



NCRA OKLAHOMA MODIFIED RULES 2009

Safety Rules: The following safety guidelines will be in effect at all times and will include any driver and car that competes in a O'Reilly/NCRA sanctioned event.

SEATS: Only custom manufactured aluminum seats, acceptable to series officials, will be permitted. The seat must be properly installed. All seats should have padded rib protectors. An adequate padded headrest, acceptable to series officials, is mandatory.

SEAT BELTS & SHOULDER HARNESS: A lever-type quick release latch must be fastened to the lap belt. A lap belt not less than (3) inches wide is mandatory. Both ends of the lap belt must be fastened to the roll bar cage with high quality bolts not less than 3/8 inch in diameter. The shoulder harness must be no less than (3) inches wide and must be attached to a roll bar behind the drivers seat. Where the harness crosses the roll cage, it must pass through a steel guide welded to the roll cage that will prevent the harness from sliding side to side. Shoulder harness inertia reels will not be permitted. A center (crotch) belt must be securely mounted to the lower seat frame at the bottom and to the lap seat belt on the top. Where the belts pass through the seat edges, it must have a grommet installed, be rolled, and/or padded to prevent cutting of the belt. All seat belts and shoulder harnesses must connect at the lap belt with a quick-release buckle acceptable to series officials. Seat belts should not be used beyond (5) years. The date of manufacture should remain visible at all times. All cars should have either and approved window net in the drivers door or arm restraints.

DRIVER UNIFORM: It will be required that at all times the driver wear a driving suit and gloves of fire resistant material that effectively covers the body. It is highly recommended that drivers use a Snell SFA 3.2A/5 uniform with full Nomex underwear.

HELMETS: Driver will be required to wear a full face helmet at all time while practicing or in competition. It is recommended that helmets meet the specifications set forth in the Federal Motor Vehicle Safety Standard Regulations or meet the specifications set forth by the American National Standards Institute Inc. All drivers must wear neck brace.

1. FRAME:

OEM complete. 1964 or newer, perimeter American rear wheel drive passenger car frame only. No sports car frames. Frame must be full and complete, cannot be widened or narrowed, and must be able to support roll cage on both sides, **except:** weight jack in original center line of spring tower allowed; frame may be cut a maximum 36" forward from center of rear end housing. Horns may be removed in front of steering box. Front crossmember may be notched and boxed for radiator and/or steering clearance. Maximum seven inch wide opening in side of spring tower for spring removal. Maximum two-inch wide by four inch tall frame stiffener may be welded directly to outside of left side frame rail. Minimum wheelbase 108 inches. Maximum 112 inches both sides. Maximum overall width (front or rear) shall not exceed 78 inches from outside of tire to outside of tire. No part of frame can be lower than four inches from ground except front crossmember.

2. ROLL CAGE:

Must consist of continuous hoops. Minimum 1.75 inch O.D. tubing with a minimum wall thickness of .095 inch for main cage. Frame mounted in at least six places (low carbon or mild steel recommended). Must consist of a configuration of front, rear and top hoops connected by tubing on sides or side hoops. Driver's head must not protrude outside cage with helmet on. Roll cage must be securely supported and braced with minimum one cross bar in top halo. Foot protection bar required. Main cage no further forward than rear of engine. All bars forward of cage must be lower than hood.

3. BODIES:

- (a) 1970 or newer American compact passenger car only, no panel cars or station wagons. Stock appearing front windshield and rear window support unit, painted roll bars not acceptable substitute. May utilize a flat half-windshield, with no wings, mounted to the roll cage. Must have a minimum of three windshield bars in front of driver. (b) Firewall and floorboards are mandatory. All body parts should be recognizable as factory production vehicle. Fiberglass or metal duplicates of body parts are permitted. Homemade body parts may be constructed of steel, aluminum or fiberglass. All NCRA cars in competition must have a complete paint job. Body must be the same width, front to rear, and parallel to the frame. © Original roof line of vehicle must closely be maintained. Must be full size roof. No wings or any other ground effects are allowed anywhere outside or inside car. Sail panels must closely resemble examples shown on body diagram and be the same on both sides of car. Any reinforcing lips on rear of sail panel must be 180 degree bends. (d) all NCRA cars must be numbered with large legible numbers on both sides, on top and rear panel. Numbers on sides and top of car must be in contrasting color from body, be at least four inches thick and at least 20 inches high. (e) Sponsor's names must not interfere with car numbers and must be neatly lettered. (f) Engine compartment will remain open, no side panels; hood sides may have maximum six inch drop and must be enclosed at rear of hood; maximum hood scoop height—six inches. Passenger side of body must be no further forward than rear of block.
- g. (optional) Rear of bodies to be solid panel at least eight inches high and include car number and NCRA decal. h. No panel in front of right door to engine compartment. No inner panels. No car covers. i. Driver and passenger side windows must have at least 12-inch opening, measured at center of window, whether the roof or roll cage, and the highest point at the bottom of window, whether the interior or body.

