



BOMBER - 2017

Preface:

Bombers are intended to be an entry level, affordable, fun, bone stock division for the budget minded racer.

If you have the financial means or desire to modify your car outside of the following rules please consider racing in the appropriate division. **Driver Restraint/Safety:**

Reference Safety Rules in General Rules, Subject to track inspection and approval, applies to all times car is on track including packing both driver and passenger. All cars must have aluminum racing seat in OEM stock location, both driver and passenger.

Fully charged fire extinguishers are mandatory in the driver's compartment within the reach of driver and must have a fill level gauge.

All drivers are required to have a working **RACEceiver**.

Frame:

Any American made 1955 or newer full frame or unibody rear wheel drive stock passenger car or Single Cab ½ Ton Pickup with following exceptions: No Camaros, No Firebirds, No Trans AMs, No Compacts, No Corvettes, No Convertibles, No Sports Cars, No Front Wheel Drives, No 4 Wheel Drives or All Wheel Drives will be allowed.

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

Frames must be stock as produced, no cutting, shortening, lengthening, narrowing or modifying allowed.

Minimum wheelbase 108 inches.

Frame may not be X-braced.

Roll Cage:

Minimum of a four-point roll cage, must be constructed of magnetic steel tubing minimum 1.5 inch OD x .095 inch wall thickness and must be welded to frame.

Main cage rear hoop must have a minimum of one horizontal bar and one diagonal bar from top of hoop to bottom of down bar.

Main cage front uprights must tie together with a minimum of one horizontal bar.

Must be a minimum of 1 inch from top of roll cage main halo to top of driver's helmet with driver strapped in and with helmet on. Rear loops mandatory and must provide fuel cell protection, front loops optional and highly recommended.

Door Bars:

Minimum of 3 driver's door bars 1.5 inch OD x .095 inch wall thickness, parallel to frame and perpendicular to driver and a minimum of 2 horizontal passenger door bars (3 bars also required on passenger side if passenger in car).

Must be constructed with a minimum of 3 vertical bars from frame to top door bar in an intertwined fashion to strengthen door bar system.

Steel door plate of 18 gauge or 0.0049-inch minimum thickness is required on driver's side of car, plate must extend the full length of the door, may be welded into door bar system design. (Also required on passenger side if passenger in car).

All welds must be complete, gussets recommended in critical

areas. **Body:**

Body's must be *steel* OEM or stock *steel* replacement, no aluminum body components of any kind allowed, even if OEM. Cars must have OEM steel roof, roof supports, hood and deck lid, front and rear firewalls.

No gutting of roof, hood, doors, A, B or C pillars, roof supports, kick panels, rocker panels, front or rear firewalls or floorplans. Only cutting of body allowed is to provide clearance for installation of roll cage and door bars.

Driver must be sealed off from track, engine and fuel/battery, any openings must be covered with minimum 22-gauge steel to isolate the driver. Any rusted out or partially missing floor pans or rear firewall must be replaced with minimum 22-gauge steel.

Bodies must be in OEM stock location.

Stock body panels may be cut 2 inches below body line and replaced with minimum 22-gauge *steel* panels – bodies must retain STOCK appearance.

No spoilers (even if factory equipped), no wings, no skirts, no air scoops, or anything that alters stock appearance.

Upper front windshield visor is allowed not to exceed 7 inches in width.

Must have a minimum of 4 5/16-inch vertical windshield bars spaced 4 inches apart to protect driver (and or passenger).

Doors must be bolted or welded shut, sunroofs and T-tops must be reinforced and enclosed.

All glass, combustibles, plastic, upholstery, lights, mirrors, and trim must be removed. (No rear view mirrors of any kind).

No Air bags, all air bag components must be removed.

Outer fenders may be cut a maximum of 7 inches of circumference for tire clearance.

Front inner fenders may be removed, rear inner fender may be removed from seam outward.

No enclosed interiors or decking allowed, no part of dash can be more than 28" inch from center of back edge of hood measured rearward.

