



Alien Motor Speedway 2022 Bomber Rules

The bomber/cruiser Division is meant to be a fun, affordable & safe entry level racing class. These rules are designed to encourage a safe, competitive class while keeping a limit on spending. In no way will the rules be interpreted to allow a car that is technically superior to dominate the class or to be constructed in an unsafe fashion that poses a danger to the operator or other competitors. Any driver found outside the parameters or spirit of these rules will be sternly dealt with and faces fines, disqualifications and possible disbarment.

Entry Level Class- If any car/driver is to show dominance over the rest, track will take action and resolve the issue with the car/driver and could potentially be asked to race up in higher up class. No driver that is competing in a higher class outside the bomber class will be allowed to race down into the bomber class

Interpretation of any or all of the rules is at the sole discretion of Alien Motor Speedway and its tech personnel. Let's keep it in the spirit of what these rules are designed for. Thank you in advance for your cooperation! DRIVERS: The minimum age for a driver is 16, unless approved by Jeremy Pipes. All required documents, including minor waiver, must also be completed. Passengers, if applicable, must be minimum age of 15, with properly signed documents.

Courtesy Rule: Under the Track Discretion Any car with "minor" rule infraction will be allowed to race that night's event but infraction must be determined and fixed before the next scheduled race. Cars with infractions are subject to a penalty, starting position and or docked a certain amount of positions from their finishing position for the night.

1. Engine

- 1.1.** All motors and carburetors will remain factory stock. All cars are permitted to be 4, 6, or 8-cylinder engines, including big block. Performance enhancing components are not

allowed. Engine must be vacuum-pumped and measure no less than 14 inches of vacuum at 1200 rpm. Must have a 3/16-inch port in the intake manifold to hook up vacuum gauge.

- 1.2. All 8-cylinder cars 360ci or less must have a 6000 rev limiter and 361ci or more must have a 5800 rev limiter and must weigh 3000 lbs, including driver after race. Must run factory cylinder heads (no aftermarket race heads allowed). Must run flat top or dish pistons. Must have a cranking compression no higher than 150. Must run factory style stamp steel rocker arms (no roller tip or aluminum rockers allowed).
- 1.3. All 6-cylinder cars must have a 5800 rev limiting device and must weigh 2800 lbs, including driver after race. Must run factory cylinder heads (no aftermarket race heads allowed). Must run flat top or dish pistons. Must have a cranking compression no higher than 160. Must run stock type rocker arms (no roller tip or aluminum rockers allowed).
- 1.4. Any safely built 4-cylinder car is welcome. 2500 weight & 5600 rpm rev limiting rule.
- 1.5. All cars running a carburetor must have the OEM Factory 2 barrel, an untouched 4412 or a stock Rochester 2 barrel. Ultra XP carburetors are not allowed. Aluminum intake is ok (recommended to use USRA-legal intake). No high-rise Victor or equivalent allowed.
- 1.6. Turbos, Superchargers, Etc. not allowed.
- 1.7. No Angle Plug Heads, No aluminum Heads, No Camel Hump Heads. These are not allowed.
- 1.8. All 4 Cylinder Cars refer to Engine specs under USRA Tuner Rules, Must meet these rules.

1.9. Exhaust System & Mufflers:

- 1.9.1. Must be cast iron exhaust Manifolds.
- 1.9.2. Headers are not allowed!!
- 1.9.3. Exhaust must extend 3 feet long under the car.
- 1.9.4. Mufflers are mandatory for all cars in all classes.

2. Transmissmion

- 2.1. Must be OE Automatic with torque converter or OE Single Disc Clutch on Manual Transmission Only. Lightened Flex Plates are not allowed.
- 2.2. All OE Forward and reverse gears must be operational.
- 2.3. Automatic transmissions must have approved scatter shield or blanket. Scatter shield may be constructed of one-eighth (1/8) inch by three (3) inch steel, two-hundred seventy (270) degrees around flex plate or flywheel. Manual transmissions must have an explosion-proof SFI-approved bell housing.
- 2.4. Flywheels must be stock OE and weigh a minimum of sixteen (16) pounds. Clutch must be steel and a minimum ten and one-half (10.5) inches in outside diameter and a full 360

degrees. Lightened flywheels are not allowed. Aluminum flywheels and pressure plates are not allowed.