See diagrams after last page of rules.

- (b) **SPOILERS:** A rear spoiler not exceeding 6 inches of total material and not exceeding the width of the rear deck. A maximum of 4 tapered supports may be installed on the front of the spoiler no higher than the spoiler.

DRIVER COMPARTMENT: Must have minimum three windshield bars in front of driver. Aluminum high back seat only and must be bolted in next to left side frame rail and ahead of rear tires. Bottom of seat can be no lower than bottom of frame rail. Driver must be sealed off from track, driveline, engine, fuel cell, canisters and pumps. Oil coolers must not protrude above interior. Accumulators cannot be mounted between driver and left side door bars. No driver adjustable devices while car is in competition except brake adjuster. No mirrors or reflective sun visors.

MINIMUM NCRA MODIFIED PURSE

B Feature:

1-10 transfer to the A Feature.	1. 1,000	16. 300
11 thru 20 pays: \$100	2. 800	17. 300
	3. 600	18. 300

C Feature:

1-10 transfer to the B Feature.	4. 500	19. 300
10 thru 20 pays: \$75	5. 500	20. 300
	6. 500	21. 300
	7. 500	22. 300

D Feature:

1-10 transfer to the C Feature.	8. 500	23. 300
10 thru 20 pays \$50	9. 500	24. 300
	10. 400	
	11. 400	

E Feature:

1-10 transfer to the D Feature.	12. 400	
10 thru 20 pays \$50	13. 400	
	14. 400	
	15. 300	

***Note:** Half Mile Tracks Will Start
(24) Cars In The "A" Feature.

4. FRONT SUSPENSION

All components must be steel, unaltered OEM, in OEM location, and replaceable by OEM parts, **except** tube-type upper A-frames with aluminum/steel cross shaft, and mounts can be moved. OEM replacement tubular control arms OK. Lower A-frames must be right and left and of same design: rubber, nylon or steel lower A-frame bushings, no offset or bearing type, welded or bolted shock mount on lower A-frame. Lower A-frame mounts and bolt holes on frame must be in OEM location.

5. STEERING

All components must be steel, unaltered OEM, in OEM location, **except** outer tie rod end and adjustment sleeve may be replaced by a minimum .625 inch steel rod end and steel tube; spindles can be ground for brake caliper clearance only. Unaltered OEM replacement Pinto spindles, raised cast, spindles must be right and left and of same design. Bolt on spindle savers allowed. Steel steering shafts and knuckles only. Steering quickener, steering wheel and quick release may be aluminum. Cockpit steering may be modified, must be kept on left side. No rack and pinion.

6. SHOCKS

One steel, non-adjustable, unaltered shock per wheel. One additional shock allowed on rear suspension. No threaded body, front coil-over, air, or remote reservoir shocks. No Schrader valves.

7. SPRINGS

Steel or composite leaf spring allowed. One coil and/or leaf spring per wheel only. One additional spring allowed on pull bar or lift bar, may be progressive. Any coil spring min.4.5 inches O.D.. No torsion bars or air bags.

8. REAR SUSPENSION

All components must be steel. No covers allowed. All trailing arms/link bars must be solid tubing. Rear of frame may be altered to accept leaf or coil springs. Steel coil-over eliminators or steel/aluminum coil-over kits allowed. Must conform to shock and spring rules. One mechanical traction bar (pull or lift, not both). All suspension parts must be visible on both ends.

9. REAR END

Any steel approved rear end allowed. Safety hubs (floater) allowed. All components must be steel except lowering blocks, cap and drive flange. Full steel spool, steel mini spool or welded rear ends only. Steel axles only. One piece drive flange only. No torque dividing differentials. No scalloped ring gears.

Steel tube quick change rear ends are allowed. Steel axle tubes only. Minimum 10" ring gear only. No titanium, no aluminum birdcages, and no wide five hubs. *Quick Change rear ends are optional not mandatory. Aluminum spools, brackets and pinion covers are OK.