No roof rake, must remain OEM as production released.

Hood and trunk and must be securely fastened with hood pins, no holes allowed in hood except for hood pins - air cleaner may not protrude thru hood.

Cars with floppy or loose body parts considered as a safety hazard will receive mechanical black flag and will not be allowed to compete until requested repairs are made.

Bumpers:

OEM stock front and rear bumpers required with straps to prevent hooking.

Straps must bolt or weld to bumper and front fender or rear quarter panel to fill void to prevent hooking.

No sharp edges, all edges must be rounded to prevent cutting of tires.

No bracing or reinforcing of front bumpers, stock brackets may be welded to frame.

Pipe bumpers of any kind are not allowed.

Must have a visible chain loop for wrecker hook up on front and rear of car.

Engine:

Engines must be **STOCK**.

All casting numbers must remain on block and heads.

Only machine work allowed on block and heads is for cleanup purposes, no excessive milling, cylinder boring allowed.

4 valve relief cast or hypereutectic flat top or dish pistons only.

No stroking or de- stroking, connecting rods must be OEM stock and stock length for production year of engine. No high performance parts allowed.

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

Only hydraulic camshafts and lifters allowed - maximum lift of .410 at retainer.

Rhoads, Variable Duration or "Bleed Down" lifters are not allowed.

Only OEM stock production cast iron heads allowed, flat milling allowed, angle milling not allowed.

64cc combustion chamber heads allowed only with OEM or stock replacement dish pistons, 305 heads allowed only on 305 Cu.In. engines.

Porting, polishing, gasket matching, grinding or casting removal of any kind is not allowed.

Maximum valve size 1.94/1.50 on Chevy, 2.04/1.70 on Ford or

Chrysler. Maximum valve spring size 1.250 inch – All makes

Valves and retainers must be steel, no titanium allowed.

Only stud mounted stamped steel rocker arms allowed, no roller rocker arms or roller tipped rocker arms allowed, adjustable rocker arm nuts allowed.

Aftermarket valve covers allowed.

Intake manifold must be OEM stock only – Marine or aftermarket intakes not allowed, no porting, no gasket matching or polishing allowed. Oil pans must be stock.

Aluminum pulleys allowed.

Engines must remain in OEM stock position.

Stock rear dump cast iron exhaust manifold's only, No headers, No tubular, No center dump. No Turbo Chargers or Super Chargers allowed.

Engine must have been production released in year and model of car being raced. ■Exception - maximum 364 Cu.In. allowed in any production vehicle.

Any Chevrolet OEM cars which were production released with 400 CID engine may run the 400 CID engine, engine must be stock and use 76cc heads that came on 400 engines with no excessive milling and OEM stock or stock replacement dish pistons – no flattops.

This applies to all makes, any engine over 364 Cu.In. must have been mass production released in body style of vehicle and must remain OEM stock for year and make.

Transmission and Rear-End:

Manual transmissions not allowed.

Automatic transmissions and stock working torque converters with a minimum diameter of 12-inches.

No 10-inch converters or 10 inch converters with ring to meet 12-inch rule.

Must run stock diameter steel flywheel, no light weight flywheels. SFI approved Flexplate Safety Shield recommended. Rear-End

Must run rear end which came production released in model/year of car.

OEM Factory Posi-Track/Limited Slip or Locked/Welded rear-ends allowed, no Lockers allowed.

Driveshafts must be painted white and must have a 360-degree safety loop constructed of minimum 0.25-inch x 2-inch steel 6 inches behind front U-joint.

Suspension:

No suspension modifications of any kind allowed.

All suspension components must remain absolutely stock or OEM replacement for make, model and year of vehicle.

Stock appearing coil springs allowed.

If rear springs are OEM production designed as double pig tail configuration, must use double pig tail spring in OEM location using OEM mounts. No spring spacers allowed.

No coil over or helper springs allowed.

Lowering blocks are not allowed on leaf sprung cars.

OEM sway bars OK, no preload, must be same height on both sides and use OEM replacement components.

