

# Lakeport – Ukiah Speedway

## 2014 Mini-Stock Rules

*This class is intended to be an inexpensive stock class for four cylinder vehicles and mini-pickups.*

### 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 Abbreviations

**OD** Outer Diameter Tube or hole cross-section diameter measured from the outer edges. **ID**

Outer Diameter Tube or hole cross-section diameter measured from the inner edges.

##### 1.1.5 Measurement Units

A double-quote	2"	inches
A single-quote	2'	feet
	cc	volume in cubic centimeters
	cfm	flow rate in cubic-feet per minute
A super-script circle	90°	angle in degrees
Sound level	90dBA	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 Rule changes from the previous year are highlighted in gray (Spelling, wording, and format changes are not).

1.3 All rules are subject to Technical Discretion.

1.4 All parts must be stock unless otherwise specified in these rules.

### 2 Model

**2.1 Year** 1968 to 2014

**2.2 Wheelbase** Maximum of 103", ±1/2". Maximum truck wheelbase of 105", ±1/2".

**2.3 Includes** Domestic or foreign manufacturer  
Station wagon, mini-pickup, compact sedan, or coupe  
Two (2) or four (4) passenger car  
Front wheel driver okay  
Mid engine okay

**2.4 Excludes** Exotic foreign cars  
Four-wheel drives

### 3 Weight

#### 3.1 Minimum Total

**3.1.1** One (1) lb. per one (1) cc of engine displacement. Minimum of 1,800 lbs.

**3.1.2** Add 50 lbs. if a stock aluminum head is used or the Esslinger M-6049-E23A aluminum head.

**3.1.3** Pro-4 type cars must weight a minimum of 2300lbs.

**3.1.4** Add 50lbs if car has a tube chassis

**3.1.5** Add 50lbs if car has aftermarket suspension

**3.2 Maximum Left Side** 57% - Pro-4 type cars 55%

#### 3.3 Weights

**3.3.1** Each 0 – 100 lbs. of weights must be secured to the car with either two (2) 1/2" bolts or four (4) 3/8" bolts..

**3.3.2** Must be painted white and clearly marked with the car number.

### 4 Chassis

**4.1** Stock frame or unibody.

**4.2** Unibody sub-frames may not be altered or stretched.

**4.3** A unibody may be reinforced with box tubing (maximum 2" and 0.095" thick) located in a straight line between the front and rear sub-frames.

**4.4** Front and rear hoop required as radiator and fuel tank protection. No larger than 13/4" OD 0.095" thick tubing front and rear. May not protrude past bumpers.

**4.5** Must have exposed tow hooks or straps on the front and rear. Chain or cable must be strong enough for a quick tow around or off the race track.

### 5 Suspension

**5.1** All suspension mounting brackets must be of stock components and in stock location for make and model.

**5.2** Upper strut mounts may be moved for alignment purposes. Upper and lower control arms may be cut for alignment purposes up to a total of 1" and is subject to technical inspection.

### **5.3 Springs**

**5.3.1** After market rated springs are allowed.

**5.3.2** Stock spring diameter for make and model

**5.3.3** Front and rear spring shims are allowed, but may only be located at the top of the spring.

**5.3.4** Coil springs may be cut to obtain desired height.

**5.3.5** Leaf spring cars may have lowering blocks.

**5.3.6** No bite bolts or weight jacks.

### **5.4 Shocks**

**5.4.1** Shocks can be mounted in any location.

**5.4.2** One shock per wheel. Spring must remain in stock location.

**5.4.3** Steel bodied, non-adjustable Heim-end shocks are allowed.

**5.4.4** \$50 claim per shock.

### **5.5 Sway Bar**

**5.5.1** Stock front sway bar mount only, attached to frame in stock positions and stock manner.

**5.5.2** All thread between a-arm and sway bar is allowed.

## **6 Body**

### **6.1 Manufacturer**

**6.1.1** The body manufacturer must be the same as the chassis (Toyota to Toyota, Ford to Ford, etc.).

**6.1.2** Interchange of body parts within the manufacturer's line is allowed.

**6.1.3** Parts may be fabricated or after-market as outlined below, but must match the body type and retain stock appearance within the manufacturer's line (For example: you can put an aftermarket Ford Taurus nose on a Ford Pinto).

