

Merritt Speedway & Tri-City Motor Speedway

4/6 Cylinder Rules

2022 Season

The 4 cylinder/6 cylinder class is designed to be a fun, safe, entry level, and low budget class. Front Wheel Drive and Rear Wheel Drive 4 cylinders and 6 cylinders will be allowed to compete in this class. This class has a structured payout.

The rules and/or regulations set forth herein are designed to provide for the orderly conduct of racing events and to establish minimum acceptable requirements for such events. These rules shall govern the condition of all events, and by participating in these events, all participants are deemed to have complied with these rules. NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATIONS OF OR COMPLIANCE WITH THESE RULES AND/OR REGULATIONS. They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to a participant, spectator or official.

The race director shall be empowered to permit reasonable and appropriate deviation from any of the specifications herein or impose any further restrictions that in his opinion do not alter the minimum acceptable requirements. NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM SUCH ALTERATION OF SPECIFICATIONS. **Any interpretation or deviation of these rules is left to the discretion of the officials. Their decision is final.**

No radios, **EXCEPT MANDATORY RACECEIVERS**, allowed in car, or with any pit member or anyone connected with the racecar.

Westhold Transponders are required to race in this class. If you do not own one, you have the option to rent one from the track. Transponders must be mounted at the centerline of rear axle and in an orange transponder pouch.

1. SAFETY EQUIPMENT

Rules apply at all times car is on track. An operational 2-½ pound minimum fire extinguisher with gauge visible for inspection purpose is mandatory in each racecar and tow vehicles. Extinguisher must be mounted in a quick release bracket. DUCT TAPE AND/OR ZIP TIES ARE NOT AN ACCEPTABLE MOUNTING DEVICE.

Rules apply at all times car is on track. Snell-rated SA2010 or SA2015 full face helmet required. Roll bar padding required in driver compartment. *Recommended: Fire retardant padding.* SFI-approved full fire suit required. Fire retardant gloves, shoes and neck brace (or head and neck restraint) required. **Competitors under the age 18 are recommended to use an SFI 38.1 head and neck restraint system due to the young body and developing bones.** Right and left seat head supports required if using head and neck restraint system. *Recommended: Fire retardant head sock and underwear, collapsible steering shaft.* Driver-side window net required, minimum 16 inch by 20 inch ribbon or mesh style, and must be mounted to roll cage so latch is at top front of window. Minimum three inch (two inch with head restraint system) wide SFI-approved five point safety belt assembly required, must be mounted securely to main roll cage. *Recommended: Safety belts no more than two years old.* Any safety equipment physically or visibly wore or damaged must be replaced, regardless of age. All safety equipment must not be altered and must follow manufacturers use, specifications and requirements for installation.

...M-, K- OR SA2000 or SA2005 rated helmets are not allowed. Rating sticker is located inside helmet liner.

...Mechanics gloves are not fire retardant, must wear fire retardant gloves.

...Roll bar padding must be on cage anywhere the driver can come into contact with it.

...No Y-type shoulder harnesses allowed. Harness should not be mounted to tail section or tail section bracing.

The interpretation of the condition of safety equipment will be left to the discretion of the officials. Their decision is final! Failure to comply or not meeting the criteria of the safety rules & regulations may result in you not being allowed to race until the appropriate repairs are made. Also, failure to comply or not meeting the criteria of the safety rules & regulations may result in disqualification.

2. ELIGIBILITY

Driver must be a minimum of 14 years old or have prior written approval if under 14 years old. Driver may not be driving or registered in another class. Driver must move up a class after winning their second championship if they are over the age of 18 or after the season when they reach the age of 18 after winning two prior championships.

3. PROCEDURES

Cars need to be set up and driver must be prepared to race in a clockwise or counter-clockwise direction.

4. WEIGHT

6 cylinders cars must weigh minimum of **2,700 pounds** with driver at end of feature on our scales.

4 cylinders cars must weigh minimum of **2,400 pounds** with driver at end of feature on our scales.

Top 5 will cross scales after every feature. Any added weight must be painted white with your number on it. Any lost weight on the track will result in disqualification. No part of body or structure may be gutted out to lighten car. Cars must display 2700 or 2400 on the right front A-Post of the car. This can be done with a wide-tip marker in contrasting color, paint, or decals.

