

2025 WVSO MINI BOMBER RULES



Subject to change at any point
No tolerance will be given to
those who do not compete to the spirit of this class

1. BODY/CHASSIS

- a. Any four-cylinder passenger car that came with seating capacity for at least 4 persons - sedan, coupe or hatchback ONLY. Max will base 107. No All-wheel drives. No trucks
 - b. Remove the carpet headliner, door panels, and all mirrors, except outside driver side mirrors and all seats except driver's seat. Remove head and tail light glass and all window glass except windshield. The factory dash is optional. If the dash is removed, it must be replaced with an aftermarket dash. Aftermarket nose is okay. All floor pans MUST be intact. NO GUTTING ALLOWED. Can gut hood and trunk framing but must have a hood and trunk. Can cut out trunk for fuel cell. MUST have a sealed firewall front and rear. Radiator must be mounted in stock location. Fuel cell must be in trunk and have a 20 gauge steel cover. Battery must be behind the driver in a sealed box. Windshield can be lexan or glass. All other glass must be removed. *There must be an open space at the top of the windshield for the class sponsor.
2. ROLL CAGE: Roll cages are required. Six (6) point roll cage of 1 3/4 " tube steel x .095 wall seamless must be welded & secured to floor pan or frame. Must have 3 door bars on the driver's side and 2 bars on the passenger side, rear bars are allowed into the trunk area. Front hoop okay, but must keep all stock panels in place. Nerf bars recommended - must be attached to cage and no sharp edges. MUST have race padding on all bars that your hands and head can reach. MUST have a window net.

3. ENGINE:

- a. Head
- b. MUST be stock OEM casting with stock valve size. Can be milled, cast-iron .080 aluminum .040 MAX. NO porting. NO polishing. NO deburring. NO adjustable timing gear. NO aluminum timing gear.
- c. CAM

- .510 lift max. Style per make and model. No relocating cam dowel NO rollers
- d. LIFTER:
Hydraulic lifter per make. Solid lifter per make. Hydraulic lifters MUST de-pump full stroke. NO relocating cam dowel. NO rollers
 - e. BLOCKS:
MUST be stock OEM. Must match make and model, NO aluminum aftermarket. No V6. No S2000
 - f. INTAKE MANIFOLD:
MUST be stock OEM. NO porting. NO polishing. NO deburring.
 - g. EXHAUST MANIFOLD:
MUST be stock OEM or header NO greater than two and half inches (2.5") exit. NO porting. NO polishing.
ROTATING
Rods stock OEM rods. Aftermarket pistons ok. Stock OEM crank per engine.
4. OIL SYSTEM
Stock OEM oil system.
 5. RADIATOR
MUST be in stock location and can be aluminum.
 6. CARBURETOR
MUST be stock Autolite, Motorcraft, Holley 350/500 with choke horn and with part number in place. Fuel injection ok. NO RACING CARBURETORS- VDL, DORTON, WILLY, ETC. NO SCREW IN AIR BLEED. MUST BE TOOL LEGAL.
 7. CARBURETOR SPACER
Adapter to Holley ok. NO CNC machined or custom machined spacer, one and one half inch (1 1/2") MAX.
 8. AIR FILTER: Can be aftermarket. MUST fit under the hood.
 9. CLUTCH
Single disc OEM style, NO racing clutches. lightweight steel flywheel allowed.
NO aluminum flywheels
 10. TRANSMISSION: MUST be stock OEM.

11. REAR END: MUST be stock OEM per model. NO lockers. NO welded. NO posi traction. NO locked trans-axes.

12. DRIVELINE: MUST be stock steal. MUST have loop twelve inches (12") back from transmission.

13. BRAKES: Must have stock OEM brakes and all four (4) must work. NO brake bias adjuster. NO aluminum calipers.

14. WEIGHT

Single overhead cam; 2 valves per cylinder 2100cc or less

Weight: 2300 min

Left: 54% max

Rear: 44% max

Single overhead cam; 2 valves per cylinder 2150cc or more

Weight: 2400 min

Left: 54% max

Rear: 44% max

Dual overhead cam; MORE than two (2) valves per cylinder

Weight: 2500 min

Left: 54% max

Rear: 44% max

Dual overhead cam; front wheel drive.

Fuel Injection okay with stock injectors.

Weight: 2400 min

Left: 54% max

Rear: 44% max

Single overhead cam; UNDER 1800cc front wheel drive

Weight: 2100 min

Left: 54% max

Rear: 44% max

Single overhead cam; OVER 1800cc up to 2000cc front wheel drive

Weight: 2300 min

Left: 54% max

Rear: 44% max

15. SHOCKS

MUST be stock OEM per make and model. NO air shocks. NO adjustable shock/strut tower; NO adjustable plates. NO Coil overs, Racing springs are allowed

16. RIDE HEIGHT

Five inch (5") minimum

17. SWAY BAR All Thread OK. Must have stock pivot points with stock hard wear

18. CONTROL ARMS

MUST be steel. Can be adjustable

19. TRAILING ARM

MUST be stock OEM with stock mounting points.