10. BUMPERS/RUB RAILS

Steel only. Bumpers must be used both front and rear at all times and welded, or mounted with bolts. Must be minimum 1.25 inch O.D. tubing. .065 wall thickness on front. .095 wall thickness on rear. Two-bar front bumpers must be mounted frame-end to frame-end no wider than width of material outside frame horns and with bottom loop parallel to ground. Top bar must be directly above bottom bar, minimum 6.5 inches apart, measured center to center. Rear bumper and nerf bars can be no wider than tires with no sharp edges on either end.

11. TIRES AND WHEELS:

Must run Hoosier 83/8-15 A40 or H-40 or 83/8-15 or A40 or H-40 "WRS" or Hoosier IMCA stamped tire. No D-40 allowed. Any 8" steel wheel.

12. BRAKES

Must be steel approved OEM, operative four wheel, drum or disc. Must maintain minimum OEM dimensions for hubs/rotors and calipers, cannot be lightened. Bolt pattern maybe changed. Larger studs allowed. Rear rotors may be aftermarket, minimum 0.810 inch thickness. Vented rotors only. No scalloped rotors. No brake shut-off or pressure sensitive devices. One proportioning device allowed, front to rear only. Brake lines must be visible.

13. EXHAUST

Round tube headers only. All primary header tubes must enter directly into one collector at same point at end of header and point rearward.

14. FUEL SYSTEM

Racing fuel cell required, maximum 32 gallon capacity, must be in minimum 18 gage steel container. Cell must be securely mounted behind rear axle, between tires, minimum of four inches ahead of bumper, minimum of ten inches above ground. Must mount with minimum two .125 inch thick solid steel straps, two inches wide around entire cell. All cell mounts must be steel, securely welded to frame/cage. Protective tubing must cover rear and extend past both sides of cell. No part of cell shall be lower than protective tubing. Fuel cell vents, including cap, must have check valves. Pick-up must be on top or right side of cell. Limit one fuel filter. No cool caps. If fuel cell does not have aircraft style positive seal filler neck/cap system, a flapper, spring or ball type rollover valve is required.

(a) One naturally aspirated 2 or 4 barrel carburetor only. No adjustable carb spacers.

15. FUEL

Gasoline or alcohol. No performance enhancing additives. Upper cylinder lube allowed. Fuel sample may be taken from any car at any time.

16. BATTERY/STARTER

One battery only. Must be shielded and securely mounted between frame rails. Must have capability of starting without being pushed or pulled. Must leave initial staging area on demand, unaided or go to rear of that race.

17. GAUGES/ELECTRONICS

No transmitting or listening devices, timing retard controls, or digital gauges (including tach). No electronic monitoring computer devices capable of storing or transmitting information except analog tach. No adjustable ignition control boxes. Only one 12 volt ignition box allowed, must be out of driver's reach. No additional ignition accessories allowed. Only change allowed to ignition box is one high-end rev-limiter setting. This setting can be changed through one chip only, or an internal setting inside box. No electronic traction control devices.

18. TRANSMISSION/DRIVE SHAFT

Must have at least one gear forward and one reverse, plus a neutral position. With motor running and car in a still position, driver must be able to engage car in gear and move forward, then backward. Layne, Ernie Glide, Bert and Brinn transmissions will be allowed as well as any OEM transmission. No five speed transmission, "in or out" boxes, or quick change devices allowed. Functioning shifter must be in stock location on transmissions manufactured after 1995. All manual gear-type transmissions must have a standard OEM case and must have a working disc-type or approved cone-type clutch inside and explosion proof steel bellhousing. Automatic transmissions must remain in OEM stock appearing automatic case. Original bellhousing must remain. Must have an approved scatter shield or blanket. Scattershield may be constructed of 25-inch by three-inch steel, 270 degrees around flexplate or flywheel. No Brinn-Pro Series Transmission or Bert Ball Spline Transmissions. (Effective April 1, 2005)

19. ENGINE COMPARTMENT

Rear of engine (bellhousing flange) must be mounted at least 72 inches forward from centerline of rear axle. Engine offset must be kept within 2 inches of centerline of front crossmember with engine level. Minimum 11 inch engine height from ground to center of crankshaft. Radiator must be mounted in front of engine. Cooling system may be modified.

20. ENGINE SPECIFICATIONS

Any American make engine allowed. Steel heads and block only. All engines must be able to be used in conventional passenger car without alteration. Engine mounts cannot be removed or altered. Castings and fittings must not be changed. No machine work on outside of engine. "Wet" oiling system only.

21. WEIGHT:

Minimum weight limit of 2,400 lbs, no tolerance, after race with driver.

Weights must not be used in driver's compartment or outside of the body or hood area. Any weights added to other areas of vehicles must be securely mounted and must be painted white and have the car number on it, and attached with at least two .5 inch bolts. No titanium, magnesium or carbon fiber products. No gun-drilled, tubular, hollow bolts or studs. Steel fasteners only.