5. TOW HOOKS

Tow chains are mandatory on the front and rear of car. Tow chains must be a minimum of 3/16 chain. Any car without a tow hook may be left in the infield until the end of the racing night.

6. BODY/ CHASSIS

Any **6 cylinder or 4 cylinder** front wheel/rear wheel drive, compact car with an engine under 3.9L. All cars must remain strictly OEM by the specifications listed per the VIN#. Must be unaltered OEM-appearing body. No convertibles. Minimum wheelbase 99 inches. Maximum wheelbase 111 inches, maximum one inch difference from side to side. OEM steel unaltered floor pan only. Inner fenders may not be removed. No gutting of structural panels. Hood and trunk lid/hatch must be securely fastened with a quick release style hood pin or straps only – No nuts & bolts will be allowed - remove all factory hood & trunk latches. All doors must be securely welded or bolted. All glass, exterior lights, chrome/plastic trim and hood insulation must be removed. Dash may be removed, but can remain. Maximum seven inch front and rear sun visors allowed. All windows should be open for better visibility, but opera windows may be closed with clear Lexan. Skirting is not allowed. Car number must be minimum four inches thick and 20 inches tall and clearly visible, on both sides, top and back of car, and front, if possible. Driver's name on roof required. Colors must be contrasting and readable. No reflective numbers. No wings, spoilers, or air deflecting devices. No hood scoops or holes in hood, all holes in hood must be filled in with metal. Headlight and Taillight holes must be covered if an aftermarket air intake is used.

7. VEHICLE IDENTIFICATION NUMBER (V.I.N.)

The V.I.N. must remain clearly visible and unaltered in at least one of the OEM locations. Any car missing the V.I.N. may occur up to a 300lb weight penalty. (The purpose of the VIN# is so each cars OEM body, suspension and various components can be verified to be OEM). TCMS highly recommends each racer maintain a copy of their vehicle repair manual.

8. BUMPERS/ RUB RAILS

Bumpers must be approved OEM in OEM location, welded or chained to frame. OEM bumper covers should remain. May have one horizontal bar - maximum 1.75 inch OD - tying front frame horns together ahead of radiator. One additional maximum one inch OD bar may be added for radiator protection; must be behind bumper, within confines of body, no wider than OEM frame horns. Maximum one inch wide by two inch tall steel or lexan rub rails allowed - bolted flush to body. No sharp edges allowed on bumpers, rub rails or bolts. No bars past outside edge of body other than rub rails.

9. ROLL CAGE

Four-point, full perimeter roll cage required. Must use round tubing, minimum 1.5 inch O.D. with 0.095 inch wall thickness tubing. Recommended: six-point cage with rear hoop having an "X" bracing configuration. Full halo overhead required. Recommended: front brace bar from main halo to front cowl. Forward brace bar allowed from main cage to front strut tower. Must have 1.25 inch minimum O.D. cross bar in top halo. Cage must be electric welded and attached using adequate plating (Recommended: minimum 0.250 inch). No iron, galvanized pipe or fittings, square tubing, brazing or soldering allowed. Maximum of any tubing size will be 1 3/4", round or square; there will be no use of channel. **The roll cage integrity and welds must be inspected and approved by the track officials.**

10. DOOR BARS

A minimum of three horizontal door bars on driver side and two horizontal door bars on passenger side. Both sides must have vertical bracing from top to bottom door bars. All tubing must be minimum 1.5 inch O.D. with 0.095 inch wall thickness. Steel door plates, 18 gauge or 0.049 inch minimum thickness, must be securely welded to outside of door bars on driver side. Plate must cover area from top door bar to frame and from rear down post to five inches in front of seat. Must be visible for inspection.

11. DRIVER COMPARTMENT

All Glass except for the windshield must be removed. Rolling down the windows is not accepted. The windshield may be removed. If windshield is removed, a minimum 3 windshield bars and protective screen mounted in front of driver. Aluminum high-back racing seat required. Must be securely mounted to roll cage using 0.375 inch bolts and follow the manufacturer's guidelines and usage. Driver must be sealed off from track, engine, transmission and fuel cell/tank. No mirrors. No gutting allowed except for roll/door bar clearance. All flammable material, radio and air bags must be removed. Front and rear

firewalls must remain and have no holes. Rear deck holes must be covered. Interior must remain open. NO Mirrors. All cars must start with a key, or use a push button/toggle switch hooked directly to the steering column wiring harness.

