

N/A FACTORY STOCK

This class is open to any Factory Stock, Coyote Stock or Chevrolet Performance Stock combinations.

All entries must meet the rules for the respective classes with the adjusted weights highlighted in red in each rule set.

- Factory Stock Rules - pages 2 - 14
- Coyote Stock Rules - pages 15 - 24
- Chevrolet Performance Stock Rules - pages 25 - 33

Additional Notes to be aware of:

- C10 is the only fuel permitted for all 3 classes.
- Coyote stock combos must use legal tune and will be flashed and verified randomly.
- Chevrolet Performance Stock Combos must use legal tune and will be verified randomly.

FACTORY STOCK

CLASS OVERVIEW

Factory Stock is designed for 1954 and newer Ford bodied vehicles with naturally aspirated 4.6L, 5.0L, 5.0L Gen I Coyote, Gen II Coyote and 7.3L Godzilla engines. Maximum engine size is 315 CID for 4.6L, 5.0L and Coyote combinations. Maximum engine size is 446 CID for the 7.3L Godzilla combination. Entries are limited to certain performance modifications.

Note: This set of class rules is presented to all competitors under the assumption that any modifications not specifically written within these rules shall be deemed illegal, unless the competitor has the expressed written consent from the Tech Director.

RACING FORMAT

This class will be an all run heads-up field, **NHRA Pro Ladder** on a .400 Pro Tree.

CLASS DESIGNATION - FS

<u>ENGINE</u>	<u>BASE CID</u>	<u>BASE WEIGHT</u>
4.6L 2V	289	2800
4.6L 3V	289	2850
4.6L 4V	289	3000
5.0L HO	311	2600 2500
5.0L Coyote Gen I	305	3100 3000
7.3L Godzilla	446	3500 3300

Note:

All weights are with driver and rounded down to the nearest 5lb increment. A 15lb per CID weight penalty will be assessed to all engine combinations over their base CID.

Cross breeding of Gen I Coyote and Gen II Coyote engine Components permitted (must carry the Gen II weight adder).

WEIGHT ADDITIONS/DEDUCTIONS

- Entries using a Ford C4, AOD, AODE, 5R55, 6R80, and 4R70W automatic transmission may deduct 325 lbs from their original base weight.
- Entries using Ford OEM 5.0L HO E7 cylinder heads may deduct 100lbs from their original base weight.
- Entries using Ford OEM 4.6L 2v cylinder heads may deduct 150lbs from their original base weight.
- 2005-present Mustangs with 4.6L 3V engine combination may deduct 100lbs from their original base weight.
- 5.0L Entries using Gen II cylinder heads (see cylinder casting list under cylinder head section) and or Gen II camshafts (512 lift) add 125 lbs.
- 2018 – present 5.0L intake add 25lbs
- 2015-2020 Mustang GT350 5.2L Coyote Intake Manifold add 25lbs
- 2015-2020 Mustang GT350 5.2L Coyote. 2021-2023 Mach 1 Coyote or and mass produced commercially available Throttle Body (87mm max) add 25lbs

- Any Combination using Tubular headers larger than 1.75 inch outside diameter with a maximum outside diameter primary tube size of 2 inches add 25lbs.

REQUIREMENTS & SPECIFICATIONS

AIR FILTER/CLEANER

Any aftermarket street legal automotive type air filter/cleaner is permitted. All incoming air must pass through an air filter.

CAMSHAFT

Each engine combination must compete with the following camshaft specs:

