



*Intent and Vehicle
Rules
Ver 1: As of
1/21/25*

1. Introduction

The MPH Mustang Challenge Series class was created to provide racers with the best value in amateur level road racing by combining the thunder and excitement of American style pony cars with the best possible reliability and durability of the racing platform, thereby minimizing total cost of ownership for racers. The MPH Mustang Challenge Series is a Time Trials competition, not a wheel-to-wheel race series.

2. Intent

The Mustang Challenge Series rules are designed to ensure parity and optimum reliability by clearly defining allowed modifications. Success in this Time Trail competition will come via driving skill, consistency and fine tuning of adjustable parameters.

Good sportsmanship is valued more than finishing position. This means clean, well-executed passing is to be a trademark of the series. Punting another competitor or leaning on them to gain a position will not be tolerated. Car to car contact including bump drafting can result in an investigation and possible sanctions.

Manipulating the race start, yellow flags or race results in an unsportsmanlike manner is also unacceptable and will result in possible sanctions.

3. Eligible Vehicles Manufacturers/Models/Configurations

Eligible manufacturers, models and base configurations are defined below. Additional combinations will be added in the future.

- a) 2005-2009 Ford Mustang 4.6L 3V V8
- b) Hard-top models only (NO Convertibles)

4. Safety

4.1 Safety Requirements

All Mustang Challenge Series drivers must wear all proper driver attire.

- a) Closed-toed shoes, long pants, long-sleeve shirt and SA2020 Helmet

4.2 Class Safety

The Chief Scrutineer or Mustang Challenge Series Directors may exclude any car from competition for any items that the Directors or Scrutineer deems to be unsafe. The

Event Director may also exclude any car for modifications the Event Director deems to be illegal or unsafe.



4.3 Air Bags

All air bags can either be removed or be left as is.

4.4 Scattershield

The installation of a scattershield or explosion-proof bell housing is not required but is highly recommended.

4.5 Roll Cage or Roll Bar

The roll cage / roll bar may also provide additional chassis stiffening by connecting the cage tubes to the chassis at points other than the main attachment points. The roll cage / roll bar may NOT pass through the firewall. Interior body panels and sheet metal may be bent, removed, or altered to accommodate the roll cage / roll bar design if installed.

4.6 Roll Cage or Roll Bar Padding

Fire-resistant padding must be installed in areas where the driver's helmet may come in contact with the metal tubing during an impact or roll-over incident.

5. Power, Weight and Dimensions

5.1 Weight

The absolute minimum weight for MPH Mustang Challenge Series cars is 3350 pounds with the driver.

5.2 Track Width & Wheelbase

Vehicle	Maximum Wheelbase	Max Track Width
'05-'09 Mustang, 4.6L 3V	108"	74.5"

Cars are allowed a maximum track width as noted in the table above. Track width and wheelbase are measured with driver. Wheelbase is measured from center of front hub to center of rear axle centerlines. Track width is measured at the outside edge of the tires. The track width measurement will be taken at the point three inches from the ground by using two metal plates similar to the Longacre #7950 toe plates. The measurement used for compliance will be the average of the front of the tire and rear of the tire width measurements at the three-inch height after accounting for the width of the plates. The plates will be placed flush against the tire and not perpendicular to the ground for the measurements.



6. Modifications

6.1 Permitted Modifications

No part or component may be modified, removed, or disabled unless specifically permitted by these rules. Replacement parts must be original equipment manufacturer (EOM) for the eligible manufacturer/model/configuration defined in section 3, or the exact equivalent. Where aftermarket part or parts kits are allowed, replacements must be those specific parts or components that make up the parts kit.

6.2 Tires/Wheels

For 2025, the [Bridgestone Potenza Sport 275-40-18](#) are the only tires permitted. *(These tires are available at Tire Rack or Discount Tire)* Tire shaving is NOT permitted. No other tire modifications are permitted. (i.e.- no tire grooving or chemical tire traction treatments) Aftermarket wheels are permitted. Wheels may not be modified. Wheels must be 18x9.5. The Ford Racing M-1007-S1895 wheel is strongly recommended.

6.3 Chassis

The entire tub, floor pan, firewall, and frame assemblies including the cowl and windshield frame must remain stock except for the following modifications.

