



2023 NHSTRA MINI STOCK RULES

These rules will be enforced to ensure that all who participate have an opportunity to be competitive. Anything not covered by these rules must be approved by NHSTRA Officials. Upon inspection, NHSTRA Officials may penalize, fine, suspend, withhold money, and/or points, confiscate parts, or disqualify any competitor for rule infractions. If a competitor is disqualified for using illegal parts, the competitor may lose all points accumulated prior to and including date of disqualification under the discretion of NHSTRA Officials. The use of carbon fiber or titanium parts are not allowed. Any questions regarding rules should be addressed with the NHSTRA Officials, prior to assuming legality. It is the competitors' responsibility to read and understand all rules. It is the competitors' responsibility to declare what engine option they are competing under. The NHSTRA Mini Stock Division is the NASCAR Feature Division III at Monadnock Speedway and requires ALL competitors to hold a NASCAR feature division license to compete.

Eligible Models- 1977 thru present mass produced four (4) cylinder passenger cars, two (2) or four (4) door models allowed. No convertibles, mini vans, or trucks. No rear, mid, rotary, or opposed engines allowed. No AWD, AWD conversions, or 4x4 models permitted. Prior NHSTRA/WMMP Officials pre-approval of any questionable make/model required. **STARTING IN 2024, NO TWO (2) SEATERS, ALL CARS MUST HAVE HAD OEM REAR SEATS. FOR 2023 THESE CARS WILL BE ALLOWED TO COMPETE AT**

**HUDSON, MONADNOCK (NHSTRA TRACKS UNDER ¼ MILE), OR A
ANNOUNCED SPECIAL EVENT.**

Body-

- A- Bodies: Roof MUST be steel; Mustang may use factory replacement fiberglass roof. Doors, fenders, quarters, and trunk-lid may be steel or aluminum and MUST be stock in appearance and size. Hoods must be stock, aftermarket steel, or fiberglass, NO ALUMINUM hoods will be permitted, even if OEM. Tail section of car must be closed with no cut-outs or openings permitted. Afternoon nose and tail pieces are allowed. Any car using a Fiberglass roof will be required to have a steel (22GA minimum) roof plate. All bodies are required to be four (4)" inches from the ground. ¼" allowance will be given. Installation with dzus, or ¼ turn fasteners.
- B- Aftermarket Bodies: AR Bodies Muscles car bodies allowed; must match chassis manufacturer. Body must be used in full, no mixing and matching of other panels/pieces.
- C- Inner Panels: Stock firewall and floor-pan must be intact. Floor-pan may be fabricated but it MUST cover entire floor area between front and rear firewalls. Floorboards not required to match side to side. Firewalls MUST remain in stock locations. Bodies from any manufacturer can be used. Bodies may be fabricated.
- D- Spoilers: Maximum 58" x 5" MUST be placed aft of the trunk lid or aft of the rear window base. Spoilers may be constructed of Lexan, steel, or aluminum. Stock spoilers allowed. Metal spoilers must be made from three (3) separate pieces with none of the three exceeding 20" inches in length. Spoilers WILL NOT extend beyond width of the deck lid.
- E- Windows: Lexan windows may be used. Quarter, and rear windows allowed but not required. Undamaged stock front windshields may be allowed with prior NHSTRA/WMMP Officials approval. Glass windshield is permitted as long as it is factory style safety glass.
- F- Rub Rails: Exterior rub rails are allowed only between the front and rear tire and MUST stay in contact with the body their entire length. Steel rails MUST be secured to the cage in two (2) places. Plastic rails may be riveted to body with a minimum rivet spacing of twelve (12)" inches.

G- Roof Rails: Two (2) roof rails are permitted lengthways of the car. Rails can be no longer than the steel roof panel. Rails MUST be no higher than 1 ½” above the surface of the roof. Rails may be made of steel, aluminum, Lexan, or plastic and must be securely fastened to the vehicle.

