

2024 Bomber Rules for
Murray County Speedway
Worthington Speedway
Redwood Falls Speedway

Final Version January 14, 2024

General Rules

Any car that starts or moves up to a sanction status cannot run in bomber class in same calendar year. Will follow IMCA line-up procedures using 3-week event average. Race Receiver is required and mandatory. Must be in working condition. MY LAPS Transponder required mounting location right side fire wall, within 18" of track surface with clear view.

All engines MUST use unaltered #8727CT Rev control. Engine option 1 & 2 5500 rpm may be changed per track, changes will be posted at line up). Engine option 3 5000 rpm may be changed per track. changes will be posted at line up). Must be at least 14 years of age to race with signed and notarized consent form. Amendments may be made to these rules if officials see fit at any time. The main goal of this class is to be safe and HAVE FUN!

Eligible Models & Body

1. Passenger Automobile with factory steel roof only. No station wagons, convertibles, rear or mid-engine cars will be allowed.
2. All bodies must be steel and strictly stock per OEM, gutting of doors, quarters, roof allowed. All hoods and trunks must be securely fastened.
3. No aluminum hoods and trunks unless OEM. Hoods should have no holes or air scoops. Hood must be separate from fenders; hood may be gutted rear of hood must be sealed off from driver.
4. OEM steel bumpers must be in stock location. All bumpers must be capped to the body. The reinforcement of any bumper is not allowed. Compression bumpers must be welded.
5. Damaged bumpers may be replaced with 2x4 inch square tubing no thicker than 0.125 inches and no wider than body, must be capped. Bumper must have one (1) inch inspection hole on both ends.
Bumper must be mounted in stock location and stock height.
6. Chains are required on bumpers, front and rear, for tow truck to attach to.
7. No moving or changing of windshield post or quarter posts. No altering or channeling of the body is allowed. Nothing allowed to alter the stock appearance such as but not limited to wings, spoilers, skirts, or air scoops. Six (6) inch maximum sun visor is allowed.
8. Car numbers must be 24 inches tall and 3 inches thick on sides of car.
9. All chrome, glass, upholstery, front and rear seats, lights, and mirrors must be removed.

10. All doors must be secured shut.
11. Full floorboards must remain stock location. Aftermarket floor boards allowed with center tunnel, 18-gauge .049 tin minimum aftermarket tin thickness
12. Trunk floor maybe removed to accommodate fuel cell and inspection of upper control arms
13. A full visible metal firewall must completely separate the driver from the fuel cell and trunk compartment OEM or aftermarket
14. Full OEM or aftermarket firewall must completely separate the driver from the engine compartment and must remain in stock location, 18-gauge .049 tin minimum aftermarket tin thickness
15. No expendable type foam can be used on any part of the car.
16. Front fender well may be removed.
17. All Stock gas tanks must be removed. Racing fuel cell required, must be in minimum 20-gauge steel container. Must be securely fastened in trunk above level of OEM trunk floor, behind rear tires, no further forward than factory seam where rear frame rail can be replaced, with minimum one-inch square tubing or two solid steel straps around entire cell, two inches wide and .125 inch thick. No fuel cells allowed over rear end housing. Metal firewall must be between driver and fuel cell. All cell mounts must be steel, securely welded to frame/cage
18. Check valve or roll over valve and flap required.
19. Brakes on all four wheels are required and they must work. No brake shut-off devices are allowed. May have rear disk brakes, no aftermarket brake pedal assembly allowed.
20. No computers or data recorders unless OEM.
21. If fuel line runs through drivers compartment it must be in a continuous solid metal pipe or metal conduit securely attached from the front firewall to the rear firewall.
22. Rub rail maximum 1 inch thick and 2 inches tall, mild steel only. No grater blades. Ends must be tapered. No sharp edges or they will have to be removed. Rub rail maximum material thickness of 0.125 inches.
23. Bodies can be repaired with OEM thickness of material only.

Drivers Equipment

1. Five-point safety belt. Belts should be anchored to the roll cage only, not to floor. (Recommended: Safety belts no more than two years old)
2. Full face helmets only. Must be SNELL rated SA2005 or newer. (recommend getting SA2020)
3. Fire suit, neck brace or Hans device (Must have side head pieces on seat), fire retardant gloves and shoes are required.
4. Roll cage padding is recommended in driver's compartment.
5. Driver's window net mounted to roll cage is mandatory. Three (3) 1/4 inch windshield bars in front of driver are required.
6. Detachable steering wheel is optional.
7. Steering column must be double knuckled or collapsible shaft OEM. No welding of collapsible shaft.

