

2021 HCMS BOMBER RULES

**ANYTHING NOT SPECIFIED IN THE RULES MUST BE STOCK FOR
MAKE AND MODEL OF THE CAR.**

- All equipment must be in original position from the original manufacturer.
- Total weight with driver 3400 lbs.
- Full Containment Seat and Hans together- 3350 lbs. Must Have Both To Get Weight Break.
- No 400-small blocks • No Big Blocks • May run headers. 1-⁵/₈ Max O.D. on headers.
- No try (y) or neck down headers allowed on the collector. Headers may not come out of the side of the fenders. Must run mufflers.
- American made 2 or 4 door sedan with a minimum wheelbase of 108 inches. NO FWDs, No Trucks, NO AWDs, No Convertibles, No Vans.
- May run Metric Monte Carlo, Cutlass Supreme, Grand Prix, Thunderbird or Camaro. Must retain uni-body. No subframe connectors. Chassis may not be tied together on Camaro Chassis. Camaro's with subframe connectors will have a 100 lb weight penalty. May run a station wagon must add 100lb weight penalty.

ENGINE RULES:

Engine must be strictly stock for that make and model. No high output engines. 602 crate not allowed. No Fuel Injection Cars. 358c.i. max
\$2000.00 Claimer Rule on Motor.

Engine allowed .060 for bore. GM in GM, Ford in Ford.

- Cast factory pistons only. Hypereutectic stock replacement allowed. No Forged Pistons. Must run 4 valve relief pistons. No Keith Black or Icon Pistons. No fly cutting pistons, no racing rings.
- Piston in hole minimum .020 (piston head to block deck).
- May run factory connecting rods for make and model of car. 5.7"max on length of rod. May run aftermarket Speedway Motors Part # 91015327 connecting rods only. 646 grams minimum. No lightweight rods. No H-Beam rods. I-Beam Only.

Engine must sit in stock location. No tolerance.

- Press fit wrist pins only. After-market bolts ok.
- Must run factory crankshaft for make and model of car. 3.48" Max stroke on chevrolet. Factory OEM Nodular Crankshaft allowed. May run aftermarket caps/bolts. No knife edging of the crankshaft. Crankshaft min weight must be 50 lbs minimum. Aftermarket Crankshaft not allowed.
- Stock valve covers, or aftermarket covers with breathers.

- Stock oil pan, or may run aftermarket oil pan. No scrappers/multiple tray pans.
- Stock type distributor. May remove alternator. No Msd boxes.

HEADS:

70cc Min. Stock production cast iron OEM heads only. Vortec Heads, Double Hump Heads, World Products, or Dart not allowed. No porting and polishing of heads.

No stainless steel valves.

1.94 intake and 1.50 exhaust valves max allowed.

Valve spring 100 lbs. maximum (stock diameter and design only)

- No aftermarket retainers. (stock steel replacement ok)
- May have 3 angle valve job.
- No modification to the combustion chamber.

Stock rocker arms only. 1.5" max only. No roller tips. No roller rockers. No guide plates, No Stud Griddles.

- Polly locks ok. Press in studs only, no screw in studs. Cannot pin the studs.
- All external components are open, (water pump, pulleys, hoses, brackets, fan, radiator, etc.)

CAM AND LIFTERS:

Stock style timing chain and gears. Single roll or double roller timing chain ok.

- Camshaft: Hydraulic only.

Lift: intake .390, exhaust .410 Hyd. at "0" Lash. No centerline rules. No solid or roller cams. Stock replacement lifters. No push up lifters.

- Stock balancer / SFI approved stock type preferred.

Must have a stock horseshoe wire ring clip. Valve adjustment must be preloaded.

Camshaft specs for Ford:

- Lift: Intake .416, Exhaust .416 Hyd. – "0" Lash

CARBURETOR AND INTAKE

- 500 cfm max. Only can run one carburetor. Carburetor must have a choke horn. No XP Carburetors, No Willy's Carburetors. No 4 bbl carburetors. No modifications to the metering block. May change jets and power valve. Box Stock.

**All carburetors must pass ALL HCMS TRACK CARBURETOR
NO-GO-GAUGES. NO EXCUSES**

- May run 4bbl to 2bbl Carburetor spacer & 2 gaskets, Max. .065 per gasket". No XP Carburetor spacers. No carburetor spacer allowed if you are running 2bbl intake.

-Air Filter: 3" max.

May run Aluminum intake part # **EDL-2101**. No other 4 bbl intake dont ask. May run unaltered factory stock cast-iron intake. No porting or polishing of any intake allowed. May be milled to fit gasket one side. No high rise intakes. No spacer allowed between the head and the intake. No port matching. Marine intakes are not allowed.