2.5. Direct drives are not allowed. Mini Clutches are not allowed.

2.6. Transmission Coolers are permitted but must be mounted in engine compartment.

2.7. Torque convertor must be made of steel.

3. REAR-END

3.1. OE or OE stock replacement Rearends. Truck rear-ends are not allowed. Ford nine-inch rear-ends, and floater rear-ends are permitted but must be mounted like a stock rear-end.

3.2. Rear-end may be welded or a mini spool may be used.

3.3. Full Spools are not allowed.

3.4. All gears must maintain Factory specs and weights.

3.5. Upper trailer arm brackets must follow suspension bushing rule and remain level side to side. Upper and lower control arms must be factory specs, no length adjusting.

3.6. Center of rear lower control arm bolt holes may be no lower than three (3) inches from bottom of axle housing and the same on both left and right. Single hole control arm brackets only, NO Multihole Brackets.

3.7. Rear spring perches must be the same on both sides and must be centered on the rear end housing.

4. Braking System

4.1. Must have OEM calipers and OEM rotors on front and OEM Drums or OEM disc brakes on rear. OE drums are permitted on nine-inch Ford rear ends. All components must be made of steel.

4.2. Brake shut-offs and/or bias adjusters are not allowed. No electronic brake actuators allowed. Anti-lock braking systems are not allowed.

4.3. Aftermarket brake pedal assemblies are allowed.

5. Tires & Wheels

5.1. Wheels:

5.1.1. May be a maximum of eight (8) inches in width.

5.1.2. Wheel spacers are permitted but must be made of aluminum.

5.1.3. Offset wheels are permitted. 2", 3" or 4" offsets with 7" wheels or 3" or 4" offsets with 8" wheels.

5.1.4. A steel bead lock is permitted on the right rear only.

5.1.5. Mud plug may be used on right side wheels only.

5.2. Tires:

- 5.2.1. Stock OEM 205, 215, 225/70 or 75 series 14" or 15" passenger tires are permitted. American Racer G60-15 KK704 or Hoosier G60 racing tires are permitted.
- 5.2.2. Mud, Ice/Snow, Exotic Trick gumball tires are not allowed.
- 5.2.3. Grooving and/or siping is permitted.
- 5.2.4. Softening is not allowed.

6. Electrical System

- 6.1. Battery boxes must be securely fastened.
- 6.2. All battery post must be securely covered.
- 6.3. All ignition parts must remain out of the reach of the driver.
- 6.4. Kill switch is required and must be easy reach of the driver and clearly marked "OFF" and "ON"
- 6.5. Must utilize OEM distributor and ignition. GM external coils are not allowed on v8 & v6 cars but are allowed on 4 cylinder cars.
- 6.6. Digital gauges are not allowed. Except for memory recall tachometer.
- 6.7. All v8 cars 360ci or less must Utilize rev limiter box with 6000 chip.
- 6.8. All v8 cars 361ci or more must Utilize rev limiter box with 5800 chip.
- 6.9. All v6 cars must Utilize rev limiter box with 5800 chip.
- 6.10. All 4 cylinder cars must Utilize rev limiter box with 5600 chip.
- 6.11. Traction Control devices of any kind are not allowed.
- 6.12. Approved Rev Limiter Boxes are:
 - 6.12.1. Unaltered MSD 8728 or 8727CT rev-control box Only.
- 6.13. All Rev Limiter Chip amounts are subject to change.

7. Suspension

- 7.1. Front and Rear suspension must be stock unaltered OEM for that make and model of frame, ball joints, spindles and all components. Alterations to any part of the suspension and/or frame is not allowed. Aftermarket ball joints are permitted. Rebuildable ball joints are permitted.
- 7.2. No aluminum or titanium components allowed.
- 7.3. All suspension bushings must remain OEM rubber type bushings with OEM inner steel sleeve attached to the OEM rubber. No forward or backward movement allowed.
- 7.4. Non-adjustable tubular aftermarket upper A-frames are permitted but must match factory specs for the frame being used. Factory spec upper control arms with lengths of eight (8) inches or eight and one-half (8.5) inches are permitted.
- 7.5. Shock mounts must be the same on both sides of the rear end and within two (2) inches of center of trailing arm bolt (up & down, left to right).
- 7.6. Racing shocks & springs are permitted. Threaded-body and/or bulb-type shocks are not allowed. One (1) steel non-adjustable OEM mount shock in OEM location.