8. All cars must have aluminum high back racing seat that is fastened to the roll cage. Bolting to the floor is NOT ALLOWED. Seat must be no farther back than "B" pillar, unless it is a four-door car.
9. Kill switch must be within easy reach of driver and safety personal, clearly marked on and off.

Suspension/Steering

1. Must be OEM suspension. No altering or changing suspension or steering. All components must match frame and be in original location. (May use IMCA approved upper tubular arms).
2. Shocks must be stock appearing, mounted in stock location, non-rebuild able shocks only. Shocks must match side to side
3. No spacers or chains allowed on suspension.
4. Stock unaltered springs pockets in OEM location allowed. No spacers and screw jacks
5. Springs must match side to side. (Length, diameter, coils and compression rates)
6. All steering parts must be OEM parts and location
7. No steering quickners (minimum 2.5 turns stop to stop)

Drivetrain

1. OEM automatic transmission with OEM working torque converter. Transmission must have ALL forward gears and reverse.
2. Any external auxiliary transmission coolers must be mounted in close proximity to the radiator.
3. OEM manual transmissions must have all forward gears and reverse. Transmission minimum 10 1/2 inch diameter single disc clutch.
4. OEM passenger car rear end only. Ford 9-inch floater rear ends allowed. Must be mounted like stock rear end for that make and model of car.
5. No maximum rear end gear ratio.
6. Drive shaft must be steel and painted white. 360-degree driveshaft loop required and must be constructed of minimum 0.25 inch by two-inch solid steel, or one inch tubing, mounted six inches back from front U-joint.

Wheels and Tires

1. Unaltered OEM 205/75, or 205/70, 14 inch or 15-inch passenger tire only. All four tires and wheels must be same size.
2. No double side wall tires allowed. No doubling of tires.

3. Passenger car tires only. Absolutely no mud, racing, snow, fancy, exotic or trick gumball tires allowed.
No trailer tires allowed. No winter or winter force style tires allowed.
4. 1/2 inch wheel studs are recommended. 1 inch lug nuts required on any steel wheel.
5. Maximum 15 x 7-inch wheel only. No bead locking devices or screws allowed. 3 or 4-inch offsets only or OEM. No wheel spacers.
6. Racing or spoke wheel allowed.

Battery

1. Only one 12-volt battery per car.
2. Battery must be securely mounted in the trunk area. It must be enclosed in a marine type box or metal box or be mounted directly to frame. Positive post must be covered.

Roll Cage

(older cages built 1.5" pipe please call promoter for inspection)

1. Main cage must consist of continuous hoops, minimum 1.75 O.D. tubing, with wall thickness of at least 0.095 inches. Tubing recommended low carbon or mild steel. Four-post roll cage required, front down bars and rear hoop must be welded to OEM frame. Unibody cars are required to weld cage to 6 x 6 steel plates to floor. Driver's head must not protrude outside with helmet on. Rear hoop must have "X" brace, consisting of one full horizontal and one full diagonal bar, minimum 1.25 O.D. with 0.083-inch wall thickness. Front down bars must be tied together; Passenger side front down bars must be maximum 11 inches in from top of door. Must be minimum 40 inches between outside edge of front and rear down bars at top of door panel. Maximum 41 inches from top center of windshield to front edge of rear hoop; maximum 13 inches to front edge of top halo. Top halo must be minimum 40 inches across, outside to outside. Rear hoop may be maximum 12 inches in from bottom of opera window. Minimum one cross bar in top halo. Rear kickers (down bars) must be minimum 1.25-inch O.D. tubing 0.083-inch wall thickness.
2. All door bars and uprights must be minimum 1.75-inch O.D. with 0.095-inch wall thickness. Minimum three door bars, both sides, parallel to ground, and perpendicular to driver. Minimum four uprights tied from frame to top door bar on driver's side, and minimum three uprights on passenger side. Steel door plate, 18 gauge or 0.049-inch minimum thickness, must be securely welded to outside of door bars on drivers' side. Plate must cover area from top of door bar to rocker panel and from rear down post to five inches in front of seat. Plate must be visible for inspection.
3. Front hoops allowed in engine compartment. Two bars can be used to protect the radiator. Bars must be behind bumper, no wider than frame rails. Maximum 2-inch O.D. tubing. Factory radiator support may be used. No radiator support bars farther back than front of upper A-arms.
4. No square tubing or galvanized pipe is allowed in the making of roll cage.
5. Fuel cell protection bar strongly recommended must be mounted from frame rail to frame rail no higher than the fuel cell.