Brakes-

A- Brakes: Four wheel brakes must be in working order. Brakes must be OEM or OEM replacement type. **No exotic, aftermarket, or racing calipers allowed.** Cars can be converted to rear disc brakes using factory materials, factory materials can be used from ANY make and model. Aftermarket brake pedal assemblies with bias control are permitted. No aluminum brake drums allowed.

Chassis-

- A- Stock chassis may be tubed in front of strut towers, but must remain unaltered from strut or shock location to rocker panel. Chassis may be fabricated with tubing beyond rear strut or shock towers. Tubing can be used to connect front and rear sub frames, must be identical side to side. Tubing is allowed to pass through either firewall. Caster/Camber plates are permitted and the top of the strut tower may be slotted for adjustment.
- B- Roll Cage: Main cage must be constructed using a minimum of 1 ½” x .095. Frame tubing must be a minimum of 2” x 2” x .125. Main cage is defined as “any area between factory firewalls”. Drivers door bars must be plated (24 gauge minimum) or covered (.250 minimum) to reduce the risk of driver injury.
- C- Strut Towers: Strut and shock towers must remain in factory locations., no movement of any factory placed suspension or chassis mounting points is permitted. No modifications of stock sub frames allowed, i.e. cannot be cut open, tubed inside and resealed. Engine cross member must be OEM and unaltered.
- D- Excessive Tube/Repair: Any car using excessive tube to reinforce chassis from rust or crash damage will be subject to additional weight

penalties. Weights will be handled on a car by car basis by NHSTRA/WMMP Officials.

Drivetrain-

- A- Transmissions: Transmission must be a stock unit for make; gear ratios may be swapped from other factory units. Must have four (4) forward gears in working condition. 5th gear lockouts may be used but will need to be removed for transmission inspections. Cars with swapped engines may use transmission that matches engine, if it differs from the model.
- B- Driveshafts: Driveshaft must be steel and painted white. Shaft MUST have one (1) driveshaft loop 18" inches of the forward u-joint.
- C- Clutch: Clutch must be functional, single disc, or puck style clutch with a stock finger type pressure plate.
- D- Flywheel:(Option 1) Must be steel and weigh a minimum of 10lbs. Measured with NHSTRA/WMMP tools. Must retain stock diameter. Weight will include mounting bolts.
 - (Option 2) Flywheel may be ANY material, 8lbs. minimum weight, must be SFI Certified. Dodge Neon: Factory riveted clutch/flywheel assembly. Must weigh minimum of 22lbs including flex plate and mounting bolts.
 - (Option 3) No Flywheel rules will be enforced with the acceptance of a 100 lb. penalty. Cars must declare this Option 3 rule before their first event of the season. Cars that have bypassed the flywheel rule and accept the 100 lb. penalty will be identified with the letter "F" on the windshield.

Engine-

- A- Engine Identification: All cars MUST have their engine size and minimum weight posted via vinyl decal or paint on either hood or windshield of the vehicle.
- B- Engine Setback: All cars with swapped engines mustang cars must have transmission output shafts inline with center of front hubs.
- C- VVT: All VVT equipped cars will add 75lbs. All cars with a variable valve timing system will be required to use make specific engines. Cylinder head and block must match. No mixing of VVT engines, heads or blocks.