- a) The rear floor pan area may be modified to enable the installation of a fuel cell.
- b) The floor area and OEM seat mount posts may be modified to enable the installation of racing seat mounts. Seat mount bracing may connect to the roll cage.
- c) The rocker area may be modified to enable the installation of a jacking pad or jacking rail.
- d) Suspension mounting points may be reinforced by welding seams or by adding sheet steel along the OEM contours as long as the mounting points remain in the OEM stock locations and maintain the OEM geometry. Reinforcements may not extend beyond 12" of the center of the mounting point.
- e) The Ford Racing strut tower brace M-20201-S197 may be installed.
- f) The Ford Racing front lower A-arm brace M-2025-A may be installed.

6.4 Body/Interior

- a) Cars must have neat and clean appearances. All panels must fit properly and be free of sharp edges.
- b) Only '05-'09 Mustang V6 and GT model exterior body components, including front facias, front lip spoilers, rear spoilers and rear wings are allowed.
- c) Wheel opening lips may be rolled inward for the purpose of tire clearance but must maintain the OEM contour.
- d) Exterior body trim pieces and antenna may be removed.



- e) All vehicles must start the event with a minimum of two properly functioning rear brake lights within the OEM rear taillight assemblies. All other OEM light assemblies may be replaced with facsimiles, plates, covers, or mesh covered cooling duct openings as long as these maintain the stock external appearance. Replacements for recessed lights must also be recessed.
- f) The grill and front bumper cover may have openings enlarged or added for the purposes of routing cooling air to allowed components.
- g) Any interior mirrors may be used.
- h) All interior parts, panels, and associated brackets may be removed. All unused brackets and trim pieces in the engine compartment may be removed. Undercoating may be removed. Floor mats, spare tire, tools, jacks, etc. must be removed. There must be no remaining sharp edges that could come in contact with the driver.
- i) Hood and trunk may be "gutted" by removing structure from their underside and their struts and associated brackets may be removed.
- j) Any steering wheel, steering wheel quick disconnect assembly, and shifter may be used.
- k) Pedals may be modified for driver comfort.
- l) The driver and passenger side door windows may be removed. The windshield and rear glass must remain OEM. Side quarter windows may be replaced with plexiglass, Lexan or similar and may be modified for air ducts to allowed components.
- m) All open/unused holes in the firewall must be sealed.
- n) Driver comfort items such as cool suits, windshield defogging blowers, etc. may be added as long as they have no impact on the car's performance.
- o) Ford Racing M-17954-A front and rear tow hooks may be used.
- p) Ballast can be added in order to meet the minimum weight requirement. Ballast may be placed in any location.

6.4 Separators, Breathers, and Catch/Overflow Tanks

- a) Breathers, vents, separators, and catch/overflow tanks may be mounted inside the passenger compartment.
- b) The radiator overflow vent line must run into a tank of at least one U.S. quart capacity.
- c) Engine, transmission, and rear axle may have vents or breathers substituted or added including venting to a remote tank.
- d) The engine may NOT be vented to the exhaust or any other vacuum system other than the engine air intake.

6.5 Brakes & Brake System Components

- a) The Ford Racing M-2300-S brake upgrade kit may be used.
- b) The Ford Racing ABS brake module M-2353-A, M2353-CA, M2353-C, 7R3Z-2C219-E may be used.
- c) The hydraulic control unit, brake booster and brake master from the 2005-2009 GT, 2007-2014 Shelby GT500, 2010-2014 GT are permitted.
- d) Brake backing plates (dust shields) may be removed or modified to fit brake cooling ducts.
- e) Water or other liquid cooling brakes is NOT permitted. Air cooling is both allowed and recommended.
- f) Brake rotors must be one-piece iron with a maximum diameter of 14 inches. Rotors may be slotted or dimpled.
- g) Brake pads and fluids are unrestricted.
- h) Wheel studs may be replaced with Ford Racing M-1107-A (front) and M-1107-B (rear). Alternatively, Ford Racing M1104-A front hubs with studs may be used.

6.6 Driveline

- a) Only OEM transmissions are allowed, with no internal modifications.
- b) Any single disc clutch and pressure plate of OEM stock diameter may be used provided that it is bolted directly to the unmodified OEM stock flywheel and the pressure plate is made of the same material as OEM.
- c) Rear wheel negative camber may not be more than 0.50 degrees.
- d) Rear axle ratio must be 3.31:1 or 3.55:1.
- e) The Ford Racing M4204-MB or M4204-T31H Torsen differentials may be used.
- f) The Ford Racing M4033-K/KA rear differential covers may be used.
- g) The Ford Racing replacement aluminum driveshaft M-4602-MGTA is permitted.