20. CAMBER

MUST be no more than one and one quarter inch (1 ¼") measured from top of wheel.

21. WEIGHT JACK

NO weight jacks. Adjustable spring cups ok.

22. IGNITION

MUST be stock OEM per make and model. NO aftermarket, no crank triggers.

23. FUEL TANK

Fuel cell recommended. MUST be located in trunk and sealed off from driver. MUST be covered in twenty (20) gauge steel. Fuel line MUST be in conduit if located in driver's compartment. NO "G" cans. NO plastic.

24. FUEL PUMP

Mechanical or electric ok. If electric, it MUST be located in trunk.

25. WHEELS

Steel wheels only. Seven inch (7") wide maximum. Racing wheels recommended. NO aluminum. NO spacers.

26. TIRES: MUST be a 400 tread-wear or greater. MUST be no wider than 205 and no taller than 70 series. MUST be DOT approved. NO recaps. NO racing tires. NO softening.

27. TRANSPONDER

Location: Right rear frame rail; fifteen inches (15") behind center of rear-end

28. Exhaust

Mufflers are mandatory, must be securely fastened and in working order. Loud mufflers will not be tolerated, 95 DB @ 100'.

29. Safety

A fully charged dry chemical or halon fire extinguisher must be mounted inside the car within reach of the driver.

MUST have three inch (3") wide shoulder belt. ALL belts must be five (5) years or newer. MUST have two inch (2") sub belt. MUST have master electrical shut off. Drivers required to have SA Helmet; NO motorcycle helmets. Head and neck restraint required. Driver's suit must be clean with no visible holes. Racing gloves/shoes must be worn at all times. Holes around shifter must be covered. Seats must be aluminum. 2" belt okay with HANS.

Additional bars may be required by Technical Director or Promoter after initial inspection for safety.

Cars running electric fuel pumps MUST mount a clearly marked on/off switch within 6" of the drivers door or mounted on passenger seat bar. Driver must be able to reach the switch when securely fastened with seat belts.

WVSO Technical Director must be able to reach the switch from standing outside the driver's window. A brightly painted, solid square of at least 4" square must surround the switch.

Drivers required to have SA Helmet and fire resistant gloves. Safety Approved Racing seats required and must be securely mounted in an approved manner. Roll bar padding is required and must be around all bars within driver's reach. Five racing seat belts required and must be mounted acceptable to the WVSO Technical Director. Window net is required and must be mounted in an acceptable manner.

Fuel Tank: If a stock fuel tank is ahead of the rear axle, it can remain in place or a fuel cell may be put in. If the fuel tank is behind the rear axle it must be replaced by an approved Fuel Cell mounted in the trunk. A complete rear fire wall is required between the drivers compartment and the trunk if a fuel cell is installed.

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Battery must be relocated to behind the driver's seat, in a securely fastened, covered battery box mounted to the floor pan.

Technology

Other than transponders, race cars will not be permitted to carry any onboard computers, micro controlled processors, recording devices(except for Go-Pro type cameras), cell phones, electronic memory chips, or traction control devices. Digital readout gauges are ok.

Top of windshield is reserved for Track sponsor logo – no other decals allowed on windshield. You will receive one Sponsor decal for free at the beginning of the season. There will be a \$15 replacement fee for each new one. If you don't run the Window decal you will not receive points or pay for that weeks event.

Any part or equipment found during an inspection or any other time, that does not meet applicable WVSO standards must be surrendered to WVSO Tech Officials at that time, and will not be returned. Failing to not give up the part or parts will result in a fine, and/or loss of points and/or suspension. WVSO Officials reserve the right to make final decisions in the interpretation of any rules or race procedures at any time. No equipment will be considered as having been approved by reason of passing through inspection, WVSO Officials recommend that you carefully study the WVSO rulebook in order to be familiar with all aspects of racing. If you are considering apart for modification or procedure not covered in these rules, contact WVSO Tech Official before proceeding with any purchases or modifications.

If you have any questions regarding the rules set forth, contact the WVSO Tech Official. In keeping with WVSO's commitment to maintaining proper balance in the competition arena, it may be necessary for WVSO to make rule changes and/or rule modifications from time to time. Such changes are designed to enhance close competition.

WVSO's goal of a full starting field of various makes in each race, that are equally matched as possible is certainly in the best overall interest of the sport.

EIRI: (Except in rare instances) Decisions of WVSO Officials are final and binding without exception