

# North State Racing Association

## 2011 4-Banger Rules

Ukiah Speedway  
916 South Dora St.  
Ukiah, CA 95482  
(707) 462-7242

### 1 General

#### 1.1 Glossary

##### 1.1.1 OEM

Original Equipment Manufacturer: Manufactured by the original manufacturer.  
The part may not be modified in any way that affects the performance specifications.

##### 1.1.2 Stock

OEM, or after-market with performance specifications that are comparable to that of the OEM part.  
The part may not be modified in any way that affects the performance specifications.

##### 1.1.3 Technical Discretion

Inspection and assessment according to the spirit and intended purpose of the rules. The spirit, intended purpose, and safety concerns will always override the current wording of the rules.

##### 1.1.4 OD

Outer Diameter: Tube cross-section diameter measured from the outer edges.

##### 1.1.5 Measurement Units

A double-quote	2 <sup>“</sup>	inches.
A single-quote	2'	feet.
A super-script circle	90°	angle in degrees.
dBA		A-weighted decibels

A measure of sound weighted by how it affects the human ear. 0 dBA is barely not hearable in a quiet room, and 140 dBA will cause pain.

1.2 All rules are subject to Technical Discretion.

1.3 Passengers are optional.

### 2 Model

2.1 Must be front wheel drive.

2.2 Any year sub-compact sedan or hatch-back, or any model that is within the spirit of these rules.

### 3 Chassis

3.1 Must be stock, unmodified, and un-reinforced.

### 4 Suspension

4.1 The suspension must be stock and must work.

4.2 No modifications are allowed.

4.3 Suspension parts must remain OEM. No high performance parts allowed.

#### 4.4 Springs

4.4.1 Must be stock passenger car origin.

4.4.2 No spring jacks.

#### 4.5 Shocks

4.5.1 Stock replacement type shocks only.

#### 4.6 Sway Bar

4.6.1 Not allowed if not stock.

4.6.2 Bolts or all thread is allowed to attach.

### 5 Body

5.1 Must be stock.

5.2 Must be bilaterally symmetrical. That is, all left and right side configurations must match.

5.3 No cutting, chopping, sectioning, channeling, or shortening allowed.

5.4 Except as specified, no lightening of any components, such as the hood, trunk, doors, inner panels, fenders, or roof.

5.5 Body sheet metal must be kept in place at all times except where specified.

5.6 The complete bumper-to-bumper body must be maintained.

5.7 The stock unaltered floor pan, firewalls, trunk, trunk floor, and wheel wells must be retained.

5.8 The front and rear firewall must be sealed.

5.9 The driver compartment must be completely sealed from the trunk by a sheet metal firewall.

5.10 The trunk floor must be in place.

5.11 Doors must be welded, bolted, chained or secured so it will not open while racing. A driver will be black-flagged if a door comes open.

5.12 Door hinge and latch supports must remain stock and unaltered.

5.13 Anything that may shatter or break off during the normal course of racing, such as lights and their socket assemblies, all chrome and trim, or plastic grills must be removed.

5.14 Any sharp protruding objects on the car and/or in the driver compartment must be removed, or moved.

#### 5.15 Hood / Trunk

5.15.1 Must be stock, operational, and easily opened by a fire crew at all times.

5.15.2 The hood must be kept in place at all times.

5.15.3 May drill holes in truck and hood for pins. No hood latches. Leave hinges attached.

#### 5.16 Wheel / Fender Wells

5.16.1 Wheel wells may be cut to the circumference of the tire.

5.16.2 Front and rear inner fender wells must remain in place.

#### 5.17 Bumpers

5.17.1 Must be stock type.

5.17.2 Extra bracing is allowed.

5.17.3 Front, rear, and side nerf-bars allowed; maximum 1-1/2" diameter x .065 wall thickness. No battering rams. Must pass technical inspection.

#### 5.18 Aerodynamics

##### 5.18.1 Spoilers and Wings

5.18.1.1 A singled spoiler or wing on the rear.

5.18.1.2 The top of the spoiler/wing must not be over 4' from the ground.

5.18.1.3 Spoiler gussets must not be higher than the spoiler and must taper down in less than 4'.

5.18.1.4 No side-boards.

##### 5.18.2 Ground Effects

5.18.2.1 Anything including valances, skirts, and splitters. Must pass technical inspection.

#### 5.19 Seats

5.19.1 Must have a racing seat.

5.19.2 Seat belts and shoulder harness with sub-belt (5-point) are required.

#### 5.20 Windows

5.20.1 May be safety glass, lexan, or screen. Safety glass must be secured by 4 brackets a minimum of 1" wide x 4" high x 1/8" thick. Must pass technical inspection.