### **6.2 Appearance**

**6.2.1** The body must maintain a stock appearance. No wedge or dune buggy body types.

**6.2.2** All body parts must maintain a stock appearance consistent with the body type.

**6.2.3** No visible exterior cutting or holes are allowed, except as otherwise specified.

**6.2.4** No chopped tops. Fiberglass Roof Okay

**6.2.5** 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.

**6.2.6** Track officials reserves the right to reject any exotic or non-stock appearing bodies.

### **6.3 Restraints**

**6.3.1** Any openable or removable part (hood, doors, trunk lid, etc.) must be secured to the car (chained, bolted, pinned, etc.).

### **6.4 Wheel Openings**

**6.4.1** Wheel openings may be cut a maximum of 4" from the tire.

**6.4.2** Wheel opening edges should be rolled under to avoid exposed edges.

### **6.5 Hood**

**6.5.1** May have a hole for the air cleaner that must be open only in the front and does not stand more than 3" above the hood.

### **6.6 Aerodynamics**

**6.6.1** All body parts must remain closed in the stock position so as to not act as an active aerodynamic part.

**6.6.2** No wings.

#### **6.6.3 Front Valence**

**6.6.3.1** Cannot extend beyond the leading edge of the nose piece.

#### **6.6.4 Rear Spoiler**

**6.6.4.1** Maximum height of 4".

**6.6.4.2** No wider than the stock inner edge of the quarter panels and must attach directly to the body (no openings between the blade and the body).

**6.6.4.3** No forward bracing or side panels.

### **6.7 Bumpers**

**6.7.1** Front and rear bumpers are required.

**6.7.2** May be stock or molded into the bodywork.

**6.7.3** After-market stock appearing front or rear tail pieces are allowed.

**6.7.4** Ends must be rounded and turned back into the body to avoid hooking.

**6.7.5** Reinforcement tubing may be no larger than 1 1/2" OD .095" thick.

### **6.8 Side Rub Rails**

**6.8.1** Optional single horizontal 1 1/2" OD .095" thick square or round tube for each side to protect the bodywork.

**6.8.2** Must be mounted flush to the body.

**6.8.3** End mount points must be within 6" from the end of the bar.

**6.8.4** Ends must be closed and angled or turned into the body.

**6.8.5** No sharp edges or protruding ends that might be hooked.

### **6.9 Windows**

**6.9.1** All window openings must remain stock size.

#### **6.9.2 Windshield**

**6.9.2.1** Must be safety glass, lexan, or 1/4" to 3/4" metal screen mesh.

**6.9.2.2** Must be braced by an inside vertical metal strap at least 1" wide x 1/8" thick mounted as close as possible to the center of the windshield.

**6.9.2.3** Safety glass or lexan must be additionally secured by 4 brackets a minimum of 1" wide x 4" high x 1/8" thick.

**6.9.3** Door windows may not be covered or obscured by anything other than safety netting (see 17.2.8).

**6.9.4** Rear-quarter window openings may be covered.

**6.9.5** Rear window of Lexan or 1/4" to 3/4" metal screen mesh is optional.

## **6.10 Paint**

**6.10.1** Any images or content visible on the car is subject to the approval of the track officials.

**6.10.2** The paint scheme, images, and lettering must be done in a neat and professional "Racing Paint Job" style.

### **6.10.3 Car Numbers**

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

**6.10.3.2** Top (oriented to the right side) and side numbers must be at least 18" high with a line width of at least 4".

**6.10.3.3** Front and rear numbers must be at least 6" high with a line width of at least 1".

**6.10.4** The engine displacement in CCs must be clearly marked on the right-side hood or the right front fender so that it may be easily read when the car is being weighed.

## **7 Roll Cage**

**7.1** The purpose of the roll cage is to protect the driver from injury during a crash, and not to stiffen the chassis.

