



# 2022 THUNDER BOMBER RULES

Rules and/or regulations set forth herein are designed to provide for the orderly conduct of racing events and to establish minimum acceptable requirements for such events. These rules shall govern all events, and by participating in these events, all participants are deemed to have complied with these rules. NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATIONS OF OR COMPLIANCE WITH THESE RULES and REGULATIONS. They are a guide and are in no way a guarantee against injury or death to a participant, spectator, or official. Harris Speedway retains the right to make all decisions and reserves the right to make any rule changes/amendments with dispute or appeal.

ALL VEHICLES, COMPETITORS, AND TEAMS SUBJECT TO HARRIS GENERAL RULES AVAILABLE AT THIS LINK:

[www.harrisspeedway.com](http://www.harrisspeedway.com)

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## **1. GENERAL**

- 1.1- 1968 or newer American made car.
  - 1.1.1- no station wagons, trucks, jeeps, or convertibles.
  - 1.1.2- no strut cars.
- 1.2- car must weigh 3,200 pounds with driver after race.
  - 1.2.1- any weight must be securely fastened with bolts.
  - 1.2.2- weight must be painted white with car number.
- 1.3- must run pump gas or racing fuel.
  - 1.3.1- no e 85, oxygenated racing fuel or additives.
  - 1.3.2- no nitrous or traction control.
- 1.4- anything not covered in the rules must be stock.

## **2. WHEELBASE / FRAME**

- 2.1- frame must match make and model or car, 1" tolerance +/- allowed
  - 2.1.1- no shorting of frame, must be stock.
  - 2.1.2- no x-ing or cutting.
  - 2.1.3- rear frames may be repaired from center of rear housing to rear bumper with square tubing, mounting points must stay stock.
- 2.2- wheelbase must match make and model, 1" tolerance +/- allowed
- 2.3- length between spring eyes must be stock.
- 2.4- engine must remain in stock location, aftermarket mount ok.

## **3. BODY - visual protest only**

- 3.1- cars must be neat in appearance.
- 3.2- steel or aluminum bodies ok but must retain stock shape and appearance.
  - 3.2.1- 42" deck height with no more than 4" of reek.
  - 3.2.2- must have deck lid.
  - 3.2.3- gutting of hood and trunk ok.
  - 3.2.4- front enter wheel wells can be cut or removed for clearance, but not excessive.
- 3.3- front and rear bumpers required.
  - 3.3.1- bumpers cannot exceed past quarter panel.
- 3.4- rubber nose and tail ok, must be stock appearing.
  - 3.4.1- no late model type noses, finder flares or cow scoop.
  - 3.4.2- rear of car must be closed, may use sheet metal. no holes or flaps.
- 3.5- replacement roof ok, minimum of 48" x 50".
  - 3.5.1- no slant roofs.
  - 3.5.2- must be steel or aluminum.
  - 3.5.3 - 13" minimum door and rear glass opening on left and right side.
  - 3.5.4- may use lexan in rear side windows.
- 3.6- breather must be boxed in on all four corners, cannot exceed 3" high.
  - 3.6.1- cannot pull air from inside car.
- 3.7- rear spoiler may not exceed 60" wide and no taller than 6".
  - 3.7.1- no spill plates, straps, or supports of any kind.

- 3.7.2- no side spoilers.
- 3.8- must have stock floorplan and firewall in original location.
  - 3.8.1- floorplan must extend to rear of driver's seat and must go from frame rail to frame rail.
  - 3.8.2- firewall must extend to doors with all holes covered.
- 3.9- may replace dash with sheet metal or aluminum.
- 3.10- interior may be boxed in with steel or aluminum.
  - 3.10.1- interior metal must not be higher than dash.
- 3.11- radiator must remain in stock location.
  - 3.11.1- aluminum radiator with fabricated brackets ok.
  - 3.11.2- no electric fans.
- 3.12- fuel cell must be mounted securely inside trunk with firewall between driver.
- 3.13- seat must be securely fastened to roll cage.
- 3.14- cars must have legible numbers on both sides and roof.

#### **4. SUSPENSION**

- 4.1- suspension and suspension mounting points must be stock for chassis unless otherwise stated.
  - 4.1.1- may use oem stock replacement for make and model.
- 4.2- may run racing springs with adjustable buckets.
  - 4.2.1- leaf spring cars may adjust rear shackles and have non adjustable 4" lowering blocks maximum.
- 4.3- may move top mounting perch or cut oem a-arm.
  - 4.3.1- tubular non-adjustable a-arm also ok.
  - 4.3.2- bottom perch and a-arm must remain stock.
  - 4.3.3- may use screw in ball joints, must be within 1/4 " tolerance. no adjustable or rebuildable.
- 4.4- may shorten top oem trailing arm or adjust perches for pinion angle only.
- 4.5- aftermarket bushing ok. No swivel, offset or monoballs allowed.
- 4.6- front shocks must be in stock location with 3" of travel up and down.
- 4.7- rear shocks must be in stock location with 3" of travel up and down.
  - 4.7.1- monte carlo shock must be within the outer edges of trailing arm.
- 4.8- Bilstein ak1043 on front - Bilstein ak1044, ak1054 on rear.

