



## **Afton Motorsports Park 2025 Factory Stock Rules**

### Eligibility Requirements and Frame Rules

This class is open to 1965 or newer American made cars with a factory minimum wheelbase of 108 inches or an aftermarket replica of a Stock/OEM factory frame with all Stock/OEM factory suspension mounting point in place, IMCA Mod Style chassis will not be permitted.

1. All frames/chassis must be approved by the track
2. No four-wheel drive or front wheel drive cars.
3. The frame may be shortened but must maintain a 107-inch wheelbase measured from center of lower ball joint to center of rear end housing with car at ride height.
4. The frame may be cut off in front of the steering box/idler arm and replaced with tubing equal in strength
5. Rear frame can be replaced from the center of the rear end housing back with square stock, or round tube equal in strength.
6. All suspension mounting points must remain stock location for make and model of car. (Within one inch allowance)
7. Engine Location must be in stock location. Must have six-point roll cage. (see cage rules)
8. Must have a complete body and should resemble a factory body. (see body rules)  
The body must be mounted centered over the frame.
9. Camaro clip cars will be allowed. Leaf spring rear suspension only.
  - a. The middle and rear frame must be made with 1.5x3x.095 tubing minimum
  - b. Front and rear clips must be centered. (NO offset roll cage) mounted centered on the frame. May have sliders
  - c. Any type of leaf spring mount bushings allowed.
  - d. The distance between the front and rear spring mounts must be the same as the factory. (Front and Back, as well as Left to Right)
  - e. Stock engine location of 15 inches must be met
10. All cars must weigh a minimum of 3000 pounds after racing with the driver.
11. No traction control or timing altering devices allowed.
12. Bottom of the driver's seat must be a MINIMUM of 31" from the center of the rear axle tube.

# Front Suspension and Steering Rules

1. Front lower control arms must be oem/stock (includes length)
2. Any type of steel or stock bushings may be used. Heim joints are not permitted.
3. May change ball joint to any type, but must remain in stock location.
4. Front upper control arms and mounts can be changed to tubular solid mount style aftermarket a-arm assembly.
5. Adjustable spring cups allowed. Jacking bolts will not be permitted
  - a. No remote adjusters of any kind.
  - b. Front shocks must be mounted in OEM location, Must be bilstein ak1043 shock. No altering allowed.
  - c. No restricting (chains or other material) of suspension anywhere on the chassis.
6. Stock/oem sway bars front and rear will be allowed.
7. The steering gear box, Idler arm, center link, and all tie rods must be OEM/Stock as per frame.
8. OEM/Stock spindles only GM for GM, Ford for Ford, ect. 3 Piece spindles allowed
9. Stock steering shaft rag joint must be removed.
10. Steering quickeners allowed.
11. Quick-release steering wheel with safety pad mandatory.
12. No Chaining allowed

# Rear Suspension

1. All upper and lower control arm mounts on the frame must be in stock location
2. Lower rear control arms must be OEM style, no tubular radius rods with heim joints.  
OEM/Stock length on both sides. 19 3/8 inch is stock length center of bolt to center of bolt.
  - a. Any type of bushing may be used.
  - b. Must mount in stock hole on frame
  - c. Must maintain factory angle to rear end housing.
  - d. The lower rear control arm mounting brackets on the housing must be the same on both sides and welded to the housing in the same location and angles on both sides.
  - e. The lower rear control arm mounting brackets on the housing must have welded adjustable holes. No holes can be lower than 5.75 inches down from the center of the axle tube.
  - f. Where the rear lower control arm bolts to the rear lower control arm bracket must be in the same hole on the right and left sides. (same hole side to side, up and down, and front and back).
3. Upper rear control arms may be stock, aftermarket or homemade. Adjustable upper controls are permitted. Any type of bushing may be used. Monoballs allowed. No heims
  - a. Must maintain OEM/Stock length + or - 1 inch. 11 inch is stock oem length center of bolt to center of bolt sides.
  - b. Must be the same length on both sides.
  - c. Must mount in stock hole on the frame and maintain factory angle.
  - d. The upper rear control arm mounting brackets must be the same on both sides and welded to the housing in the same location and angles on both sides.
  - e. The upper rear control arm mounting brackets on the housing CANNOT have adjustable holes.
  - f. Where the rear upper control arm bolts to the rear upper control arm bracket must be in the same hole on the right and left sides.
4. Coil springs must mount on top of the axle tube in OEM location side to side, front to back, and up and down.
  - a. The spring cannot be more than 1.5 inches front to back of the centerline of the axel.
5. Only permitted rear shock for G Body cars is Bilstein AK1044
  - a. Camaros only: permitted rear shock Bilstein AK1054
    - i. No altering or modifying shock in any way
6. No remote adjusters of any kind.
7. No Chaining allowed. Can not use other materials to get the same effect as chaining.