- 7.7. Center of rear lower control arm bolt holes may be no lower than three (3) inches from bottom of axle housing and the same on both left and right. Rear spring perches must be solid and same on both sides and must be centered on the rear end housing.
- 7.8. Maximum length of rear springs is fourteen (14) inches tall free height. Both sides must be equal and in stock location. Springs must be a minimum of five (5) inches diameter.
- 7.9. Progressive springs are not allowed. Spring rubbers are not allowed. Suspension travel limiting devices are not allowed.
- 7.10. Must sit in top and bottom stock Mounts
- 7.11. Leaf spring cars are allowed.
- 7.12. No Weight Jacks Allowed
- 7.13. All 4 Cylinder Cars will follow suspension rules under USRA Tuners.

8. Cockpit, Steering & Seat

- 8.1. Air bags & Rear view mirrors are not allowed.
- 8.2. Window nets & firesuits are required for both driver and passenger (if passenger in car).
- 8.3. Steering boxes must remain in stock location. All components must be made of steel, unaltered OEM and OEM location, and match frame. Tie rod end adjusting sleeve may be replaced with a five (5) inch steel tube replacement. Bolt-on OEM spindle savers are permitted.
- 8.4. Aftermarket steering wheel and quick release steering coupling are recommended.
- 8.5. Quick steer boxes are permitted.
- 8.6. Area of seat where drivers shoulders make contact (where the shoulder harness passes through) may be no further back than twenty-five (25) inches forward of center line of rear-end housing.
- 8.7. Four-Point quick release seat belt and harness required for both driver and passenger (if passenger is in car).

9. Weight

- 9.1. The overall weight of the racecar must be a minimum of 3,000 pounds with V8 or 2,800 pounds with V6 or 2,500 pounds with 4 cylinder and shall be measured at the conclusion of the race with the driver in the cockpit, wearing complete racing apparel.
- 9.2. Lead and/or ballast must be securely fastened and painted white with car number.

10. Safety

- 10.1. Driver must wear required helmet, fire suit and safety harness whenever racecar is on the racetrack. This includes during track packing, warmups, hot laps and races.
- 10.2. Helmets are mandatory and must be certified SA2010, SA2015 or SA2020.
- 10.3. Complete one- or two-piece fire suits of a flame-retardant nature are mandatory.
- 10.4. Fire-resistant gloves and shoes are mandatory.
- 10.5. Driver & passenger must utilize Driver restraint System.

- 10.6.** All cars are required to have a roll bar and two (2) kickers extending from the top of the roll bar back to the back seat/trunk area made up of 1 3/4-inch pipe with no less than 0.095-inch wall thickness. Absolutely no square tubing, galvanized pipe or black pipe allowed. Roll bar and kickers must be welded or bolted to the frame or floorboard using 1/8-inch by 4-inch by 4-inch. A four-point cage is recommended.
- 10.7.** Solid bars running from top of windshield to bottom of windshield are required. Bars must be solid. Hollow tubing is not allowed. A racing window net is required for both driver and passenger.
- 10.8.** All glass, mirrors, interior, sharp objects, lights and chrome must be removed. Gutting of the doors is not allowed except for clearance for door bars. If you choose to add door bars, it is required you have at least three (3) door bars.
- 10.9.** All 4 Cylinder cars please refer to the USRA Tuner Rules.

11. Body

- 11.1.** Stock OEM body panels or stock appearing aftermarket body panels allowed.
- 11.2.** Stock appearing aftermarket plastic nose or tail piece is allowed.
- 11.3.** Spoilers not allowed.
- 11.4.** A seven (7) inch maximum front visor is permitted
- 11.5.** Stock appearing aluminum or steel hood and trunk lids are permitted.
- 11.6.** Stock-type bumpers or Fabricated tube bumpers are allowed, No sharp edges & no extreme heavy duty built bumpers allowed.
- 11.7.** All racecars must be numbered with large legible numbers on both sides, on top and on the nose and rear panels. Numbers on the sides of the racecar should be in contrasting color from the body and be at least four (4) inches thick and at least eighteen (18) inches high. Top number should be at least four (4) inches thick and twenty-four (24) inches high.
- 11.8.** All 4 Cylinder Cars please refer to the USRA Tuner Rules.