelbase 90 inches, maximum 102 inches.

(m) Body Height Requirements:

- (1) Bodies may not be lowered on chassis or frames.

(n) Ground Clearance Requirements:

- (1) A minimum of four (4) inches of ground clearance must exist under any part of frame or body.
- (2) Rocker panels must maintain a minimum of four (4) inches of ground clearance.
- (3) Minimum ground clearance for any other part of the car 3-½ inches.

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- (4) Metal parts lower than the wheel rims will not be allowed.
- (o) **Car Height Adjusting Devices:**
 - (1) One threaded weight jacking bolt may be used for each spring.
 - (A) Coil springs must have the jacking bolt aligned with the coil.
 - (B) Each leaf spring may have only one adjusting device, either one weight jacking bolt or one adjustable leaf spring shackle.
 - (2) Pneumatic, hydraulic or electric weight shifting devices not permitted.

13. STEERING

- (a) Quick release steering wheel mandatory. Must have a metal hub.
- (b) Steering wheel pad mandatory, 2-inch thick minimum.
- (c) All steering components must be stock for make of car except that the steering column must be a collapsible type.
- (d) All steering columns are required to have a collapsible section or have two (2) unsupported universal joints, subject to Tech approval. Stock column couplers not accepted as universal joint.
- (e) Recommended $\frac{3}{4}$ 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) Brakes must remain stock for make of car. Any pads or shoes may be used.
 - (3) An adjustable proportioning brake valve may be used however it cannot be mounted in driver's compartment.
 - (4) Brake rotors thickness may not be less than the manufactures minimum thickness.
- (b) **Brake Cooling:** Air cooling ducts not permitted.

15. FUEL

- (a) All cars must compete with fuel dispensed from the track gas station only. 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) Fuel must be automotive gasoline only.
- (e) No cooling or icing of any fuel or fuel component.
- (f) 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.
- (g) Nitrous oxide prohibited.

16. FUEL SYSTEM

- (a) **Fuel Cell:**
 - (1) A fuel cell is mandatory.
 - (2) A fuel cell check valve is mandatory.
- (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) The cell must have at least 8-inches of ground clearance.
 - (2) Fuel cell must be securely mounted in trunk area with two (2) straps lengthwise and two (2) straps crosswise that completely encircle the fuel cell.
 - (3) The material for this strap is 1-inch x 1-inch .065-inch square tube.

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- (4) Fuel cell must be securely mounted in trunk area with at least eight (8) bolts and mounted between frame rails as close to center as possible.
- (5) A fuel cell protector bar made from a minimum of 1-½-inch x .090 steel tubing is required. The protector bar must be located to the rear of the cell and be greater in length than the width of the fuel cell, and must extend lower than the fuel cell.
- (d) **Fuel Filler and Vent Requirements:**
 - (1) Vent must exit to the outside at left rear taillight area.
 - (2) Fuel cell must fill from inside the trunk and have a positive seal type cap.
 - (3) A fuel vent check valve is mandatory.
- (e) **Fuel Lines:**
 - (1) Fuel line may be routed through passenger compartment but must be in a steel tube.
- (f) **Fuel Pump:**
 - (1) Electric fuel pumps are allowed but must have an oil pressure cut-off switch to automatically stop the pump if the engine stops.
- (g) **Fuel Filter:** 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) It is the responsibility of the driver, not Toyota Speedway at Irwindale, its officers, or its agents to ensure his/her safety devices and 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) All drivers must wear helmet, eye protection and fireproof suit whenever they are on the track. 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:**
 - (1) Snell SA2000 or SA2005 helmet required.
- (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.
 - (4) Mounting and installation: refer to the manufacture and the current NASCAR Weekly Racing Series Rule Book.
- (f) **Seats:**
 - (1) An aluminum seat approved for racing is required. See the drawing in the back of the NASCAR Weekly Racing Series Rule Book for approved mounting.

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- (2) All cars must have a headrest located directly behind the driver's head.
 - (3) Seat back and headrest must be supported by the cage.
 - (4) No fiberglass or plastic seats.
- (g) **Roll Bars:**
- (1) All roll cages must be minimum 1½-inch x .090-inch wall C.R.E.W. All joints must be gusseted.
 - (2) All cars must have a six-point roll cage. This means four up-rights with a roof hoop and two bars to the rear of the car must attach to the frame behind the cage and behind the rear axle. All unibody cars must have at least 6-inch by 6-inch by 1/8-inch square plates attached to the 6 roll cage mounting points. All cars must have a minimum of four door bars on the driver's side and minimum of three door bars on the passenger's side. Door bars must have 2 supports between the bars.
 - (3) All bars that may come into contact with the driver's head or body must be padded.
 - (4) Driver's side door bars must be plated with a steel plate of not less than 1/8-inch material. The minimum size of this plate will be 24-inch x 32-inch or smaller pieces may be welded into the gaps in the door bars.
 - (5) Roof centerline halo bar required.

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.