### **7.2 Material**

**7.2.1** Roll bar tubing at least 1 1/2" OD .090" thick.

**7.2.2** No galvanized or black pipe.

**7.2.3** The design, materials, construction, and welds of each roll cage is subject to Technical Discretion.

### **7.3 Design**

**7.3.1** A full four-point cage over and around the driver.

**7.3.2** One (1) dash bar.

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

**7.3.4** Two (2) bars from the top rear of the car to the rear frame or trunk floor.

#### **7.3.5 Doors Bars**

**7.3.5.1** Three (3) horizontal and two (2) vertical bars on the driver door.

**7.3.5.2** Two (2) horizontal and two (2) vertical bars on the passenger door.

**7.3.5.3** The door inner panels may be removed to fit the door bars, but the bars must be flush with the inside of the exterior skin.

#### **7.3.6 Door Plates**

The driver side must have door plates installed between the door bars and the door skin.

**7.3.6.1** Made from at least 1/8" (.125") thick steel

**7.3.6.2** Must at least completely cover the door bar openings from the top to the bottom door bar, and from the rear to the front upright posts.

**7.3.6.3** If welded to the door bars, can be separate and must have 3" of weld for every foot.

**7.3.6.4** If bolted to the door bars, must be a single plate and mounted with at least 6 grade 5 "F" bolts.

**7.3.6.5** Must be visible from the interior for inspection.

**7.3.6.6** Door plates that do not exactly conform but are deemed to be safe may run, but the car must carry a penalty weight of 100 lbs.

**7.3.7** No offset, chopped, or narrowed cages. The right side of the cage must be no narrower than the right side of the front and rear sub-frames.

**7.3.8** Gussets for all pipe and tubing angles are optional but **strongly** recommended, and may be required by technical discretion.

**7.3.9** Extra safety bracing allowed.

### **7.4 Mounting**

**7.4.1 Frame** Each upright post must be welded to the frame side rail.

#### **7.4.2 Unibody**

**7.4.2.1** Each upright post can be welded to a foot plate – minimum 1/4" thick 4" square. The foot plate must be bolted through the pan to another foot plate underneath with a minimum of four (4) 3/8" (grade 5) bolts.

**7.4.2.2** Each upright post can be welded to the stiffening box tubing between the sub-frames (see §4.4).

## **8 Engine**

**8.1** Any engine to any chassis within manufacturer's line (Toyota to Toyota, Ford to Ford, etc.)

**8.2** Adjustable timing gear is allowed.

**8.3** Four (4) cylinder engine, either water or air cooled with up to 2600cc displacement. No more than four (4) valves per cylinder. No rotary engines. CCs must be marked on hood or right side fender (See §6.11.4).

**8.4** All engine components must be stock or stock replacement for make of car except as may be otherwise specified. High performance after-market racing pistons, rods, and crankshaft are allowed. Studs OK. No aluminum blocks except as may be stock for make and model. No after-market aluminum racing blocks.

**8.5** Engine must remain in stock location for make and model. Solid motor mounts are allowed.

**8.6** Firewalls may not be moved or altered.

**8.7** Oil breather on side, rocker covers, and pan allowed if vented to center or left side. Stock type oiling system only. Pickup location optional. Oil pan optional. Skid plate recommended. No dry sumps.

**8.8** Boring and balancing optional.

**8.9** Camshaft may be any brand. Dual-overhead cams are allowed Cams must be flat tappet. No mushroom tappets. Solid lifters OK.

**8.10** Stock type rocker arms only.

**8.11** Stock production valve springs only. No enlarging of valve spring OD. Dual valve springs are allowed if stock, or with a 25 lb.

weight penalty.

**8.12** Stock production cylinder head only. Heads may be shaved. No enlarging, polishing or grinding of head ports. No aluminum heads other than stock.

**8.13** HEI or dual point is allowed. No magnetos. A distributorless ignition system (crankshaft ignition) is allowed if stock.

**8.14** Cast iron exhaust manifold or economy headers only. No porting, polishing or grinding.

**8.15** Any steel flywheel allowed. No aluminum flywheels.

#### **8.16 Manifolds**

##### **8.16.1 Intake**

May be aftermarket.

##### **8.16.2 Exhaust**

May be stock cast-iron or aftermarket headers.