# Motor Rules

1. Stock engine location measurement of 15 inches must be met.
  - a. Distance of the center of lower ball joint and back of engine block cannot be greater than 15")
    - i. 73-77 Monte Carlo frame must meet 18 inch engine location measurement.
2. Engine must remain in stock location.
3. Solid motor mounts allowed. (Aftermarket allowed)
4. Cast iron oem/factory block only. (Maximum over bore .060)
  - a. 360 cubic inches maximum
  - b. Maximum displacement allowed:
    - i. GM - 350 CI +.060" 4" Bore x 3.480" Stroke
    - ii. Ford - 351 CI +.060" 4" Bore x 3.5" Stroke
    - iii. Chrysler - 360 CI +.060 4" Bore x 3.578" Stroke
    - iv. Chrysler AT - 340 CI +.060 4.040" Bore x 3.13" Stroke
5. No 400 cubic inch blocks allowed.
6. Any Steel wet sump oil pan allowed. No modified or windage screens.  $\frac{1}{2}$ " pipe plug must be installed for inspection purposes. No remote mounted oil filters or coolers.
7. Stock cast iron heads. No angle plug heads. No dart heads. Must be stock or OEM replacement. Allowable heads must have a casting number. Stock GM Heads with 2.02-1.6 Valves. Vortec heads will have 1.94-1.5 valves. Vortec heads allowed are: 10239906, 12552520 & 12558062. Or GM replacement head part number eqch350i. No aftermarket vortec heads. Heads must be manufactured by the manufacturer of the engine block. No aftermarket bow tie heads or Blocks. All factory casting numbers must remain visible. No SVO Ford parts. No aluminum heads, even if they were OEM.
  - a. Any angle valve job will be permitted if it is done on a machine that is concentric to the valve guide center. Any amount of valve seats per cylinder head will be allowed to be installed for repairing a head.
  - b. No hand grinding, sanding, blending or deburring where a cutter or stone leaves off.
  - c. Sand blasting, bead blasting, acid dipping, porting, polishing, and welding prohibited.
  - d. Full rollers are permitted. Poly locks allowed. Ball tip pushrods allowed.
  - e. Stud girdles permitted.
  - f. No titanium or aluminum valve train parts.
  - g. Screw in studs and guide plates allowed, but must be OEM size and location.
  - h. No BBC studs in SBC Heads.
  - i. No relieving or unshrouding of valves in the combustion chamber.
  - j. May run double valve springs.
8. Any steel harmonic balancer allowed

9. No roller lifters or mushroom lifters.

10. Pistons

- a. Flat top pistons only. No domed pistons.
- b. Aftermarket pistons allowed as long as they are the stock/OEM type.
- c. Minimum 1/16" x 1/16" x 3/16" rings only. No metric rings or gas porting of pistons allowed.
- d. Must have atleast two valve pockets, but the pistons cannot be flu cut.
- e. Floating pistons allowed, but no piston guided rod/pin configurations.

11. Rods

- a. Aftermarket I-Beam sportsman replacement rods allowed. Rods can be no longer or lighter than stock / OEM for the motor used.
- b. No Olds rods in chevy engines
- c. Aftermarket rod bolts allowed
- d. No polishing, lightening, drilling, etc
- e. No aluminum rods
- f. Balancing or bushed rods are allowed.

12. Crankshaft

- a. Crankshaft must be of stock dimensions, weight and style. Must weigh at least 48lbs.
- b. Balancing of rotating assembly allowed. Stock stroke only for make / size of engine. No altering of stock stroke crankshafts allowed.

13. Intake

- a. Any stock OEM production 2 barrel or 4 barrel intake manifold, cast iron or aluminum (listed below) is allowed. Factory casting number must remain  
GM 12366573 Edelbrock 2116, 7116, Powerplus Cyclone 5200  
Jegs 555-513000, 555-513002

14. No gear drivers or belt drive cam system. Timing chains only

15. Blocks may be decked but piston must not extend above deck at all.

16. Flat tappet cams only

17. Only one carburetor space / adapter can be used and cannot be over 1.25" thick with 2 gaskets.

18. No remote mounted oil filters

## Carburetor Rules

1. Limited to one stock 4412 Holley carburetor or one OEM/Stock 2- barrel carburetor.
2. Carburetor must have a choke horn but all hardware can be removed.
3. Carburetor must pass all no-go gauge checks.
4. No modification to pick up air from any source other than through the top of carb.
5. The following changes may be made to carb:
  - Jets, power valves, air bleeds, emulsion bleeds, float, needle/seat, and pump cam
  - You may drill idle holes in butterflies.
  - You may block off vacuum ports.
  - You may weld linkage plate to shaft.
  - You may install new shaft bushings
  - You may tighten the booster.

