

Bomber Class (Updated March 31, 2008)

Kings Park Speedway

2008 Official Rules and Regulations

Bomber Class Rules (Update entered May 10th, 2008) **New items hi-lighted**

If you are interested in this class please contact us so we can inform you where and when the next meeting is to be held.

Note: Allowances will be made for existing cars. See Tech committee.

1. This class is designed to be an entry-level class and it is the intention of these rules to keep it an entry-level class.
2. Cars **MUST** be North American cars of all metal construction. Minimum wheelbase of 108"(106" allowed for Ford and Dodge). **Trucks and Station Wagons allowed. No convertibles.**
3. All parts **MUST** be in family line. Bodies **MUST** be original to frame with OEM mounting points. Body and frame mounts may not be modified in any way. Rubber mounts may be removed.
4. All bodies and body panels **MUST** meet factory dimensions and appearance for year and model. **Wheel wells may be radiused to a maximum of 5" from the outside circumference of the tire.** 100% of body parts **MUST** be run each race day. Stock appearing bumpers front and rear. Cars running single skin steel bumper can run .095" 1 3/4" pipe for mounting purposes. Rubber bumper covers can also run .095" pipe behind cover in place of original bumper. Pipe **MUST** be hidden behind bumper or cover, and not stick out past ends. Fender edges **MUST** be rolled inward resulting in no sharp edges.
5. Frames **MUST** be of stock dimensions to body. Sub-frame connectors and boxing of frames allowed. No modification(s) for power train or suspension clearance allowed. Sub-frame connectors may go through floorboards (floorboards must then be welded to connectors). Frame maybe re-enforced. Engine **MUST** be in stock location to frame for model and year of car.
6. Floorboards and front firewall **MUST** remain stock and intact in stock location. All holes in front & rear firewalls and floorboards **MUST** be covered with a minimum of 22-gauge steel. No sheet metal screws or galvanized material are to be used anywhere in the construction of car.
7. No interiors with sub-floors or cockpit style interiors.
8. Windshields **MUST** be full width safety glass or minimum 1/8" thick Lexan. All other glass **MUST** be removed. Glass windshields **MUST** have a minimum of 4 safety clips composed of at least 1/8" X 1" X 6" steel. Lexan **MUST** be securely fastened with 3/16" diameter pop rivets with 1/2" heads spaced a maximum of 8" apart. All windshields **MUST** have a minimum of 3 safety rods on the inside of the windshield, 1/2" diameter rods or 3/8" black pipe spaced a minimum of 10" apart. Drivers' side deflector is recommended, maximum length of a vertical line from the top of the windshield to the top of the door. Deflector **MUST** not flare outside the top edge of door. Lexan only.
9. All burnable, chrome strips, door handles, lights, trailer hitches, and white metal **MUST** be removed.
10. Doors must be securely welded or bolted shut. Front hood and trunk lids must be securely fastened and held shut (example: chained down, hood pins).
11. One steel fuel tank with a maximum capacity of 12 gallons must be securely fastened as far forward in the trunk as possible with 2 - 2" x 1/8" steel straps. Straps are to be bolted through the floor to 2 similar 2" by 1/8" straps with a minimum 3/8" bolts or redi-rod. No more than 12" of rubber fuel line in whole fuel system. Fuel cell recommended. Any variations are subject to approval of the technical committee.
12. Front and rear drive shaft hoops of 360 degrees mandatory. Front hoop to be 1 1/2" X 3/16" steel minimum, bolted to the floorboards with minimum grade 5 bolts and located within 12" of the front U-joint. Rear hoop recommended. **5/16 chain allowed.**
13. Battery must be located behind driver's seat and must be securely mounted with min. 3/8 inch rod. See fuel cell mounting requirements. Must be sealed in a suitable container (marine battery box) to prevent spillage in case of a rollover, or it can be located in the firewall sealed from the driver. Any deviations see Tech inspector. **Battery disconnect mandatory.**

14. Starter **MUST** be working at all times.
15. Lights: see general rules.
16. Seat belts must be 4-point minimum, 5-point recommended. Belts must be a minimum 2-inch width. No home made belts. Must be securely mounted to roll cage and seat frame.
17. Fire extinguisher: see general rules.
18. A web style window net, minimum 16 x 18 inches is mandatory. It must be a quick release type accessible from the exterior. No chicken wire nets or plastic snow fence allowed. Window net rods must be a minimum 3/8 inch steel rod fastened at the bottom and with release at the top.
19. No fuel, transmission or coolant lines allowed in the driver's compartment. Steel fuel line must be mounted in the stock location and be covered by a protective cover where it exits through the floor. See Tech committee for deviations.
20. Brake pedal and mounting point **MUST** be in original factory location for that make, model and year. Brake mechanisms on all 4 wheels **MUST** be working at all times and are subject to spot checks. No adjustable proportioning valve(s).
21. Unkempt cars may be disqualified.
22. Neutral, clutch or brake safety switch must be used in the starting system.
23. **Remember** this is an **entry-level class** whereby you can race and have fun without investing thousands of dollars in your car. The major emphasis is on fun and safety. The Technical committee and the Executive will administer this class with that in mind.
24. Car must weigh 3500 lbs with driver at all times. **No exceptions.** All ballast **MUST** be securely fastened and painted white with the car number on it. **Maximum left side weight is 55% with the driver in the car - measured at any time.**