- D- Block: Blocks must be stock for make. 2540cc maximum displacement. (Actual Displacement, not advertised engine size will determine the minimum car weight). Maximum overbore .060. Compression ratio will not exceed 12 to 1. No stroking/de-stroking of engine.
- E- Heads: Milling of head is allowed. No porting or polishing of any kind. The cylinder head must be stock for make. The combustion chamber must not be modified at all. Ford 2.3 will be allowed to use Race Engineering Cast Iron replacement head.
- F- Valves: Oversized replacement valves allowed, must be used in conjunction with factory sized valve seats. Stainless steel OE replacements allowed. Valves may use narrow stem. Ford 2.3 will be allowed to use 1.89/1.59 valve combination.
- G- Crankshaft: Crankshaft MUST be OEM stock, no knife edging or weight removal allowed. No aftermarket cranks. Crankshafts may be balanced. Aftermarket pulleys are allowed.
- H- Camshaft: Camshafts 16v max lift .470", 8v max lift .550" at the valve, flat tappet or FACTORY roller style valve train. Valve train must match make, model, and year of engine declared. Lift is measured at the outermost portion of valve retainer. VTEC will require camshaft removal for lift inspection. ALL LOBES will be checked on VTEC equipped cars.
- I- Pistons & Rods: Must be stock appearing. No light weight piston or rods allowed.
- J- Carburetor: Holley 7448 350cfm Max, any brand may be used. Choke plate MUST be removed to allow inspection. One (1)" inch spacer or adapter between intake and carburetor allowed. Carburetors are subject to outside flow-bench testing for flow capabilities. Carburetors found illegal will be confiscated.
- K- Fuel Injection: **Fuel injection is allowed. Any size fuel injectors may be used. Any size throttle body may be used for fuel injection.**
- L- Air Filter: Air filter may stick above the hood but will need to be covered so the filter is not exposed to open air. EFI cars must leave air filter in engine bay, filter must not extent ahead of radiator. Air filter spacer in between carburetor and filter is allowed up to one (1)" inch. One filter only. **Three (3)" maximum diameter intake tube, minimum length not including air filter fourteen (14)".**

M-Intake Manifold: No porting or polishing of any kind. MUST use a stock intake for make and engine used. Gasket matching is legal but you MUST use Fel-Pro Gasket for Engine Declared, maximum gasket match with will be ½" (0.500"). 8 Valve cars may use aftermarket or fabricated intake manifold.

Engine Cooling-

- A- Any radiator may be used and MUST be mounted forward of engine.
- B- NO ANTI-FREEZE ALLOWED.

Exhaust-

- A- Headers will be allowed; Ford will not be allowed to use Thunder Valley or any 1 3/4" primary tube header. 2.5" maximum exhaust pipe diameter after muffler. All cars will be required to run a muffler. Cars that are deemed to loud (96dB) for competition will be asked to conform. Failure to meet such requests will disqualify any finishes made in that event.

Fuel-

- A- Fuel Cell: Fuel cell maximum 12 gallon capacity. Fuel cell must be enclosed in a steel container. Fuel cell must a rear crush bar in case of accident. Fuel cell must have steel firewall mounted in between the fuel cell and driver (separate from drivers compartment). Fuel cell must be mounted behind centerline of rear axle unless "PRIOR" NHSTRA/WMMP Officials approval. Fuel cell must have a cage constructed of a minimum one (1)" inch square tubing. No aluminum may be used in front or rear firewalls.
- B- Fuels lines permitted to run through the drivers compartment as long as they are fully encased in conduit and labeled.
- C- Fuel Pump: Electric fuel pump must have switch clearly marked. Electrical ON/OFF switch must be within reach from outside of car. Cars running fuel injection will require a oil pressure shut off switch.

Ignition & Electrical-

- A- Starter: Any starter in working condition. Starter must engage the flywheel, small diameter clutches utilizing a flex plate are NOT allowed.
- B- Ignition: Stock ignition systems only, no magnetos or MSD systems allowed. High output coils allowed if stock appearing. Aftermarket distributors may be used. Must run from factory electronics. NO MSD ALLOWED.
- C- EFI: Fuel injection computer must be stock OEM style computer, factory computer upgrades allowed. Chips and Flashes allowed to re-tune settings. Must use the actual factory computer unit. ** NO STAND ALONE. **
- D- Firewalls/Wires: All wires and/or fuel lines that cross through any firewall will be required to maintain a rubber grommet to prevent arcing.
- E- Battery: Battery must be located forward of fuel cell. Battery must be secured by a minimum of two (2) fasteners. It is suggested that the battery not be mounted within the engine compartment.

