

2018 Wenatchee Valley Super Oval Thunder Hobby Rules!

THIS DIVISION is designed to promote greater interest in stock car competition with the intent to allow folks to be a part of our exciting sport without spending a great deal of money. Drivers with any experience level are invited to race in this division, however your experience level WILL be noted as to your conduct on the track. More experienced drivers are encouraged to make every effort to help less experienced drivers find the confidence to compete. **This class is a hobby class** and every effort is being made to control the expenses and level of competition. If the rules for this class seem too restrictive, you should move to another class. Decisions on interpretation of the rules by the technical director will be final. No changes from a stock production automobile or component parts, except as listed. In interest of fair competition weight can and will be added at any time to level the playing field.

AMERICAN MADE rear wheel drive car 1955 through 2005. No convertibles, no wagons, or fox body mustangs, no gen 3 or 4 Camaros or Firebirds, no two seaters, and no trucks. Ford to Ford, GM to GM, Mopar to Mopar, etc. Minimum wheel base 105". Wheel base must remain within 1/2" of stock.

ENGINE: BLOCK: OEM cast iron passenger vehicle production block only. No GM Bowtie, Ford SVO or Chrysler W components allowed. GM approved block numbers are: 10105123, 10066034, 3892657, 3914660, 3914678, 3932388, 3932386, 3956618, 3970000, 3970006, 3970010, 3970014, 10066033, 10066036, 10243880, 14010207, 14010209, 14010287, 14016376, 14016379, 10054727, 14088528, 14088548, 14088552, 14093638, 14101148. Stroke must match block. . Maximum 361 cubic inches (GM); 363 (Ford); 370 (Chrysler). **You may run 400 Cubic Inch motors but you must declare and add 200# no strockers!** Violation of cubic inch limit will result in disqualification, loss of all season points. Maximum compression ratio is **eleven to one**, no tolerance. Compression ratio checked using Whistler and cubic inches checked using pump, OR by visual inspection of part and/or casting numbers, pistons, etc (Tech Directors option which method is used). Flat top or dish pistons only, no gas ported pistons. OEM or OEM appearing replacement steel crankshaft only – cannot be lightened. No aero wing, bullnose, knife edge, undercut or drilling of second or third rod throws. No stroked cranks. OEM or OEM cast appearing replacement steel rods only – GM 5.7 or 6 inch. Cap screw allowed. No splayed main caps. Conventional hydraulic cam and lifters only, cannot alter lifter bores. OEM firing order cannot be changed (GM: 1-8-4-3-6-5-7-2). May use oil restrictors. ‘Wet’ sump oiling system only. Steel stock or racing oil pans allowed.

CYLINDER HEADS: Steel only. Must be **unaltered** approved Passenger Car OEM. No GM Performance or Bowtie. Maximum size valves on ALL GM heads are (2.02 inch intake and 1.60 inch exhaust.); Ford - no SVO heads; Chrysler - no W-2 heads, 360 cubic inch heads only. No pocket porting, polishing or unapproved alterations allowed to any cylinder head or intake, disqualification and loss of all season points if non-compliant. Guide plates, screw-in shouldered studs (GM 0.375 inch max) and poly locks allowed. No stud girdles. **GM - 1.250 inch (± .015 tolerance)** maximum O.D. valve spring. INTAKE: Unaltered, approved OEM cast iron, low-rise,

two or four barrel intake, no marine or bowtie. Unaltered OEM type harmonic balancer only. OEM type steel or aluminum water pumps only. Aluminum pulleys are ok.

STOCK STAMPED steel rocker arms only. Long slots allowed No grinding on rockers. **NO roller rockers or roller tip arms allowed.**

Exhaust manifolds must be stock OEM from a standard production car. No headers or header type manifolds allowed. Maximum inside diameter on all exhaust parts is 2 ¼ inch, no polishing, grinding, or acid dipping allowed. **(No Corvette, Bow Tie, Marine/boat, or Z28 exhaust manifolds).**

Stock or aftermarket mechanical fuel pumps allowed in stock location **No electric fuel pumps.** No fuel cooling devices on or around fuel system.

Stock steel or cast iron flywheels only. **NO** aluminum or racing flywheels or clutches allowed. Must be stock pressure plate and single disc clutch only. 10 1/2 minimum diameter.

Stock production Holley 4412 (500) 2 barrel carburetor. Holley HP not approved. Air cleaners are required. 14 inch diameter minimum by 3 inch tall. K and N Filter ok. Maximum 1.5" adapter for carburetor.

Must run a stock transmission. You can run manuals or automatics.

Must run stock clutch/flywheel assembly, or working stock torque converter. No direct drive automatics.