SUSPENSION, WHEELS, & TIRES

1. **Front:** Any stock suspension parts in the family line may be used and **MUST** fit without any modifications to any parts. **MUST** have stock mounts in stock location. No modifying of stock mounts allowed. Slotting of camber adjusting holes is allowed on AMC, Chrysler, and Ford.
Rear: leaf spring car - stock front leaf mounts **MUST** be used. Mount to be in stock location with original stock floorboards.
Coil spring car: Stock mount to frame **MUST** be used. Drilling of holes is permitted. Stock differential brackets with adjustment holes allowed. Rear lower control arms **MUST** be stock to the chassis. Boxing of rear lower control arms is allowed.
All suspension mount bushings **MUST** be OEM rubber or urethane replacement. No adjustable ball joints allowed, only stock appearing greasable ball joints.
2. Working shock absorbers in stock location with stock mounts to chassis **MUST** be used. No adjustable shocks of any kind. Shock extensions allowed but **MUST** retain original mounting location and geometry. Shock extensions allowed but must retain stock geometry.
3. Differential housing **MUST** be in family line. No floaters. Stock gear ratios not exceeding 4.88 (all makes).
4. The minimum ride height of 4.0" is measured from the lowest point of the frame side rail with the driver in the car as raced.
5. Skid plates on all four corners with no square edges down. Must be the lowest point of the car with tired removed. No brake shoes allowed as skid plates.
6. All suspension must remain stock. No weight jacks, threaded spacers, heating springs or chaining down of suspension allowed. Camber adjustments optional on right front wheel. Can use stock type OEM springs only.
7. Tires **MUST** have a maximum width of P255. Shortest sidewall is 60 series. Radial or bias ply street tires allowed. No ground grip, studded, or recap tires. Only original equipment passenger type tires. No aftermarket racing tire(s) with or without D.O.T. numbers. No "V" or higher speed rated tires. **No chemical treatment of tires.**
8. Steel wheels or aftermarket wheels with a 3/16" center minimum, welded 360 degrees. Mandatory on passenger side. Maximum 8" width. No less than 2" back spacing - measured from back of rim to back of mounting surface.
9. **1" wheel nuts MANDATORY on all wheels.**
10. **Race springs allowed.**

ROLL CAGE

1. Minimum 4-point cage welded to frame, six point roll recommended. Cages made from 1 ½" schedule 40 pipe minimum. Kit cages constructed of 0.095", 1¾" pipe conforming to Super Late Model minimums strongly recommended. All joints in cage **MUST** be welded 360 degrees; joints in main cage must have gussets. No galvanized pipe threaded or cast joints. **MUST** have a dash bar and a cross bar behind the driver. Front hoop allowed with a maximum of 3 support bars per side. Minimum of 3 driver's door bars and 2 passenger side door bars **Note: If the car is to have a passenger that side must be constructed the same as driver's side. Also suggest 1/8" plate on drivers (passengers) side.** with 2 rows of vertical connecting bars on the drivers side extending to the frame or rocker panel. Unibody or X-framed cars with a roll cage mounted to the floorboards **MUST** have the roll cage welded to a 6" square X ¼" plate that is bolted through the floorboards to a like plate with 4-½" dia. bolts. **MUST** have a bar from the top of the door bar to the window pillar. Main cage halo dimensions: Maximum 12" from the right edge of stock roof skin. Maximum 3" down from roof skin. Modifying roof skin is not allowed. No "S" bends in door bars. Roll cage padding - see Safety Rules.
2. Seats must be minimum, high-backed bucket with head support. Approved racing seats are recommended. **Seat must be mounted to the roll cage.**
3. Only one front bar, maximum 2" o.d. and no wider than the frame rails, mounted behind bumper is allowed.
4. Radiator may be mounted in its basic location, no coolers of any kind in the driver's compartment. Overflow can minimum 1 litre securely mounted mandatory. No antifreeze allowed. Cars are allowed to have Enduro type radiator support.