#### **8.17 Fuel Delivery**

**8.17.1** A box stock 500 or 350 C.F.M. Holley carburetor based on part #4412 design shall be used. All air entering the engine must pass through the venturi. Blocking the power valve is permitted. Choke blade may be removed. Jets and power valve may be changed to enhance performance. No other after market carburetors shall be allowed. Vacuum orifice on the base shall be accessible for inspection.

**8.17.2** A \$250.00 carburetor claim is in effect for this division.

##### **8.17.3 Restrictor Plate**

NOT REQUIRED

**8.17.4** Maximum spacer height between carburetor and manifold is 2".

**8.17.5** Two throttle return springs mandatory. Must be secured at separate locations. Must pass tech.

**8.17.6** If there is an electric fuel pump, there must be a low oil pressure cut-off switch.

### **9 Fuel and Fuel System**

#### **9.1 Fuel**

**9.1.1** Gasoline only.

**9.1.2** No Nitrous (N<sup>2</sup>O), or any other fuel or combustion additive.

#### **9.2 Fuel Cell**

**9.2.1** Must be located on the opposite end of the car as the engine (usually the trunk).

**9.2.2** Must be completely enclosed in a metal container made of at least 22 gauge.

**9.2.3** Must be mounted to the car in a very secure manner. Examples include mounting all four (4) top edges, or with four (4) under-slung metal straps at least 1" wide x 3/32" thick. The mounting is subject to technical inspection and should remain secure even when damaged.

**9.2.4** The mounting area may be reinforced with 2" x 2" box tubing, but this reinforcement should not further stiffen the chassis.

**9.2.5** No plumbers tape, chain, or bungee cords as mounting materials.

**9.2.6** Must be no lower than 10" from the ground.

**9.2.7** Must have an electrical grounding strap to chassis ground.

**9.2.8** Must have a fuel cell guard made of at least 1 1/2" OD .095" thick tubing that is as wide and as low as the fuel cell.

**9.2.9** No rubber hose from filler spout to tank.

**9.2.10** The gas tank vent must have a check valve.

**9.2.11** If fuel lines are run through the driver's compartment, they must be enclosed in a steel tube, and there must be a fuel shut off valve.

**9.2.12** An emergency fuel shut-off valve must be mounted by the fuel tank, in plain sight, clearly labeled, and easily reachable by track officials.

#### **9.3 Gas Cap**

**9.3.1** Must be strapped or chained to the fuel cell.

**9.3.2** Must be clearly marked with the car number.

**9.3.3** No snap open types.

### **10 Radiator / Cooling System**

**10.1** One radiator only, mounted in front of car.

**10.2** Adequate radiator catch tank mandatory. Minimum 1/2 gallon capacity. Plastic jug (i.e.: anti-freeze or detergent container not acceptable).

**10.3** Positively No antifreeze or coolant. Water Wetter okay

**10.4** No cooling or filter systems allowed in driver's area.

### **11 Electrical System**

#### **11.1 Battery**

**11.1.1** If mounted in the driver's compartment, must be enclosed inside a covered and vented box that is mounted on the floor.

**11.1.2** The battery box must be mounted with at least two (2) 3/8" or larger bolts attached to at least a 1 1/4" x 1/8" metal strap across the top.

**11.2** No communication devices are allowed.

#### **11.3 Transponders**

**11.3.1** Must be located 10' from the front nose of the car with a clear sight of the track surface.

**11.3.2** To pass tech, the transponder must be in place prior to inspection and must remain in working condition for the rest of the event.

### **12 Steering**

**12.1** Steering must be stock for make/model of chassis.

**12.2** Steering box must remain in stock location.

**12.3** Quick disconnect steering wheel is allowed.

Aftermarket steering shaft is allowed. No steering quickneers

### **13 Drive Train**

#### **13.1 Clutch**

**13.1.1** The bell housing must have a removable clutch inspection plate. Clutch must be accessible for technical inspection at anytime and transmission might be removed.