## Fuel System

1. Race fuel or pump gasoline only. No oxygenated fuel or additives allowed. Maximum of 32-gallon fuel cell with foam and rollover valve Mandatory.
  - a. Must be mounted to the frame or roll cage in the trunk area.
2. All fuel lines and fittings must be suitable for racing fuel.
3. Fuel shut off valve is mandatory and mounted in reach of the driver and safety personnel. ON/OFF must be clearly marked.
4. Mechanical block mounted stock/oem style fuel pumps ONLY.

## Ignition

1. Stock/oem style electronic ignition system only with coil in the cap.
2. No traction control or timing altering devices allowed
3. No crank trigger ignitions or multi coil systems

## Headers / Exhaust

1. Headers will be allowed with a tube diameter of 1 7/8 inch.
2. Cast iron exhaust manifolds will be allowed no center dump.
3. Crossover headers are allowed but no 180-degree header allowed.
4. No crankcase evacuation type systems,two into one exhaust, h pipes or x pipes allowed.

## Cooling System

1. No electric water pumps.

2. Steel fan only
3. Any pulleys allowed.
4. Any radiator, but radiator must remain in stock location.

## Drivetrain Rules

1. Transmission, any stock/oem, must have all working gears. No direct drive automatic transmissions allowed.
2. Aftermarket racing transmission will not be allowed. (bert, falcon, brinn, etc.)
3. Rear end housing, stock/oem type only. No quick-change rears.
  - a. Ford 9-inch floater rears allowed.
  - b. Solid axles only. No gun drilled, twist or lightened axles.
  - c. All components must be steel. (internal and External). No lightweight gears or carriers.
  - d. Welded, locked or spools allowed. No lockers allowed
  - e. No ratchet type differentials or traction control devices of any kind
  - f. Lower control arm bracket hole cannot be any lower than 5.75 inches from the center of the axle tube.
4. All control arm mounting points must be welded to the rear end housing
5. Drive shafts must be painted white.
  - a. Cannot be smaller the 2 inches in diameter.
  - b. Must have 2 steel safety hoops one in front, one in rear.
  - c. No aluminum, carbon, or half shafts allowed

## Wheels and Tires

1. Maximum 8 inch wide, steel wheels only. No aluminum, magnesium, or carbon wheels
  - Can be any offset.
  - Bead locks are allowed all four corners.
  - 1-inch steel lug nuts are mandatory with at least 1/2-inch diameter studs.
  - Five lugs per wheel.
2. D.O.T. approved passenger car tires only
  - No snow tires or blocked tread patterns.
  - No racing tires, Hoosier, American Racers, Towel City, and Diamond Backs ect.
  - No Recaps.
  - No softening of tires allowed
3. Tire size P235/70/15
4. Grooving, sipping, and grinding tires is allowed.
5. All tires must be approved by track officials.

## Shocks and Springs

1. Shock package bilstein ak1043 on front and bilstein AK 1044 on rear will be the only shocks permitted.
2. Must maintain stock oem mounting angle and mounting point or equivalent of stock placement.
3. Only one shock per wheel
4. No altering the shock in any way must be valved from bilstein.
5. No bump stops allowed.
6. Any steel, stock/oem or aftermarket racing spring will be allowed .Only one spring per wheel

## Body Rules

1. Steel or aluminum bodies allowed no plastic EXCEPT FOR FENDERS. Should resemble stock. No fiberglass bodies.
2. Bodies must be centered over the frame.
3. All glass, molding and interior components must be removed.
4. Late model style cockpits will be allowed but must be made of 20-gauge steel
5. or .080 aluminum or thicker. sidewalls and holes must be sealed.
6. Floor boards must be made of 16- gauge steel or .120 aluminum or thicker. (1-inch maximum diameter hole for drain)
7. Stock/oem floor boards may be used but all holes must be patched and firewalls sealed off from the drivers' compartment.
8. No sharp edges or you will not be allowed to compete.

## Cage Rules

1. A complete six-point cage is mandatory, welded to the factory frame, or an added frame rail that is equal in strength. The track reserves the right to drill a test hole at any time.
2. 1.5-inch diameter and .095 wall thickness tubing will be the minimum allowed.
3. Cage must have 3 door bars on each side. Must use at least .120 thickness steel plate encasing door bars.
4. The cage must have 2 cross bars one below and one above the windshield opening.
5. The cage must have 1 one-inch vertical bar down the center of the windshield area.
6. The cage must have 2 rear cross bars (side to side). The top one must be 2 inches above the driver's head and the middle should be at top door bar height.
7. The cage must have three roof bars(front to rear) one on each side and one in the middle area. These bars must clear drivers head and leave room to extract driver thru roof.
8. The cage must have 2 rear down posts from the top rear cross bar down to the rear frame rails.
9. Any roll cage the track determine as unsafe will not be allowed to compete
10. Halo bar mandatory.