Shocks – No

Racing Shocks

All shocks must be OEM or over the counter stock replacements. Bilstein Shocks are not allowed.

Shocks will be eligible for a \$35.00 per shock claim – one or all four. Shock claim procedures:

- Top four finishers in main event are subject to shock claim.
- Must have raced on previous 2 consecutive race nights in order to claim.
- Must start and finish main event on lead lap.
- Claim must be made with US currency (cash) at Tech Pad within 10 mins. of the completion of the main event.
- Each driver may claim up to four shocks per year.
- Any driver may only have a maximum of 4 shocks claimed per year. 🚫Refusal of claim will result in DQ and forfeiture of all points.

Carburetor/Fuel:

Maximum of 1 (one) OEM production carburetor allowed.

Q-Jet or Rochester on GM, Motorcraft on Ford, Carter ThermoQuad/AVS on Chrysler. May not use spacers or adaptors with OEM 4 barrels.

1 (one) Holley 4412 500 CFM 2 Barrel may be used on all makes, 2-barrel to 4-barrel carb adaptor is allowed with a 1 1/4" max adaptor height including gaskets.

No mechanical 4 barrels, only vacuum secondary's allowed with no screws or reworked linkages, secondary's must be vacuum initiated.

OEM fuel injection allowed, vehicles with electronic fuel injection must control pump operation with OEM ECU or have an inertia switch that will shut off the fuel pump in case of roll over. Must have a clearly marked battery disconnect readily accessible from outside of car which disconnects 12 volts to fuel pump.

Electric fuel pumps not allowed on carbureted vehicles.

Aftermarket Air Cleaners Ok, maximum 14-inch diameter x 4-inch in height

Pump Gas or Race Fuel with no performance enhancing additives allowed, No methanol or smell enhancing additives.

Fuel lines which pass thru driver's compartment must be enclosed in a metallic conduit or pipe from front firewall to rear firewall. Fuel Cell

Racing Fuel Cell required and must be enclosed in steel can.

Must be mounted in truck and secured with a minimum of 2 (two) 2-inch X 1/8-inch steel straps.

Trunk floor pan *may not* be cut to allow installation of fuel cell.

Must have adequate fuel cell protection to prevent damage to cell from impact.

Fuel cell vents, including cap vent, must have check valves.

If fuel cell does not have aircraft style positive seal filler neck/cap system - a flapper, spring or ball type filler rollover valve is required. **Battery/Ignition:**

Battery - must be securely mounted in an approved enclosed battery box.

Battery may not be mounted in driver's compartment.

May be mounted in trunk, must be mounted inside frame rails.

Ignition - OEM HEI type ignitions allowed with stock replacement components. No magnetos, dual point distributors or aftermarket components. **Tires/Wheels:**

DOT approved passenger (P-Series) tires only - DOT approved tires labeled "NOT INTENDED FOR HIGHWAY USE" are not allowed.

Following tires are not allowed, studded tires, mud and snow tires, racing tires or racing recaps Maximum 8-inch wide x maximum 15-inch diameter **steel** wheels, bead locks or screws are not allowed.

1-inch lug nuts required, replacement of stock wheel studs with large diameter studs is highly recommended. Aluminum wheels *are not* allowed, even if OEM. **Engine Cooling:**

Radiators must be in stock position, and may be aluminum aftermarket.

Reasonable radiator protection allowed – NO CATTLE GUARD FRONT ENDS!

Subject to Track Inspection/Approval.

Ballast Weight:

No weight ballast of any kind allowed.

ALL cars are subject to track inspection and approval before entering into competition, and are subject to re-inspections.

Any car which is determined as unsafe will not be allowed to compete until safety issue is corrected and car is declared safe for competition. *STS reserves the right to clarify or amend these rules as deemed necessary.*

If you have questions or need further clarification, please do not hesitate to contact:

Ted Hamm	or	Kimsey Davis
STS Race Director		STS Tech Inspector
Ph. 361 739 8519		Ph. 361 877 0204