#### **13.2 Transmission**

**13.2.1** Must be stock for make and model.

**13.2.2** Automatics OK

**13.2.3** Reverse gear required.

**13.2.4** Transmission breathers recommended.

#### **13.3 Driveline**

**13.3.1** Must have two (2) driveline hoops, near both the front and rear universal joints, that fully enclose the driveline (3 60°) and will keep a broken driveline from falling off. They must be at least as strong as 2" wide x 1/8" thick metal straps.

**13.3.2** The driveline must be painted white.

### **14 Rear End**

**14.1** Interchanging of rear ends allowed within the manufacturer's line.

**14.2** Locked and locking rear ends are allowed.

**14.3** Must meet suspension rules (see section 5).

### **15 Exhaust System**

**15.1** Exhaust pipe must be shielded from driver's compartment.

**15.2** Tail pipe must extend past driver's seat and be securely fastened. No turn downs.

**15.3** Any muffler meeting sound level of 90 dBA at 100 feet allowed.

### **16 Wheels**

#### **16.1 Rims**

**16.1.1** Maximum rim width of 8 inches.

**16.1.2** Any after market rim allowed.

**16.1.3** No stock rims.

#### **16.2 Brakes**

**16.2.1** Each wheel must have stock brakes in good working order.

**16.2.2** After market pedals OK.

**16.2.3** No after market racing brake components.

#### **16.3 Tires**

**16.3.1** Goodyear D2833 - 23 x 8 x 13 or D2832 - 22x8x13 or equivalent.

**16.3.2** No altering, conditioning, or softening.

### **17 Safety Requirements**

**17.1** All safety equipment is subject to technical discretion.

#### **17.2 Interior**

**17.2.1** Full stock firewall and fireshields to completely separate driver from trunk and engine compartment are required.

**17.2.2** Full stock floor pan required and must extend rearward to axle.

**17.2.3** The interior compartment must be completely sealed from the track with no open holes in the floor.

**17.2.4** Throttle toe-strap is recommended. Cable throttle is not recommended.

**17.2.5** All padding must be resilient and effective.

**17.2.6** Roll cage bars around the driver must be padded.

**17.2.7** The steering wheel center must be padded.

**17.2.8** The driver window must have SEMA approved window nets mounted securely and for quick and easy removal from either the inside or the outside.

**17.2.9** Must have a fire shield between the drivers compartment and the fuel cell compartment made from at least 24 gauge sheet steel.

**17.2.10** A motor kill switch must be installed, clearly marked, easily identifiable, and easily accessed by the driver or anyone reaching through from the driver or passenger window.

**17.2.11** Must have at least one (1) fire extinguisher of at least 2 lb., or a commercial fire system, mounted in easy access of the driver and passenger, and with gauges or status indicators readable from either the driver or passenger window.

#### **17.3 Driver Equipment**

**17.3.1** Must have an aluminum racing seat with a padded head rest no more than 4" from the driver's helmet, and with the back secured to the roll cage.

**17.3.2** Head and neck restraints are **strongly** recommended.

**17.3.3** Must have a 5 point SEMA approved racing harness with at least a 3" wide lap belt, 2" wide shoulder harnesses, and a crotch strap. Must be directly secured to the roll cage. No chain extensions are allowed. The shoulder harnesses must be mounted with stress point at shoulder height.

**17.3.4** All belts must have the manufacturer's date tag, be no older than five (5) years, and in good and serviceable condition.

**17.3.5** The driver must wear a 1995 or newer Snell approved racing helmet with goggles or a face shield.

**17.3.6** The driver must wear an SFI approved fire suit in serviceable condition. There can be no holes or rips.

**17.3.7** Fire proof gloves and shoes are strongly recommended.

### **18 Policy Statements**

**18.1** Any modifications not covered in these rules will not be allowed unless approved by Speedway Officials

**18.2** Equipment will not be considered legal simply because it went through inspection unobserved or because a rule has not been

written against it.

**18.3** Cars are subject to inspection at any time.

**18.4** Officials reserve the right to confiscate and hold any parts and/or equipment not conforming to the rules

**18.5** Officials reserve the right to judge, decide, and establish what constitutes a legal part of car.

**18.6** Weight may be added or adjusted at any time to benefit or equalize the racing program.

**18.7** **OFFICIAL'S DECISIONS ARE FINAL**