#### **5. REAREND**

- 5.1- gm 10 or 12 bolt or ford 9" floater ok
  - 5.1.1 - 1- 9" mounting points must be stock type with no adjustability. 3 1/2 minimum - 4 1/2 maximum from center of the axle tube to center of trailing arm bolt. (additional holes must be blocked off)
- 5.2- any oem gear ratio
  - 5.2.1- locked or limited slip allowed.
- 5.3- aftermarket axles allowed.
  - 5.3.1- no gun drilled or ball spline.
- 5.4- all components must be steel.

5.4.1- no lighting, gun drilling, scalloping, or polishing of any parts.

## **6. WHEELS / TIRES / BRAKES**

- 6.1- 15" by 8" (1/4 " tolerance) steel wheels
  - 6.1.1- may run beadlocks, must face out.
  - 6.1.2- may run offset rims and wheel spacers.
- 6.2- 8" towel city recaps split yellow dot tire only
  - 6.2.1- no treating or conditioning of tires.
  - 6.2.2- must punch 55 at any time.
- 6.3- stock brakes and master cylinders. Must have 4 wheel working brakes.
  - 6.3.1- dual master cylinder and adjusters allowed.
  - 6.3.2- oem brake calipers only.

## **7. IGNITION**

- 7.1- stock type ignition and hei distributor only.
  - 7.1.1- no billet or circuit board.
  - 7.1.2- no boxes or high performance parts.
- 7.2- no altering firing order
- 7.3- all cars must have kill switch within easy reach of driver with clearly marked on and off.

## **8. CARBURETOR**

- 8.1- 600 holley part #1850 only.
  - 8.1.1- may remove choke flaps only.
  - 8.1.2- no removal of choke horn.
- 8.2- use mr.gasket adaptor part #1932 (may use 2 .070 gaskets maximum.
- 8.3- No heat shields around carburetor. Dust shield mounted to air filter base allowed.

## **9. INTAKE**

- 9.1- stock cast iron only.
  - 9.1.1- no aluminum or holly pattern factory intakes.
- 9.2- must have vacuum fitting behind carburetor.

## **10. HEADS**

- 10.1- any open chamber head, but must meet the following criteria
- 10.2- no aftermarket heads.
- 10.3- may run stock replacement screw in studs or pin them.
- 10.4- may run aftermarket valve cover.
- 10.5- heads cannot be less than 72cc.
- 10.6- no angle milling.
- 10.7- stock or stock replacement valve for make and model.
  - 10.7.1- steel valves only.
  - 10.7.2- stock stem diameter.
- 10.8- valve springs can be z28 springs.

- 10.8.1- .194" max wire diameter.
- 10.8.2- shims can used under valve springs at a limit of .60 per spring.
- 10.8.3- may use offset locks, but not with shims
- 10.8.4- no cutting of valve spring pocket.
- 10.9- comp 742 retainers or stock allowed.
- 10.10- may have 3 angle valve job
  - 10.10.1- top 30 degrees or less
  - 10.10.2- seat 45 degrees
  - 10.10.3- bottom 60 degrees .250 maximum width.
- 10.11- rocker arms must be stock or stock replacement. 1.5 maximum. No self aligning rocker arms.
- 10.12- no porting or polishing.
- 10.13- no vortec parts.
- 10.14- may use poly locks.

## **11. CAM**

- 11.1- stock timing chain or cloyes c-3023x adjustable timing chain.
- 11.2- .390 - .410 lift
- 11.3- 112 lobe separation +/- 1 degree
- 11.4- advancing or retarding the cam in car with adjustable timing ok.
- 11.5- cloyes c-3023x only. No cam buttons.
- 11.6- stock cam or stock replacement cam only.
- 11.7- duration for intake + 2 degrees / - 10 degrees.
  - 11.7.1- .006 - 256 degrees
  - 11.7.2- .050 - 195 degrees
  - 11.7.3- .200 - 95 degrees
- 11.8- duration for exhaust + 2 degrees / - 10 degrees
  - 11.8.1- .006 - 261 degrees
  - 11.8.2- .050 - 202 degrees
  - 11.8.3- .200 - 106 degrees
- 11.9- must have 18" vacuum at 1000 rpm
- 11.10- hydraulic cam and lifters only.
- 11.11- cams cs-274 sealed power, ccs-2 melling, and comp cam 12-105-3 are stock produced cam.
- 11.12- all cams must pass the above specifications. Cams not meeting these specs will be illegal.