TRANSMISSION:

May run 3 or 4 speed saginaw. No muncie transmissions, no T-10 transmissions. May run automatic transmission. No Powerglides or racing style transmission. Must have all working gears.

Stock diameter full working torque converters. No light weight or direct drive (all gears must be operable)

CLUTCH / FLYWHEEL:

- Flywheel 14 lbs. Min. Stock type clutch & pressure plate must weigh 16 lbs. No Aluminum parts. Clutch and Flywheel must weigh a combined minimum of 30 lbs. No mini clutches. May run hydraulic throwout bearing.

REAR END:

- Stock rear end for make of car only. No floater rear ends. May run mini spool. Lockers, or limited slip rear end not allowed. May weld spider gears.

No lightweight gears or axles of any kind allowed. Disc brakes are allowed but must be factory rear brakes for make and model of car, no aftermarket. No Aftermarket rear rotors. No brake adjusters allowed. Brake cut offs are not allowed, Must have 4 wheel working brakes. May run aftermarket brake

pedals, No dual master cylinders. May only run one master cylinder. May run booster on brakes.

CHASSIS / SUSPENSION:

- Stock suspension for make and model of car. Factory lower control arms. No screw in ball joints. Must run press in lower ball joints. No modifications to the lower ball joints mounting area. No 3pc spindles. No bearing spacers.

Must run factory upper control arms. No extension ball joints. Control arm bushings and sway bar bushings, may be aftermarket polyurethane. Upper control arms mounts must remain in stock location.

NO "four wheel" independent suspensions. Sway bar optional. If sway bar is used it must be the same height on both sides. Cannot not tie down rf with sway bar.

- Racing springs allowed on front 5.5" x 9.5" max spring allowed. May run adjustable cups in front. Adjustable cups in the rear on metric cars are not allowed. Solid Cups only. May run racing springs in the rear of a metric car must be 5" x 11" max. Both springs must be the same height.

- Rear trailing arms must be stock but must be non-adjustable and have stock type rubber bushings. Rear trailing arms must be stock length, no offset bushings, monoballs or heims. Reinforcing the trailings arms not allowed. No slotted holes in mounts for trailing arms. Rear trailing arms must have a washer welded to the frame where the bolt goes through if slotted no excuses.

- Upper trailing arms to be 3" from center of hole to top of rear end housing

Center of axle tube seam to center of upper trailing arm bolt to be 7 $\frac{3}{4}$ " max, lower trailing arms must be 2 $\frac{3}{4}$ " from bottom of axle tube to the center of trailing arm bolt.

- Both upper trailing arms should be mounted in same location and both lower trailing arms should be mounted in the same location (no offsetting of trailing arms, if the right side is 2 $\frac{3}{4}$ from the bottom of rear end housing the center of the trailing arm bolt, then the left side should also be 2 $\frac{3}{4}$)

- Steel non-adjustable, shocks in factory location only. No bump stops, no rebuildable steel shocks (no schrader valves, hyper screws, no air shocks, or piercing valve.) **\$80.00 claimer rule on shocks**. Can only claim one shock per night. Can only claim 2 shocks a year.

- Qa1, Pro, Bilstein, Penke, War, Fox etc. shocks are not allowed. May only run Afco shocks 10 series shocks or stock replacement shocks but must be approved by techman. No other racing shocks are allowed. Part Number must be visible to tech.

- Both ends of rear shocks should be mounted at factory location for make and model of car. Mounting ears of shock must be mounted flat against factory shock mount. (no shimming down from factory location) lower end of rear shocks must be mounted at same height of rear end. No heim joint shocks.

- Leaf spring cars may run aluminum lowering blocks, but cannot be adjustable.

- Leaf spring cars must run factory style shackles, No adjustable style shackles. May run racing leaf springs, but must be camaro/nova multi leaf springs. No Chrysler style springs. No Mono leafs. May run Landrum or Afco leaf springs only. No fast boy setups. No arching of the leaf springs. No more than 6.5 arch in the leaf springs. No traction bars.

- No offset cages, perimeter style cage only. May run front loop bars. May run rear loop bars.

No steering quickeners. Steering box must be 12:1 or more. No quick steering boxes. Center link, Idler arm, tie rods, spindles, must remain stock for make and model of car. No offset centerlinks. No short pitman arms.

May clip the rear of the car 18" from center of rear end back, for crash damage with 2 x 3 x 1/8 tubing min.

BODY:

- All doors must be welded shut, unless steel was replaced then pop riveted is allowed.

- All materials that would burn must be removed.

- All glass must be removed. * INCLUDING REAR VIEW MIRRORS. *

Aluminum Racing seat mandatory. Seat must be bolted secure to bars that are welded to roll cage. No fiberglass seats.

