

# Thunder Valley Speedway

## B Stock Rules

### Sportsman/ State Wide Unified

**PASSENGERS FOR ALL CLASSES INCLUDING DEMO IS NOT PERMITTED**

### COMPETING MODELS

- 1955 or newer standard size American made cars. (2 or 4 door)
- Wheelbase **must** be stock; 102" minimum, maximum 116" (+ or - 1")
- Convertibles, station wagons, trucks, 4 wheel drives or front wheel drive are not permitted.
- Car **must** weigh a minimum of 2900lbs, after the race with the driver.

### Transponders & RACEceivers

- RACEceivers are not mandatory, but they are highly recommended.
- Transponders will be mandatory
  - Those running without one will not time in and will run in the rear.

### BODY

- OEM factory steel
  - Aftermarket aluminum and steel replacement panel permitted.
  - Homemade steel or aluminum panels permitted.
- Composite bodies permitted other than nose and tail cones are not permitted.
  - Composite hoods permitted.
- All bodies **must** be mounted so that the car remains as close to stock appearing as possible.
- Boxed interiors permitted with full floor pan in driver's compartment.
- **Must** have factory or plastic nose & tail pieces. (NO OPEN FRONT OR REAR ENDS)
  - Homemade nose and tail pieces permitted.
- **Must** have fenders, hood, and trunk deck lid.
- Basket type bumpers behind nose and tail piece permitted.
  - 1 ¼" black pipe *maximum* for bumpers.
- Spoiler height- 8" of material maximum and no wider than the car.
- Spoiler braces- 3 braces maximum.
  - a. **Must** be triangular in shape.
- Glass or Lexan windows are not permitted.
  - No additional Lexan attached to the body other than spoilers.
- Mirrors are not permitted.
- Nerf Bars **must** be level with the center of axles plus or minus 5".
  - Max 1" from body and a Max O.D. of 1".

## FRAME

- **Must** be stock.
- Reinforcement of Uni-body recommended.
- Rear of frame behind rear tires, no further forward than one inch behind factory seam, may be replaced in OEM location with two inch by three inch steel tubing with minimum 0.095 inch wall thickness, same length as material removed.
- Factory seam **must** remain visible.
- Uni-bodies **must** tie rear frame to the front frame.
- Frames may be “X” braced.
- **Must** have tow hooks/chains or suitable hook points on front and back.

## SUSPENSION AND STEERING

- Weight jacks are permitted.
- Racing shocks, front and rear are permitted
- Racing springs, front and rear are permitted.
- Tubular upper A-arms allowed, non-adjustable.
- Aluminum and/or titanium components are not permitted.
  - Magnets **must** stick to all components.
  - Shocks may be aluminum
- Heim steering links are permitted.

## BRAKES

- All 4 wheels **must** have brakes, and **must** be functional.
- Stock mounting locations.
- OEM style rear disc brakes permitted.

## REAR ENDS

- All rear ends **must** be locked, welded, mini spool or limited-slip differentials.
- Ford 9" allowed with all makes of cars.
- Floater and or Grand National rear ends permitted.
- Quick change is not permitted.
- Rear suspension **must** match the frame with stock mounts.

## ROLL CAGE

- All cars **must** have a 6pt steel roll cage protecting the driver's compartment. (See Safety rules for specs)

## WHEELS

- Race wheels recommended, stock wheels allowed if drilled for 5/8" stud 2. 5/8" wheel studs required.

- *Maximum* wheel width 8 inches.
- Bead locks are acceptable, on all wheels.

## **TIRES**

- Lug or studded tires are not permitted.
- Race tires are permitted ~ 8" max width.
- Use of DOT "Doughnut Tires" is not permitted.

## **ENGINE**

- Small blocks only / 410 CU Maximum.
- LS Engines are permitted.
- Drivetrain **must** be in the centerline of the car.
- Engine *may be* set back no further than the #1 spark plug inline with the front ball joints.

## **BLOCK**

- Standard production OEM cast iron V-8 blocks or aftermarket OEM style with Nodular iron caps only.
- Aftermarket main caps are not permitted.
  - Main studs and cap straps are permitted.
- De-burring block and plugging deck to strengthen block permitted.
- Plug or vent and screen oil drain holes in lifter valley permitted.
- *May* surface block.

## **CRANK**

- Steel cranks **only**. (Cast or Forged)
- Stroking or de-stroking permitted.
- Lightening or knife edging crank is not permitted.
- Turning down counter weights or drilling crank pins are not permitted.
- *May* balance the engine.

## **RODS**

- Steel rods **only**.
- High performance rod bolts and nuts permitted.
- Polishing rods permitted.
- Press-in or floating pins permitted.