#### 5.21 Paint

5.21.1 Any images or content visible on the car is subject to the approval of the officials.

5.21.2 Racing paint jobs allowed.

##### 5.21.3 Car Numbers

5.21.3.1 Must be a contrasting color and easily readable by the track officials.

5.21.3.2 Can be up to three digits; either three numbers or one letter and two numbers. Letters must be same size as numbers (example *M37, 145, J26.*)

5.21.3.3 Front and rear numbers must be at least 8" high with a line width of at least 1".

### 6 Roll Cage

6.1 The purpose of the roll cage is to protect the driver and passenger from injury during a crash.

#### 6.2 Material

6.2.1 Roll bar tubing from 1 1/2" to 1 3/4" OD .090" thick.

#### 6.3 Design

6.3.1 A full four-point cage over and around both the driver and the passenger.

6.3.2 One (1) dash bar.

6.3.3 One (1) horizontal bars behind the seats.

6.3.4 One (1) diagonal bar behind the seats from the top corner to the opposite bottom corner of the cage.

6.3.5 Optionally, two (2) bars from the top rear of the car to the rear frame or trunk floor.

6.3.6 Gussets optional and may be required by technical inspection.

##### 6.3.7 Door Bars

6.3.7.1 Driver and passenger side: Three (3) horizontal connected vertically in the middle.

6.3.7.2 The driver and passenger door inner panel may be removed to fit the door bars, but the bars must be flush with the inside of the exterior skin.

#### 6.4 Mounting

6.4.1 Each vertical cage and door post must be welded to a 6" square x 1/4" thick mounting plate. The mounting plates can be welded or bolted to the floor pan. If bolted, it must have at least four (4) 3/8" (grade 5) bolts with washers.

### 7 Engine

7.1 Must be 4-cylinder.

7.2 The basic rule: Do not do anything to the engine.

7.3 Must be stock for the year and model.

7.4 Must be mounted in the stock location using the stock mounts.

7.5 OEM intake and exhaust manifolds only.

7.6 Aftermarket air filter allowed.

## 8 Fuel and Fuel System

8.1 Stock fuel tank and system required.

8.2 Pump gas only.

## 9 Electrical System

### 9.1 Battery

9.1.1 Only one (1) 12v battery.

9.1.2 Must be mounted in a safe and secure location.

## 10 Steering

10.1 Must be stock.

## 11 Exhaust System

11.1 Must be stock

11.2 May remove catalytic converter (recommended.)

11.3 The noise level must not exceed 95 dBA at 100'.

11.4 Any type muffler allowed.

## 12 Wheels / Rims

12.1 Reinforced racing type wheels are allowed.

12.2 Wheels and tires must be of like size.

12.3 Maximum 6" wide.

### 12.4 Tires

12.4.1 Must be 60 series.

12.4.2 No less than 400 tread wear.

12.4.3 Must have tread in safe condition.

12.4.4 No slicks.

12.4.5 No recaps.

12.4.6 No altering, conditioning, or softening.

## 13 Safety

13.1 All safety equipment is subject to Technical Discretion.

13.2 **Helmet** of an approved type is required

13.3 **Firesuit** protection of an approved type is required.

13.4 Nylon clothing or shoes are not allowed.

13.5 **Arm restraints** are required for convertibles.

13.6 Convertibles must have overhead bar with 3" clearance.

13.7 **Seat belts** must be 5-point.

13.8 Adequate back-bracing or chaining required on the seats so the back does not collapse on the driver or passenger.

13.9 **Window nets** are required.

13.10 **Fire extinguisher** of at least 2¾ lbs., in easy reach of the driver, full, and with a gauge or indicator that is readable from outside the car is required.

13.11 Remove all air bag systems in car.

13.12 May install removable steering wheel.

13.13 Passenger has the same safety requirements as the driver.

13.14 **No one under the age of 18 can ride as a passenger.**

## 14 Events

14.1 This is not a demolition style class.