22. ASPIRATION:

One two-barrel or one four-barrel carburetor OK. Must be naturally aspirated. No fuel injection. No electric fuel pumps.

23. ENGINE CLAIMING RULES:

Swap only including fly wheel and balancing plate. Swap does not include; 1. clutch 2. pressure plate 3. bellhousing 4. headers 5. carburetor 6. starter 7. motor mounts 8. sending units and switches for oil pressure and water temperature 9. carburetor adaptor 10. fan and pulleys 11. clutch ball 13. throw out bearing 14. dip stick 15. water pump 16. fuel pump 17. distributor 18. plus wires 19. external oil restrictors (must furnish plugs) 20. water outlet and restrictor. First four position finishers must report directly to claim area and are subject to engine swap by any other driver finishing fifth on back in feature that has not been lapped by the fourth place driver. Failure to report directly to claim area will result in disqualification and loss of money and points for first infraction (engine is still claimable); will be treated as engine claim refusal for second infraction. Driver allowed one **ONLY** per event, regardless of outcome of that claim. In case of multiple claim on same engine, a drawing will be held to determine which driver gets the engine.

Driver making claim must drive his race car immediately after finish of feature, under its own power, directly to claiming area.

Claims must be made to NCRA official immediately after end of feature race, and claimed engine must be completely removed within one hour from the time claim is made and driver agrees to swap claimed engine.

No one driver may claim any other one driver more than once during current calendar year.

Refusal to swap forfeits all cash and contingency winnings for feature, and trophies earned in feature, plus any NCRA points earned in feature for that event. Any driver refusing to swap engine, when claimed with rules, regardless of his reinstatement with NCRA, loses his right to claim any NCRA driver's engine for 12 calendar months from date of refusal to swap. Claim is not charged to claiming driver in case of a refusal.

Once an engine claim has been made and accepted, the engine is not to be started under any circumstances. The car is to be pushed to the area where removal will take place. Any driver starting a claimed engine will be immediately disqualified from the event. All claimed engines must be removed from car at the track; buyer must examine engine before removal-once removal is started, sale is final.

No driver may claim more than two engines during current calendar year. In the event of exchange, claiming driver pays for both engines to be removed.

Any first time NCRA participant may not claim until second NCRA sanctioned event.

- A. 20" Max. 16" Min. (ground to center of bumpers, front & rear)
 - B. 6.5" min. (center to center)
 - C. 52" max. 42" min.
 - D. Hood 6" max. drop (sides) sealed off from drivers compartment & max. 3" rake
 - E. 42" max.
 - F. 6" max scoop cannot extend past front of hood
 - G. Door may extend max. 6" past block @ bottom on both sides
 - H. 19" max must be same on both sides.
 - I. 112" max 108" min.
 - J. 29" max 22" min
 - K. 72" max or not past block @ top. Left side may extend forward to cover foot box if necessary
 - L. 18" max 12" min opening both sides
 - M. With level, must have no more than 2" clearance @ rear of roof & 5" @ top front
 - N. 120" max 106" min
 - O. 48" max 34" min
 - P. 5" max @ rear gradual slope from roof to this point
 - Q. Interior slope is 6" max front to rear & flat across. If flat @ front half of interior you have used up 50% of your 6" so from behind driver to rear you may only have 3". Top of interior must be flush with top of door & quarter panels. An optional escape hatch from driver to passenger door to provide 12" opening allowed.
 - R. 38" max. 28" min.
 - S. 41" max 24" min. nose side spoilers 3" max. height & no longer than length of nose
 - T. 66" max. 24" min no narrower than radiator
 - U. 52" max 44" min
 - V. 56" max 41" min
 - W. Tires must be widest part of car
66" max 53" min measured @ top of interior deck, must be same front to back
- Rear filler panel:** 8" min. Optional
- B. 1 Spoiler:** 6" max. side braces 6" max. / 18" length (tapered)
 - B. 2** Maximum 24" long, 2" above and 2" behind spoiler (max. four braces)
 - B. 3** Maximum 3" tall from deck lid to end of angle. No square or rectangular supports allowed.

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 - N. 120" max 106" min
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 - P. 5" max @ rear gradual slope from roof to this point
 - Q. Interior slope is 6" max front to rear & flat across. If flat @ front half of interior you have used up 50% of your 6" so from behind driver to rear you may only have 3". Top of interior must be flush with top of door & quarter panels. An optional escape hatch from driver to passenger door to provide 12" opening allowed.
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