6. "X" bracing frame is optional, stock transmission cross member required if frame is not "X" braced. No other reinforcing of frame is allowed.

Engine and Carburetor

FUEL: Gasoline only. Racing fuel allowed. No E85. No performance enhancing or scented additives.

There shall be (3) engine options. You must pick one and follow all the rules of that option.

Exhaust for all 3 options must use 2" OD All exhaust must extend below and past firewall and turn toward ground. Must remain dual exhaust.

Option #1

1. OEM engine for that make and model of car. VIN will be used to validate that is how car came out of

the factory. No alterations to intake, exhaust, or ignition system. All components used must be OEM or

OEM equivalent replacement for that car.

2. Unaltered bore, stroke and camshaft specs must be maintained.

3. Naturally aspirated engines only no turbos or superchargers engines will be allowed.

4. Must maintain factory fuel delivery. The ONLY exception to this is; 4-barrel carburetor can be removed and replaced by a 2-barrel carburetor of the same make (GM to GM, Ford to Ford, etc.). Must maintain OEM intake manifold. Adapter may be used no more than one (1) inch rise including any gaskets.

5. Must be in original mounts.

6. Simply NO modifications.

7. Four cylinder, V6, must run the OEM engine option.

Option #2

1. Any American make engine allowed. OEM steel passenger production vehicle block only. No GM Bowtie,

Ford SVO, or Chrysler W components allowed. Gm approved block numbers are: 10105123, 10066034, 3892657, 3914660, 3914678, 3932388, 3932386, 3956618, 3970000, 3970006, 3970010, 3970014, 10066033, 10066036, 10243880, 14010207, 14010209, 14010287, 14016376, 14016379, 14054727, 14088528, 14088548, 14088552, 1093638, 14101148.

2. Stroke must match block. No 400 or larger cubic inch parts allowed. Maximum 361 cubic inch (GM); 363 (Ford); 370 (Chrysler).

3. Maximum compression ratio is nine to one (9:1), NO TOLERANCE. Compression ratio checked using Whistler and cubic inches checked using pump, OR by visual inspection of part and/or casting numbers, pistons etc.

4. Flat top or dished pistons only, no gas ported pistons. OEM or OEM appearing replacement steel crankshaft only – cannot be lightened. No aeroing, bullnose, knife edge, undercut or drilling of second or third rod throws.

5. OEM or OEM cast appearing steel rods only – GM 5.7-inch, 6 inch or GM Vortec rod part number 10108688 allowed.

6. Cap screws allowed. No splayed main caps.

7. Conventional flat tappet cam and lifters or hydraulic only, No roller cams. Cannot alter lifter bores.

8. OEM firing order cannot be changed (GM 1-8-4-3-6-5-7-2)

9. Wet sump oiling system only. Steel oil pans only. Racing oil pans allowed. Mandatory one inch inspection holes in all pans- no obstruction to crank and rods.

10. Steel Heads only. No Vortec heads allowed. Must be unaltered.

11. No roller tip rockers arms allowed. GM – 1.25-inch maximum O.D. valve spring. No beehive valve

springs allowed.

12. GM to GM, Ford to Ford, Chrysler to Chrysler.

13. Intakes must be stamped with OEM part number. No aftermarket intakes allowed.

14. Two (2) barrel carburetor only. No Holleys on GM. Adapter may be used on 4-barrel intakes.

Maximum

rise one (1) inch including gaskets. No porting and polishing of engine parts. Rochester carburetor will

be checked with IMCA tools

16. Stock distributor cap, stock module.

17. No headers, OEM Cast iron manifold only. Option 3

1. 602 IMCA crate engine unaltered with IMCA seals.

2. Must run unaltered two-barrel Rochester carburetor. Booster may be machined to maximum 0.25-inch

ID, 1.375-inch venturi ID and 1.6875-inch throttle bore I.D. Minimum booster height 0.625 inch.

Must remove carburetor choke plate.

If you have any questions, please contact: Trey Davis

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