## **12. BOTTOM END**

- 12.1- any oem stock size engine - 363 maximum - .060 over bore maximum.
  - 12.1.1- no high performance engines or special order parts.
- 12.2- arp rod bolts allowed, must remain stock size - 3/8.
- 12.3- one piece rear seal block allowed.
- 12.4- must use stock replacement, low compression piston.
  - 12.4.1- cannot cut top of piston.

- 12.4.2- no flat top, 4 eyebrow piston. must be dished.
- 12.4.3- speedpro h423 dcp or h423 ncp replacement piston allowed.
- 12.4.4- no metric ring package.
- 12.4.5- pistons must be at least .009" in block.
- 12.5- no bottoming of lifters.
- 12.6- stock crankshaft.
  - 12.6.1- cast crank must weigh 48 lbs.
  - 12.6.2- no knife edging or lighting, etc....
  - 12.6.3- no stroke or destroke.
- 12.7- journals may be turned no more than .060". stock replacement bearing only.
- 12.8- rod width may not be less than .940. stock replacement bearing only.
  - 12.8.1- no powder rods.
- 12.9- stock timing chain gear set or cloyes c-3023x adjustable timing chain.
  - 12.9.1- no offset key ways.
- 12.10- balancer - 6 3/4 by 1" - no machining.
- 12.11- racing pulleys or v-belt racing pulleys allowed.
  - 12.11.1- no serpentine pulleys.
- 12.12- aluminum water pump allowed.
- 12.13- aftermarket fuel pump and fuel rod allowed.
- 12.14- aftermarket power steering allowed.
- 12.15- two piece timing covers allowed.
- 12.16- no remote oil filter or evac systems.
- 12.17- stock style fuel pump only.
  - 12.17.1- no rear mounted pumps.

### **13. EXHAUST**

- 13.1- steel headers only, standard 4 to 1 only. Must exit parallel to the ground.
  - 13.1.1- no tri-y or merge style headers.
  - 13.1.2- no stainless or coated headers.
- 13.2- may run up to 2' extension, must be same diameter as collector.
  - 13.2.1- must be straight with no type of restrictions.
  - 13.2.2- no mufflers.

### **14. TRANSMISSION**

- 14.1- must be stock with all working forward and reverse gears.
- 14.2- 350 or 400 turbo automatic allowed.
  - 14.2.1- must have oem working torque converter -11" minimum.
  - 14.2.2- no power glides
  - 14.2.3- transmission cooler allowed.
- 14.3- three speed straight drive, cast iron allowed.
  - 14.3.1- must have blow proof bell housing or scatter shield -1/8" steel.
  - 14.3.2- stock steel flywheel - 14 pounds minimum.
  - 14.3.3- stock type clutch and pressure plate - minimum 10.5" - pressure plate 12 pound minimum.

- 14.3.4- may use hydraulic clutch.
- 14.3.5- aftermarket throw out bearings allowed.
- 14.4- gears must be stock
- 14.5- no lightening, polishing, or coating of any internal parts.

## **15. DRIVE SHAFT**

- 15.1- must be stock for model of car or may run 2" drive shaft.
  - 15.1.1- must be steel.
  - 15.1.2- no carbon fiber or aluminum drive shafts allowed.
- 15.2- must be painted white.
- 15.3- "u" or square type safety loop on front of drive shaft assembly required.

## **PROTEST AND CLAIM RULE**

### **PROTEST BOTTOM -\$600**

- 1) remove crank weigh crank inspect journals, visual rod and piston from bottom crank will be weighed with gear and pilot bushing.
- 2) remove piston and rod from engine and visual crank and check journal in place - acceptance fee -\$200
- Track Keeps -\$200

### **PROTEST ANY 3 ITEMS -\$300**

- acceptance fee -\$100
- track keeps -\$100

### **CAM PROTEST - \$300**

- acceptance fee -\$100
- track keeps - \$100
- (protester chooses one lobe, tech reserves the right to look at others also)

### **PROTEST TIRE OR GAS - \$150**

- acceptance fee -\$ 150
- track keeps -\$150

- Tire punch at any time -\$25 (track keeps)
- (tech may refuse under some circumstances)
- Visual protest -\$25 (track keeps)
- Track has the right to keep any part deemed illegal.

Looking for small or unimportant errors or faults will not be tolerated or allowed. We are aware that this rule book may not cover every situation or issue. Officials have final say on ALL protested or claimed item issues.

***Tech man has final say.***