One hundred eighty degree (180degree) scatter shield required on all cars mounted under floor boards. Reinforced belt material is acceptable three- eighths inch (3/8") thickness minimum. Entire transmission hump must be covered if belt material used. Scatter shield must run from firewall to rear of transmission on all automatics. Stock steel or cast iron flywheels only. **NO** aluminum or racing flywheels or clutches allowed. Must be stock pressure plate and single disc clutch only. 10 1/2 minimum diameter.

BASE WEIGHT – All cars are subject to a maximum **55% left side weight.**

Minimum weight without penalty = 3200 lbs

ALL CARS must be neat appearing, no sharp or protruding edges. Any car deemed unsafe by tech director will not be allowed on the track until corrected.

REAR SPOILER of 6 inches in height allowed no wider than the trunk lid plus 3 inches each side, (clear Lexan recommended)

FIRE EXTINGUISHER that all cars carry a fully charged dry chemical or CO2 fire extinguisher of at least two (2 ½) pound minimum and be in easy reach of the driver

BATTERY is to be securely mounted and enclosed behind driver seat. Subject to the Technical Director's approval.

Battery needs to have a master kill switch within reach of the Technical Director.

From the driver's window.

ALL GLASS WILL be removed except full wind shield; all cars will have two vertical bars of (1/2" X 1/2") in the center of the full windshield frame, (1/2") diameter pipe is OK. Windshields will have retainers - two (2) on the top and two (2) on the bottom. If full windshield is removed, a full 3/16 Lexan windshield must replace it.

Hood must be pinned and doors welded shut. Trunk lids must be pinned not bolted. Minimum three hood pins across front and two rear hood pins

MUFFLERS WILL be securely fastened and in working order. Loud mufflers will not be tolerated, ninety- five decibels at one hundred feet (95 Db at 100'). All exhaust must be in stock location; exhaust must extend three feet past the muffler, and exit underneath the car behind driver downward or exit behind driver to the outside of car.

BUMPERS WILL be of stock type, both front and rear and in stock location, with no sharp edges. The bumpers must be strapped or bolted to fenders. Aftermarket front and rear bumper covers allowed tubing bumpers behind bumper covers of no less than 1 3/4 tubing is ok. Must be approved and neat.

CARS MUST have all four (4) brakes in working order and in line brake bias adjuster is allowed, any stock master cylinder. After market clutch pedal is approved

STOCK REAR ends only. Any OEM stock drum brake rear end is allowed in any make car. Open, welded, or spooled. NO floaters, limited slip, or locker rear ends of any kind. Any car found with Non-compliant rear end will be disqualified with loss of all season points and money. Aftermarket RR axle is recommended.

FUEL CELLS No larger than 16 gallons recommended!

a. The bottom of the fuel cell must be (10") above the ground and be a minimum of twelve inches (12") from back bumper and mounted securely in the center of the trunk area, must be encased in minimum of 20 gauge steel shell subject to tech approval. 16 gallon cell recommended 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. Fuel lines through driver compartment must run through metal pipe or metal conduit. One fuel filter allowed, cannot be in driver's compartment.

b. The filler neck must not protrude from the body shell.

c. An **Oberg Anti-Siphon Fuel Line Safety Valve** is highly recommended

FULLY CONFORMING roll cages are required. Front hoops allowed. External driver's door nerf bar with no sharp edges is optional. All bars are subject to the Technical Director's approval. Roll bars are required and must be of at least (1- 3/4") x .095 wall thickness tubing for main cage door bars and halo, front and rear hoops and bracing bars may be 1 1/2" (.095) All cages must be constructed of good quality material with neat appearing welds and gussets. No screw couplings allowed. Roll bars must be welded or securely fastened inside the car to the floor pan and braced on the rear main bar. Uni-Body cars may connect Sub frames. All roll cages need to have four (4) door bars on the driver's side connected with three (3) vertical bars in or

minimum 1/8 inch steel plating top to bottom full length door bars, with a minimum of two (2) door bars on the passenger side. All cars must have a rear safety bar attached to the main cage or run from frame rail to frame rail to protect fuel cell.

BODY, FLOORS and firewall must be stock in structure and appearance. Minimum of 20 gauge steel can be used to cover holes or previously damaged cars. Front fender wells and inner hood skin may be removed. Front fenders may be gutted. Doors, front fenders, quarter panels may be fabricated but must be a minimum of 20 gauge steel, must be stock appearing and be securely fastened. Roofs, A and B Pillars must be stock, may be gutted. Bumper straps are required on front and rear bumpers where possible. Rear trunk lids may be gutted. Aluminum hoods and trunks lids are allowed if they are production for year, make, and model of stock car being raced, but may not be gutted. Rear fender wells and trunk floor may be removed up to the center line of the rear axle. All body trimming is subject to the approval of the Technical Director. Previously raced cars that have been excessively gutted in the past have the opportunity to replace hump and floorboards with 20 gauge steel in a neat and sealed solidly mounted manner. Rear firewall and package or speaker tray must 20 gauge steel and sealed. Wheel wheels must have crush panels to body.