ENGINE (ALSO SEE RULES 17, 18, & 19)

1. Engine and the manifolds must remain stock and be mounted in stock location with stock mounts for the make and model of the car. Engine size is not controlled. Engine must be chained down on both sides. **No stroker motors allowed.**
2. Any single stock carburetor, two or four barrel, will be accepted as long as that carburetor was available as a factory production part on the engine being used. With the exception of choke plate removal, no other work is permitted on the carburetor.
3. Stock style all metal air cleaner. Can be open 360 degrees. Cold air induction is permitted.
4. **Distributor:** Only stock distributor and stock coil allowed. No dual point systems. Electronic ignition may be used only if stock in that make. No external modules (except Ford) or external modifications. No modifications to stock mounting of module.
5. **Intake manifold:** Only stock OEM cast iron intakes allowed. No grinding or coating of any kind is permitted, internally or externally.
6. **Water pump:** Stock OEM cast iron water pumps only for GM engines. Ford and Chrysler engines may use stock OEM aluminum water pumps.
7. **Oil pan:** Any steel oil pan that fits with no modifications to the frame. No oil pan gates or traps allowed. Windage tray may be used. Oil filter **MUST** attach directly to block. **Gates & traps allowed.**
8. **Fuel pump:** Stock mechanical pump only. Absolutely no electric fuel pumps. No glass or plastic fuel filters allowed. No "Cool Cans". **The only fuel allowed is gas that is available at local consumer (NO commercial) outlets. NO ADDITIVES, NO OXYGENATION, NO AVIATION FUEL, NO RACE FUEL.**
9. **Transmission:** Any stock automatic transmission with mating stock converter or 3 or 4 speed manual transmission. All transmission must have all gears working. Transmission adapter plates are not permitted. Stock clutch disk, pressure plate and flywheel. 10" minimum diameter clutch disk. Aluminum clutch parts and aluminum flywheels are not permitted. A scatter shield or minimum 1/8" thick steel plate, 180-degree safety shield mounted over the bell housing bolted to the floor is mandatory for manual transmissions.
10. **Exhaust:** Mufflers optional. Stock OEM production cast iron manifolds only. No modifications allowed. No adapter plates. Maximum exhaust pipe size is 2 ½"o.d. from the manifold to the muffler and 2 ½" max o.d. from the muffler to the exit. 1 "H" pipe is allowed. Exhaust may exit under car, below and behind driver. A maximum of 8" of flex pipe allowed per side close to exhaust manifolds. Muffler part #24203 Walker or #4018 Silver Bullet. **MUST MEET 100 DECIBAL RULE**
11. **Plastic fans** are recommended - if a steel fan is used a steel safety ring approved by the technical inspector must be used. Stock OEM electric fans allowed. No aftermarket "race fans".
12. **Radiator**-aluminum radiators allowed.

13. **Car ID** number: Either use numbers as described in the general rules or an easily recognized theme car
14. **Upper control arm**-minimal cutting of passenger upper control arm to access shock absorber mounting nut allowed. MUST PASS TECH APPROVAL
15. **Side body protection** bars: no more than 1" diameter-to be mounted on quick release pins maximum two mounting points to roll cage. Not to extend any further than rear of front wheel well and no further back than the front of the rear wheel well.
16. **Coil Springs**: a spacer cup that holds coil securely in place in stock location (to prevent spring from popping out and leaving car)
17. **Cylinder block** MUST be a car iron OEM block with the exception of permissible overbore. An OEM lifter bore must be maintained. Deburring of block and parts permitted. Balancing Optional. Block must maintain +0.015" deck height (GM). Deburring of stock rods is permissible. Stock rod length to the OEM block that is being used. Crankshaft MUST be OEM and harmonic Balancers MUST be OEM.
18. **Pistons** can be flat top maximum, weighing a minimum of 490 grams each less the wristpin. All Pistons MUST have two compression rings and an oil ring.
19. **Cylinder heads**: Only stock OEM cast iron heads permitted. Absolutely no deburring, grinding, or polishing of intake or exhaust ports permitted. Chevrolet engines are restricted to 1.94" intake valve diameter and 1.5" exhaust valve diameter. (All other engines MUST be stock for year and engine model used). Chevrolet engines with a displacement of 337 cu. in. or less are restricted to a maximum 68cc chamber volume. 350 cu.in. Chevrolet is restricted to a maximum of 73cc chamber volume. Guide plates are permitted. The maximum Chevrolet valve spring diameter is 1.266". Composition head gaskets of no less than .039" compressed thickness MUST be used on all cylinder heads. Ford and Chrysler heads are restricted to a minimum 64cc chamber volume.
20. **Lap time rule removed**