## **CAM/LIFTERS**

- Flat tappet cam permitted.
- Solid or Hydraulic lifters permitted.
- Hydraulic roller cam permitted

- **SOLID ROLLER ARE NOT PERMITTED**
- Firing order **must** be stock
- Lifter retaining tray permitted
- Lifters **must** be OEM diameter for the engine being used.

## **TIMING**

- Aftermarket belt drives are not permitted.
  - Aftermarket chain or gear drives permitted.

## **HEADS**

- Any Stock or Aftermarket iron head are permitted.
- Stock OEM aluminum heads permitted.
- *May* surface heads. (No CC limit)
- Steel valves **only**.
- Maximum valve size for all engines;
  - Intake 2.020, Exhaust 1.600.
  - Allow for Ford stock valve size.
- Minimum valve stem diameter of 11/32" for SBC.
- Under cut stems permitted.
- Any valve guide type permitted.
- Any diameter valve springs permitted.
- Any valve keepers permitted.
- Steel retainers **required**. Titanium is not permitted.
- Guide plates and screw in studs permitted.
- Roller rocker arms permitted at any ratio.
- Aftermarket shaft or pedestal mounts rocker arms on Chevy are not permitted.
  - If standard production heads came with shaft or pedestal mount rockers, they will be permitted.

## **HARMONIC BALANCER**

- Fluid damper permitted.

## **WATER PUMP**

- Cast or aluminum permitted.

## **OIL SYSTEM**

- Wet sump system **only**.
- Dry sump systems are not permitted.
- Racing oil pan and/or windage tray permitted.
- Remote oil filter and cooler permitted.

## **FUEL PUMP**

- Mechanical or electric pump permitted.
  - Electric pumps **must** have a shut off switch clearly marked.

## **FLYWHEEL**

- Steel or aluminum flywheel permitted.

## **CARBURETOR**

- Limited to a single four or two barrel carburetor.
- 750 CFM maximum.
- Fuel injection, turbo, or blowers are not permitted.
- Polishing or porting of carburetors are not permitted.
- On standard type Holley's choke, the horn *may* be removed.
  - No lower than the breather gasket flange.

## **INTAKE**

- Any single carburetor intake permitted.
- A single one inch size carburetor spacer will be permitted.

## **DISTRIBUTOR**

- Advance kits permitted.
- Ignition booster or amplifier to ignition permitted.
- Dry cell battery pack ignition is not permitted.
- Alternator, if used, **must** be wired to the battery.
  - No loop system wiring to the distributor.

## **STARTER**

- All cars **must** have a starter in working order.
- Only one (1) automotive type battery is permitted

## **EXHAUST**

- Collector type headers (long tube) or cast iron manifolds permitted.
- 180 headers are not permitted.
- Manifolds and/or headers **must** exit downwards.
- Exhaust **must** exit the rear of the transmission cross-member under the rear of the car.
  - Recommended 90 deg turn downs.
- Maximum 3" exhaust pipe.

## **CLUTCH**

- Multi-disc clutch permitted.

## TRANSMISSION

- OEM standard production auto or manual transmission
- **Must** have at least one forward and one reverse gear in working order.
- Bert, Brinn and Falcon transmissions are approved. **Must** use a stock style flex plate.
  - **Must** use a steel bellhousing.
  - Reverse mount starters or bell housings are not permitted.
- Automatic transmission permitted and coupler allowed.
- Automatic transmissions, recommended to have scatter-shields.
- Manual transmissions **must** have explosion-proof steel bell housings.

## FUEL CELL/FUEL

- **Approved racing fuel cell required.**
  - Max 32 U.S. gallons.
- **Must** be securely mounted with two - 1" metal straps in the trunk area of the car, inside metal box, if the floor pan has been removed.
- If the floor pan has been removed, the fuel cell is to be mounted no lower than the top of the rear axle.
- **Gas only.** Octane booster is permitted.
  - Alcohol (this includes E85, no nitrous oxide, no nitromethane, or other additives) is not permitted

## HEADERS

- Headers are permitted to go outside of the fenders

## TRANSPONDER

- **Must** be located within 12 inches of the Firewall,
- All cars and drivers are **required** to follow GENERAL RULES listed in the front of the rule book
  - \*please note: quick change rear ends still under review

## Numbers

- All race vehicles are **required** to have numbers on both sides of the vehicle, as well as the top of the car.
  - **Must** be clear and visible.

## TRANSPONDERS

- Must be located within 24 inches of the firewall
  - Recommend welding a tap to the frame in the front of the upper control

arm on the inside of the frame.