12. BATTERY/STARTER

One 12 volt battery only. Must be securely mounted with positive terminal covered. Battery must be in Marine type case if mounted in driver compartment. OEM starter only, must be in OEM location. Car must leave initial staging area on demand, unaided, or go to rear of that race. For remotely located batteries. Any positive battery wires that go through the driver's compartment, firewall, or that come in contact with the body must be covered/shielded from coming in contact with any metal surface. For remotely located batteries a battery shut off is required and should be within reach of the driver and safety crew and clearly marked.

...Any driver voluntarily stopping during competition requiring assistance to restart goes to rear of field. If stopped by officials and assistance is needed, driver gets spot back.

13. GAUGES/ELECTRONICS

No unapproved cameras, transmitting or listening devices (exception is one-way Race Receiver radio by officials). 12 volt ignition system only. No ignition boxes. No performance chips. All ignition components must be unaltered, OEM and match year, make and model of car used. Aftermarket analog tach, oil pressure and water temp gauges only. Vehicle computer (ECU) must match make of car and should be mounted in accessible location for inspection.

14. SUSPENSION AND STEERING

All components must be mounted in OEM location and mounts must be unaltered, OEM and match year, make/model of car used as indicated using VIN# decoding. Exception is: Recommended right/left rear safety hub (for example 1987-1995 Caravan hub assembly). Brace bar allowed between strut towers in front and rear. No other bracing allowed on front end. No weight jacks, modifications, racing components, aftermarket or homemade traction devices allowed. Rear wheels must track straight ahead and be in alignment with front wheels. **No more than 5 degrees camber on front axle wheels. No camber allowed on back axle. No rear steering allowed.** (The driver and car must be prepared to race in a clockwise **or** counter-clockwise direction.) Camber bolts will be allowed. No center steering. Quick release steering wheel is allowed, must maintain OEM column. No aftermarket remote reservoir power steering.

15. SPRINGS/SHOCKS/STRUTS

Must have working shocks on all four (4) corners of the car. All shocks and struts (including mounting bolts and location) must remain OEM, in OEM location. Spring rubbers allowed (if installed, spring rubbers must be equal on Right and Left side of axle). **No bump stops.**

17. BRAKES

No drilled, scalloped, or lightened rotors. No spring rotors. Must be steel, unaltered, OEM operative, four-wheel disc or drum brakes, and match year, make and model of car used. OEM master cylinder only, in OEM location. No brake shut off or bias adjuster. Steel brake lines only.

16. TIRES AND WHEELS

Radial tires only. Equal length wheel base, both sides. **Tires may not stick out farther than wheel well. 4-inch backspace. Wheel must not stick out past body. Minimum 35 PSI tire pressure on right side and minimum 20 PSI tire pressure on left side required. Maximum wheel width of 7 inches.** OEM DOT 13, 14, 15 or 16 inch diameter unaltered passenger street tires only. Minimum 60 series, M, N, P, Q, R, S, T, and H speed rated tires only. No racing, mud, snow or aggressive tread tires. No re-caps, softening, conditioning, grinding, sanding, siping or grooving allowed. The classification and approval of tires will be at the discretion of track officials. All decisions are final. **OEM Aluminum wheels permitted.** OEM steel wheels along with safety racing wheels will be permitted. Bead lock wheels permitted on front axle only. Reinforcing of OEM wheels recommended. Front tires and wheels must be the same series, size and offset (0.50-inch tolerance from axle to axle); rear tires and wheels must be the same series, size and offset; do not have to match front to rear. Any part of tire may not stick out more than 1.0" from the widest point of the stock OEM fender flares. No widening of fender flares from stock configuration. No wheel spacers or bleeder valves. Must use one-inch O.D. steel safety lug nuts on steel wheels.

18. EXHAUST

Exhaust manifold must be unaltered, OEM for year, make and model of car used (No aftermarket manifolds or headers). Smog pump, catalytic converter and air conditioning compressor may be removed. Exhaust must turn to point fumes away from driver. No exhaust in driver compartment. No dual exhaust systems.