6.7 Electronics/Electrical

- a) Data acquisition systems are permitted.
- b) Two-way radio communication in the cars is encouraged and recommended.
- c) Removal of wiring associated with a component that may be removed by these rules is permitted. RE-wiring of legal components is allowed as long as the modifications to the wiring do not alter or affect the original performance of the connected components.
- d) Windshield wipers, wiper motor, arms, parts, windshield washer pump, washer reservoir, all lines and wiring may be removed.
- e) The battery may be relocated and may be any size capable of supplying enough current to start the car.
- f) The ECU may be relocated to inside the body for protection.
- g) Gauges may be removed, substituted, or added.
- h) ECU tuning is permitted.
- i) Ford Racing part number M-6017-463V Control pack is permitted.

6.8 Engine, Engine Accessories, and Exhaust

- a) Engine may be rebuilt or repaired, but all internal and external components must remain within OEM specifications and tolerances.
- b) Any readily available aftermarket cold air intake kit is permitted. All components must be located within the engine compartment.
- c) Ford Racing M-19216-D46 a/c eliminator kit is permitted. All a/c and heater components and associated plumbing may be removed.
- d) OEM exhaust manifolds may have a coating that is bonded to the parent material. This includes any paint or ceramic type coating.
- e) Exhaust from the end of the exhaust manifolds to the exit is unrestricted other than exhaust must exit behind the driver.
- f) Exhaust heat shields may be removed, substituted, or added.
- g) Spark plugs are unrestricted.
- h) Any readily available wet sump oil pan and pickup such as Canton 15-784 or Moroso 20548 may be used. The use of an Accusump or similar oil reservoir is permitted.
- i) Evaporative system components may be removed.



6.9 Vehicle Plumbing

Plumbing, defined as hoses, hose ends, hard lines, associated fittings and routing, is unrestricted provided it serves the same function. Filters for all fluids may be added or substituted.

7.0 Cooling and Lubrication

- a) Any readily available direct replacement radiator is permitted. All radiators must be OEM replacement type, OEM mounting point, OEM inlet/outlet.
- b) Radiator shrouding may be removed, substituted, or added.
- c) Electric cooling fan may be removed, substituted, or added.
- d) Ford Racing M8080-A de-gas bottle and cap are permitted.
- e) Ford Racing M-5025-MBR transmission cooler is permitted.
- f) Oil and power steering coolers of any design are permitted.
- g) Engine, transmission, and differential fluids are unrestricted.



7.1 Suspension

- a) Ford Racing M-3130-R4 bump steer kit is permitted.
- b) Any caster/camber plates are permitted.
- c) Ford Racing M-5638-B or M-5638-C front lower control arm bushings are permitted.
- d) Ford Racing M-5638-R rear upper link bushings are permitted.
- e) Ford Racing M-5649-R1 rear lower control arms are permitted.
- f) Ford Racing M-5650-A rear lower control arm brackets are permitted.
- g) Ford Racing M-4264-A adjustable panhard bar is permitted.
- h) Ford Racing M-5490-A sway bar kit is permitted. Any OEM swaybar from any eligible model is permitted.
- i) Motion Control Suspension Shock Package SET-1WNR-NSI-S-01 or HVT Shock Package HVT-F1001-SI is permitted.
- j) Coil springs and hardware may be of any rate, OD, Id, and free length.
- k) Coil springs spacers and threaded adapters are permitted.
- l) Upper 3rd link of any origin may be used but must use factory mounting holes in the factory locations on both the axle and body.
- m) Any front swaybar endlinks are permitted.
- n) Any rear upper shock mount is permitted but it must utilize the upper rear OEM shock/strut attachment points.

7.2 Fuel System

- a) Any OEM style fuel pump is permitted.
- b) Components such as fuel cell foam, baffling and/or hydramats designed to help with the fuel starvation are permitted.

7.3 Vehicle Graphics

- a) All competitors must run have unique car numbers clearly visible on the exterior of the car on any of the following areas;
 - * Sides
 - * Rear quarter windows
 - * Upper corner of passenger-side FRONT windshield + upper corner, driver's side REAR window
- b) MPH Mustang Time Trial Challenge decal on both sides of the car or at the base of both the front windshield and rear window.
- c) Owners / Drivers are ENCOURAGED to create tasteful and colorful "graphic packages / treatments for their cars for visual appeal on grid and on track (prizes may be awarded...)