Must have 5-point harness belts must be bolted to roll cage.

6-point roll cage min. required and must be welded to frame rails and all connections must be fully welded. All cages must be a minimum outside

diameter of 1 ½ inches and minimum .090 wall thickness. Roll bar installation and workmanship must be approved.

A minimum of 3 horizontal bars is required in the driver door and a minimum of 3 in the passenger door. Must run a 3/16" plate on drivers side door.

- **Trunk floor pans may be cut out from rear shock mounts to the back bumper only.** Rear inner fenders must remain in the car. Must box in between the back seat and trunk. No boxed in interior. No boxing in behind the driver.

Dashboard may be replaced with sheet metal, no aluminum. Dash may be altered with minimum modifications.

All holes in the floorboard and firewalls must be covered with sheet metal, not aluminum. Stock unaltered floor pan and firewalls must be retained. Must have rocker panels and door frames still in the car.

Complete bumper to bumper unibody must be retained.

Bumper covers, and grill may be aftermarket, should be stock appearing. No sharp edges or tire cutters.

May have a radiator protection bar, and cannot extend past the front bumper.

Must have wrecker pick up points front and rear. (Chain, cable, etc)

Must run fuel tank safety bar at rear, cannot extend past bumper.

Doors and front fenders must be made of steel. May run aftermarket doors and fenders but must be made of steel and stock appearing. Doors and fenders must have factory bends, no flat sides. May run fiberglass hood but must be stock appearing.

- 4" spoiler max. With a total of 5" of material total. No side spoilers. No support braces.

Tires:

Hoosier 500 or Harder 27.5 x 8 x 15 max. Tire allowed
American Racer tires not allowed.

- Steel wheel allowed. 8 inches maximum. Beadlock wheels allowed. Large wheel studs and 1 inch lug nuts mandatory. Must run the same offset wheels on all 4 corners. No aluminum wheels. Grooving or Siping not allowed.

NO TIRE TREATMENT ALLOWED – Track reserves the right to take tire sample at track discretion. **Tire Sample may be taken from the fastest qualifier at any time.**

SAFETY:

Fuel tank must be moved inside the trunk. Fuel cell mandatory. Must be in metal can tanks must be securely mounted.

- Fuel line run through the car must be in conduit or protective cover. braided line ok.
- Approved fire extinguisher, 2 lb. with gauge required and must be securely installed in reach of driver.

- Battery should be located under the hood or in the trunk. Batteries must be in a containment box, securely attached to frame or roll cage, battery not allowed in driver compartment. Must run a quick disconnect for the battery in reach of the driver and track official in case of emergency.

Approved racing helmets and complete fire suit must be worn any time a car is on track.

- Racing steering wheel with quick release mandatory.

Clutch type fans must be removed and replaced with a straight blade fan for safety.

- Seat belts must have date and be no older than 5 years.

- Window net required and must be in use any time the car is on track. Sprint style window nets not allowed.

- All weights must be painted white and have a car number on them.

- All drive shafts must be steel and be painted white with a car number on them.

DRIVER: THIS IS A BEGINNERS CLASS.

BOMBER CLASS you must be at least 14 years of age to race. Anyone that has less than 3 years of experience can race in this class. Anyone that has ever run Late Model, Limited Sportsman, Super Stock 4, Open Wheel Modifieds, or Mod Lites can't run this class. Anyone that wins more than 5 races a year in this class will have to move up or take 1 year off before returning to the class the following year.

PROTEST FEES:

Division Protested Car/ Protestor

\$100.00 / \$300.00

Visual Protest \$25.00

Visual Protest must be done within 15 mins after qualifying or heat races of your class.

After the race 1st place car will come on scale and stay until 2nd place and 3rd place car arrives. If 2nd or 3rd place wants to do a protest let the techman know before 1st place car leaves the scale. Only top 3 cars can issue a protest. If a protested car leaves the tech area and goes back to their pits during a protest they will be Disqualified. For Example, protest would go as follows: If the protested car is found illegal, he loses his \$100.00 fee. (which the track remains), and the protester is refunded his \$300.00. If the protested car is found legal he is refunded his \$100.00 and the protester loses his \$300.00 The track will retain \$175.00 and the protested car will get \$175.00. Techman makes all decisions. **Only one crew member in tech area with their driver. If more than 1 crew member is in tech area they will be Disqualified.** Money must be giving to tech man within 5 minutes of agreement to protest.

- **The protestor must tell the techman what you are protesting.**
- **Choose one option only.**
- **Cannot choose Motor and Car together.**
- **Motor- Carburetor to Oil Pan with all external parts connected to the motor.**
- **Car- Front Bumper to Rear Bumper. Once a car is found illegal the protest stops.**

If both cars are being protested we will pull part for part on each car.