Lettering/Appearance-

- A- All cars must be numbered. All numbers must be confirmed with NHSTRA/WMMP Officials. NHSTRA/WMMP Tracks reserves the rights to reassign numbers to avoid scoring duplications.
- B- All cars must have numbers on both doors and roof. All numbers must be a minimum of 18" and must be registered and approved. Roof numbers must face the passenger's side. All numbers must be distinctly contrasting to the color of the car. No reflector or metallic numbers. All numbers to be subject to visual approval of NHSTRA/WMMP Officials.
- C- Identification: All cars leave the top four (4)" of windshield blank for NHSTRA identification. When the registration is paid (single race or full season) an identification banner will be given for the car. If the identification banner is not run a forfeit or point/purse may be given.
- D- All bodies must be neat appearing; NHSTRA/WMMP Officials will have final judgement. All body panels and edges must be smooth to help reduce unnecessary tire cuts. All panels must meet four (4)" minimum height (this includes nose, side skirts, and tail pieces). Bodies are allowed to be gutted and small modifications may be done to meet

chassis and tire installation. It is recommended bodies appear as stock as possible to allow for fan identification.

- E- All cars must have their total weight and left side weight decal on the right front corner of the roof, and their NHSTRA Safety decal on the left front corner of the roof.

Mirror-

- A- Mirror: **Mirrors allowed.**

Rear Ends-

- A- Rear End: Rear end needs to be factory for make and model used. No quick change or 9" units allowed.
- B- Assemblies: No aluminum components allowed.
- C- Control Arms: Control arms may be reinforced, off-set bushings allowed. Fabricated heim joint arms allowed, ¼" adjustments plus or minus allowed.
- D- Camber: No camber changes allowed to rear wheel drive solid (non-independent) rear ends.

Ride Height-

- A- All cars must meet a **four (4)"** suspension ride height. Ride height will be measured at factory floorboard next to unibody. If floorboards are not in stock location, the lowest point of the frame rail will be four (4)" inches.

Safety: POSTED IN RACE PROCEDURES

***** Competitors are solely and directly responsible for the safety of their race cars and racing equipment and obligated to perform their duties (whether as car owner, driver, or crew member) in a manner designed to minimize to the degree of possible the risk of injury to themselves and/or others.*****

Seat-

A- Seat: A Full containment racing seat must be used. Bolt on containment systems allowed. Containment system is defined by a one (1)-piece two (2)-side reinforced head rest, and two (2) reinforced shoulder rests. Headrest must be mounted to chassis or in accordance to manufacturer specifications.

Steering & Suspension-

- A- Disclaimer: The rules within this section are made with GRAY AREAS in mind. We expect teams to take advantage of these gray areas but NOT violate the rules specifically written. Suspension mounting points MUST remain STOCK!!! Control arms, Spindles, ETC MUST remain STOCK !!! Items not covered MAY be fabricated and altered for performance enhancement. **Excessively modified or altered parts may be deemed illegal for competition.**
- B- Shocks: OEM or stock replacements shocks and struts only, Bilsteins Allowed. No racing, or adjustable shocks/struts allowed. No performance or threaded body shocks/struts allowed. Non-damping adjustable Coil-over Kits allowed, no damping adjustment provisions are permitted on any make or model. Maximum one (1) shock/strut per wheel, four (4) per car. Coil-over sleeve kits allowed. Sleeve kit must attach to unaltered DOT/OEM replacement shock. Weight jack and adjustable spring cups are legal. Adjustable strut plates are allowed.
- C- Springs: Racing springs allowed. Any diameter, any height is permitted.
- D- Sway Bars: Any size sway bars may be used, front or rear. Sway bar does not need to be factory for make/model used.
- E- Bolt-Ons: All suspension parts (a-frames, spindles, hubs, etc.) must be UNALTERED OEM. No cutting, bending, or grinding AT ALL. Spindles must match side to side. Mustang may use QA1 K-Member.
- F- Control Arms: Rear control arms may be fabricated from heim joints and radius rods. RWD may have a ¼" adjustment plus or minus stock length. **Aftermarket OEM dimension non-adjustable control arms may be used.**
- G- Modified Upper Control Arms: On cars where no factory camber adjustment is given cars may be allowed to modify factory upper control arms. Caster camber plates may not be used. Aftermarket

control arms and hardware may be used. Control arms may be shortened or lengthened one (1)" inch, Control arm legs must be the same length. All control arms will be checked BEFORE the car enters the racing surface and receive NHSTRA Officials approval. Approved control arms will be marked and sealed to prevent further modifications without approval.