There is to be only one final exhaust pipe, for 6 cylinders: a minimum of 24" of 1 ½" OD solid exhaust pipe is required at the end of exhaust. For 4 cylinders: a minimum of 24" of 2" OD solid exhaust pipe is required at the end of exhaust. Holes in exhaust pipe will not be allowed, no drilling of pipe and connections must be tight and leak free. Must be a sealed system. No exhaust pipe may be bigger than 2 ½".

19. FUEL SYSTEM

Must have complete, unaltered, OEM fuel system for year, make and model of car used. Gasoline only, maximum 93 octane. No E85. No performance additives. (The stock OEM fuel tank may remain, but it must have a metal shield covering it. It is also suggested that any fuel filters or fuel lines under the car be shielded.) Gas tank behind rear axle must be replaced with a gallon racing fuel cell (maximum ten gallons) and relocated to trunk area. TCMS highly recommends all cars use a racing fuel cell. Must mount with minimum two solid steel straps around entire cell, two inches wide and 0.125 inch thick. Metal firewall or cell cover must be between driver and cell. Fuel cell vent, including cap vent, must have check valve.

If running aftermarket fuel cell, a fuel shut off ball valve is required before fuel pump. The handle only must be mounted through the rear firewall. Valve and handle must be painted bright orange, securely mounted and easily accessible by safety crew. Inspector has final say on mounting of valve.

External electric fuel pump wired to the ignition switch allowed with aftermarket fuel cell. No cool cans. Fuel lines through driver compartment must be steel. Aftermarket fresh air pipe and air filter allowed, but no ram air.

20. TRANSMISSION

Must use OEM, unaltered transmission that came in year, make and model of car used. All forward and reverse gears must be operational. **No torque dividing final drive. No locked differentials. No limited slip differentials.** An external cooler is permitted (not to be located in driver compartment). Cooler lines must not run through driver compartment.

21. ENGINE COMPARTMENT

Engine and radiator must be the same make as car used (GM-GM Ford-Ford) and in OEM location for year, make and model of car used. May use solid engine mounts or safety chains. No accumulators/accusumps.

22. ENGINE

4 cylinder or 6 cylinder engines under 3.9L. All engine components must be unaltered OEM or OEM replacement. No turbo charged, No Multi Carburetors, super charged or rotary engines. Engines utilizing variable cam-timing (VVT) are allowed. No Mid or Rear Engine Cars, and No Cosworth Engines. Factory Stock Fuel injection only. No anti-freeze allowed.

23. DOMINATE CAR

In the event there is a dominate car, that car will be issued an intake restrictor. This will be determined by the feature wins, once a car wins 3 features in a season, that car will be issued an intake restrictor the next week upon arrival and must have the restrictor in place before the heat race that next week. Once a car is issued a restrictor, that car will be required to run the restrictor the remainder of the season.

A win in this instance is defined by finishing the race in first place, a win by a technicality does not count towards this rule. Once you are required to have a restrictor it can be inspected at any time and will be inspected after a feature race if you finish in the top 5. If you finish in the top 5 and your restrictor is not in place you will be automatically disqualified.

24. ADJUSTMENTS

This class is not intended to be overly complicated. This class was designed to take bone stock 4-cylinder and 6-cylinder street cars and turn them into a fun, safe, affordable, and competitive racecar. The rules are in place to keep it fun, safe, affordable, and competitive. If the rules need adjustment, changing, eliminated, or added, a class meeting may be arranged so that rule changes or adjustments can be made as needed. These rules will be strictly enforced however track officials will work with you by allowing time to make adjustments as needed on a case by case basis. **However; Any safety issue could result in you not being allowed to race that night.**

AMENDMENTS TO THESE RULES MAY BE MADE AT ANY TIME IF NECESSARY AT THE DISCRETION OF TRACK OFFICIALS TO BETTER THE FUTURE OF THE CLASS.

All cars in this class are subject to verification of stock or OE/OEM components by utilization of decoding their VIN. For any category that requires the car to have stock OE/OEM components said components must match what the manufacturer installed as indicated by the VIN i.e. the suspension must be the exact type as installed by the factory. Modifications or changes to categories that are required to meet OE/OEM requirements must be approved by the track officials. Ignoring or disregarding, these requirements may result in a car being disqualified from racing.