DRIVE LINES will have a metal strap or chain loop, twelve inch (12") maximum behind front universal. Strap or chain must not exceed three inches (3") below the drive line. Painted **white** for safety and made of steel.

RADIATOR MUST be in stock location, you may install radiator protector; Core support can be stock or fabricated. Must be inside of front bumper vertical line of the car* NO Antifreeze allowed. A minimum of a 1-gallon steel overflow can will be mounted securely to passenger side firewall. Electric fans are approved.

TIRES AND WHEELS; Tires must be mounted on a 15 X 7 or 15 X 8 race designated steel stock car style wheel with 2, 3 or 4 inch back space. No tire relief bleeder valves allowed. NO tire soaking or tire softeners allowed. Any tire that is not within 5 points average of factory specs will be confiscated. Minimum 5/8 inch wheel studs are required. Wheel stud thread must protrude through the wheel nuts. Wheel spacers are allowed up to a maximum 1/4 inch per wheel.

TIRE RULE, approved in 2018 are Used Hoosier 970, 790 or 800 treaded or grooved racing tire. **WVSO Spec maximum 5/32 tread depth.**

STOCK SUSPENSION only, heating or cutting springs allowed, caster and camber may be adjusted, rated racing springs allowed. No weight jacks front and rear, Adjustable spring buckets allowed. No ford lower control arms on Chevrolets. Maximum Camber allowed is 2" measured between top and bottom lip of wheel with a carpenters square.

a. Must run stock or stock replacement shocks in stock location with stock hardware for chassis. No adjustable racing shocks, no split valve shocks, no adjustable struts, KYB Gas Shock is approved.

b. 5" minimum ride height at bottom of lowest part of frame (4" for nova's with nova front clips). Cars may be skirted between wheel openings but may not be lower than 5" without driver in car.

c. Stock sway bars and sway bar mounts and bushings. 1-1/4" maximum stock sway bar. May have all thread adjuster on one side only.

d. Rear adjustable shackles allowed. Lowering blocks allowed. No Leaf spring sliders.

e. minimum 5 inch coil springs, rated springs approved, front pocket spring adjusters allowed...must break ball joint to adjust.

ALL ADDED weight must be securely mounted and **painted white** with the **car number clearly on each piece**. Minimum welded or (2) 3/8 bolts through ballast.

ALL CARS must be self- starting at the start of program, and may only run one class per day.

RACE CARS will not be permitted to carry ANY onboard computers, micro- controlled processors, recording devices, cell phones, electronic memory chips, digital readout gauges or traction control devices.

CAR NUMBERS are required on drivers' and passenger side minimum of 24" tall WITH A 30" Roof number readable from passenger side.

TRANSPONDERS need to be safely mounted 10 to 15 inches behind the centerline of the rear end and on the passenger side frame rail.

DRIVER PROTECTION: All bars in the immediate reach of the driver must be padded with approved roll bar padding. Pipe insulation is NOT approved.

ALUMINUM RACING seats with headrest is required and must be bolted to the roll cage and NOT to the floor pan or frame. Containment seat is highly recommended.

A MINIMUM of (5) five point competition seat belt, shoulder harness and sub belt of approved racing type must be used. Minimum (3) three inch materials must be used for all belts. The belts and harness must be bolted to the roll cage with a minimum of 3/8 grade 5 bolts with nylock nuts. Shoulder belts must be even with or slightly below the driver's shoulders. Metal to metal buckles are required on all belts. The belt and harness installation must pass safety inspection and may be ordered replaced by Tech Director. Belts can be used for a maximum of 6 years after date of manufacture. Belts expiring during the race season can be used until the end of the season. NO frayed or weather beaten belts. No date on belts buy new ones!

THE CENTER top of the steering column must be padded with a minimum of (2) two inches of material such as foam rubber or roll bar padding. A quick dis-connect steering wheel is strongly recommended. Racing type Quick Release window net on drivers' side is required.

DRIVERS ARE required wearing a minimum of a single layer Nomex driving suit with Nomex underwear. Driving suits with a higher SFI rating are strongly recommended. Racing approved racing boots or shoes and gloves must be worn at all times when on the track. Nomex socks are mandatory with racing shoes. NO running shoes.

DRIVERS ARE required Snell 2005 or newer SFI/SA rated helmets, with full head coverage, visors down at all times when on the track. Helmets must accompany the car at time of inspection. Nomex balaclava is required if open face helmet is used. Head and Neck Restraint Systems are highly recommended. ***MOTOR CYCLE HELMETS ARE NOT APPROVED!***

CAR NUMBER Registration:

We are trying to not have duplicate numbers, **please register your 2018 car number if you plan on racing with us in 2018**. Contact Mike Easley on Facebook or call 360-352-0375 for rules inquiries. The rules will be enforced as written to the best of our ability.