- H- Steering Shaft: Aftermarket steering shaft recommended. Must have quick release steering wheel. Steering wheel can be made out of steel or aluminum.

Transponder/Scanners/Radios/CellularPhones-

- A- Transponder- All cars must be equipped with a transponder and must be operational at all times during practice, qualifying, and features. If at any time your transponder isn't working, you will be Black flagged off the track. Transponder will be mounted ten (10)' from the front most point of the car. Transponder must face the track.
- B- Scanners- Each competitor must have a one-way scanner programmed to 454.000 at all times during practice, qualifying, and feature event, so NHSTRA Official/Race Control/Scoring can stay in contact.
- C- Cars will not be allowed to carry "ANY" on board computers, micro-controllers, processors, recording devices, electronic memory chips, traction control devices, or digital readout gauges. Cellular phones are not allowed in cars at any time. Go-Pro type devices must be approved by NHSTRA Officials prior to use.
- D- Communications: **TBA**

Tread Width

- A- Maximum tread width 72" inches measured bead to bead. Bead is defined as the outside lip of the wheel used.

Weight-

- A- Base Weights- All race cars with 1.7 liter or greater will weigh a minimum of 2200lbs with 55% maximum left side weight. All race cars with 1.6 liter and smaller will weigh minimum 2150lbs with 55% maximum left side weight.
- B- Weights- All weight rules are General specification. Weights and percentages may be adjusted on a per race basis to balance the lap times if needed to competition purposes. All weight and percentage rules are measured before the race and adjustments may be made at that time. Car and driver could be checked post feature to ensure compliance. NHSTRA/WMMP scales WILL be the source of weights and percentages.
- C- Weight Standards- Percentage overages within the first .1% will be allowed (55.01-55.09%).
- D- Lead: Lead weight may be added to achieve percentages and overall weight required by NHSTRA/WMMP. All lead must be painted white and have the car number painted or becalmed onto the lead. Any cars losing a piece of lead during a race will face immediate disqualification.

Wheels & Tires-

- A- Wheels: 7" or 8" inch wide wheels with any production offset may be used. 13" and 14" inch wheels only. No mixing of rim diameter or width on car. Spacers may be used. NO homemade or altered wheels will be allowed. Racing wheels required. One (1)" inch lug nuts are required on all four (4) wheels.
- B- Tires: Hooiser 800 23" and 800 23.5". Durometer testing of tires will be conducted throughout the race event starting with the first practice. Any tire found to softer than 45pts. will be deemed illegal and penalties may be issued. There will be zero tolerance on durometer checks conducted by NHSTRA/WMMP Officials using NHSTRA/WMMP tools. Each tire will be checked in a minimum of three (3) locations. All locations must be 45pts. or greater to pass.

Wheelbase-

A- STARTING IN 2024, MINIMUM 92" INCH WHEELBASE. FOR 2023 THESE CARS WILL BE ALLOWED TO COMPETE AT HUDSON,

MONADNOCK (NHSTRA TRACKS UNDER ¼ MILE), OR A ANNOUNCED SPECIAL EVENT

B- OEM Wheelbase must be maintained +/- 3/4" inch.

It is the responsibility of the competitor to read and understand these rules. If you have questions about any of these rules, please ask before building.

Any interpretation or deviation of these rules and/or procedures is left to the discretion of NHSTRA speedway officials. Their decisions are final. If there is a rule that your car does not comply to Please Contact NHSTRA so we can see if there is a solution

03/23/2023