## Bumpers and Nerf Bars

1. All bumpers and bumper support bars must be securely bolted or welded to the frame.
2. All bumpers end must be capped, turned in, and have NO SHARP EDGES.
3. All cars must have TOW HOOKS on the front and rear of the car, easily accessible by tow truck operators without removing hoods.
4. Nerf bar is optional between front and rear wheels and from rear wheel to back bumper
  - a. Must be no bigger than 1.5 inches in diameter.
  - b. Can only be one pipe.
  - c. Cannot stick out more than 1.5 inches past tire sidewall.
  - d. All edges must be capped and turned in with no sharp edges.
5. Any car with uncapped or sharp edges on nerfs or bumpers will not be allowed

## Brakes

1. Stock/oem style single piston calipers only. No aluminum
2. 4-wheel disc brakes allowed
3. Dual master cylinder with balance bars and remote adjusters are allowed.
4. Right front brake shut off is allowed but must be within reach of the driver.
5. No aluminum rotors
6. All brakes must work

## Seat / Interior

1. An Aluminum seat is mandatory, minimum .095 thick.
  - a. Seat must be high back.
  - b. Seat must be bolted in with a minimum of six 3/8-inch diameter bolts. (4 in bottom and 2 in back)
  - c. Seat must be bolted to the frame or roll cage.
2. Car must have a 5-point racing seat belt within date.
  - a. Harness must be bolted to frame of roll cage with at least 3/8-inch diameter bolts
3. Must have a bar behind the seat at shoulder height that the seat belts rest on.
4. All bars in drivers contact area must be covered with roll bar padding (no pipe insulation).
5. Window net is mandatory and the driver must be able to open it from the seat.
6. All pedals must be in stock location in the drivers' compartment. (no hand clutch ect.)
7. No Cable operated throttles allowed.
8. Gas pedal must have a TOE LIFT LOOP.
9. Driver must be protected by sealed front and rear firewalls and both sidewalls made with a minimum of 20- gauge steel or .080 aluminum.

10. Cockpit floor must be made from 16- gauge steel or .120 aluminum or thicker. (1- inch maximum diameter hole for drain).
11. The ignition switch must be clearly marked on/off.
12. A master kill switch is mandatory and should be placed where the driver and safety personnel can reach it. Must be clearly marked on/off.
13. A fuel shut off is mandatory and should be placed where the driver and safety personnel can reach it. Must be clearly marked on/off
14. The battery cannot be mounted in the drivers' compartment.

## Roof

1. Any stock/oem, aftermarket, or homemade roof will be allowed but must be approved by track.
2. It may be constructed out of steel, fiberglass, or .080 aluminum minimum. No half roofs or roof spoilers.
3. Must be centered over body

## Hood

1. Any Stock/OEM, aftermarket, or homemade hood will be allowed but must be approved by track.
2. It may be constructed out of steel, fiberglass, or aluminum at least .040 thick.
3. Hood scoops will be allowed. Maximum 3- inches tall and 21-inches wide.

## Fenders, Doors, Quarter Panels and Trunk Lid

1. Any stock/oem, aftermarket, or homemade fenders, doors, quarter panels, and trunk lid will be allowed but must be approved by track.
2. They may be constructed out of steel or aluminum at least .040 thick. Fenders may be plastic.
3. Should resemble factory.
4. Upper Quarter Panels:
  - Any stock/oem, aftermarket, or homemade upper quarter panels will be allowed but must be approved by track.
  - It may be constructed out of steel or aluminum at least .040 thick.
  - Panels Must not be oversize. NO SAIL PANELS
5. Nose Piece:
  - Must have a nose piece. It may be a stock/ oem or aftermarket replica.
  - No fiberglass.
  - Must fit the body correctly.
  - No late model type flares.

6. Rear Panel:

- It may be constructed out of steel or aluminum at least .040 thick.
- Must be a minimum of 8 inches tall.
- Rear fuel cell must be fully covered on tail
- Car number must be displayed on the rear panel. (6-inch number minimum)

7. Rear Spoiler:

- Spoiler may be made of Lexan or aluminum at least .040 thick.
- Maximum height is 6 inches.
- Must not be adjustable.
- Spoiler sides may not exceed 6 inches in height or 20 inches in length and must not extend beyond the main spoiler.
- ALL BODIES MUST BE APPROVED BY THE TRACK

Thank you for racing with us!