- 5.0L HO: Hydraulic roller camshaft with any duration and lobe separation is permitted. Maximum valve lift at the retainer is .480.
- 4.6L 2V: Hydraulic roller camshaft with any duration and lobe separation is permitted. Maximum valve lift at the retainer is .575 intake/.575 exhaust.
- 4.6L 3V: Hydraulic roller camshaft with any duration and lobe separation is permitted. Maximum valve lift at the retainer is .439 intake/.436 exhaust.
- 4.6L 4V: Hydraulic roller camshaft with any duration and lobe separation is permitted. Maximum valve lift at the retainer is .430 intake/.430 exhaust.
- 5.0L Gen I Coyote: Hydraulic roller camshaft with any duration and lobe separation is permitted. Maximum valve lift at the retainer is .472 intake/.472 exhaust.
- 5.0L Gen II Coyote: Hydraulic roller camshaft with any duration and lobe separation is permitted. Maximum valve lift at the retainer is .512 intake/.512 exhaust.
- 5.0L HO applications, valve lift will be checked at retainer with pushrod & rocker in "as run" condition using a blocked up OEM Ford hydraulic roller lifter set at zero lash. Duration/Lobe Separation will be checked with camshaft & hydraulic roller lifter in block and measured at the crankshaft. Lobe lift will be measured at the hydraulic roller lifter. For 4.6L and 5.0L Coyote applications, valve lift will be checked at retainer with pushrod & rocker in "as run" condition using a blocked up OEM Ford hydraulic roller lifter set at zero lash. Duration/Lobe Separation will be checked with the camshafts mounted in the cylinder head and measured at the crankshaft. Lobe lift will be measured at the cam lobe.
- 7.3L Godzilla: Hydraulic roller camshaft with any duration and lobe separation is permitted. Maximum valve lift at the retainer is .546 (13.87mm) intake/.609 (15.48mm) exhaust.

COOLING SYSTEM

Radiator and Water pump is required. Electric Water Pump is permitted. Any Ford OEM or production style radiator is permitted and must mount in the stock location. Any cooling fans permitted. Core support is required. Aftermarket Lower core support permitted. Any cooling fan is permitted.

CONNECTING RODS

Ford OEM or aftermarket steel connecting rods are permitted. Ford OEM and aftermarket connecting rod length must maintain factory length within +/- .025 inches. 5.0L HO: 5.090 inches. 4.6L Modular: 5.933 inches. 5.0L Coyote Gen I and Gen II: 5.933 inches, 7.3L Godzilla: 6.319 inches(160.5mm).

CRANKSHAFT

Ford OEM or aftermarket steel crankshaft permitted. OEM crankshaft stroke must maintain within +/- .010 inches. 5.0L HO: 3.000 inches. 4.6L Modular: 3.543 inches. 5.0L Coyote Gen I and Gen II: 3.653

inches. 7.3L Godzilla: 3.976 inches(101mm). Minimum rod journal diameter for all applications is 2.000 inches.

CYLINDER HEADS

Porting or any modifying of cylinder heads for all engine combinations is prohibited. Aftermarket steel valves are permitted. Maximum valve angle of +/- 2 degrees from the factory must be maintained on all applications. Please refer to list below for engine specific cylinder head specifications.

1. 5.0L HO: Commercially available cast iron heads permitted. Maximum valve sizes are 1.850 intake/1.555 exhaust. Maximum valve stem diameter is .343. Minimum combustion chamber volume is 52.0cc. Ford Aluminum GT40X heads permitted with maximum valve sizes 1.940 intake/1.540 exhaust, with minimum combustion chamber volume 58.0cc.
2. 4.6L 2V: Commercially available cast aluminum heads permitted. Maximum valve sizes are 1.850 intake/1.452 exhaust. Maximum valve stem diameter is .274. Minimum combustion chamber volume is 40.0cc.
3. 4.6L 3V: Commercially available cast aluminum heads permitted. Maximum valve sizes are 1.368 intake/1.514 exhaust. Maximum valve stem diameter is .274. Minimum combustion chamber volume is 46.0cc.
4. 4.6L 4V: Commercially available cast aluminum heads permitted. Maximum valve sizes are 1.487 intake/1.211 exhaust. Maximum valve stem diameter is .274. Minimum combustion chamber volume is 49.0cc.
5. 5.0L Gen I Coyote: Ford OEM cast aluminum heads permitted. Include only the following:
 - a. RFBR3E-6090-CA/CB/CC/CD/CD/CF
 - b. RFBR3E-6C064-CA/CB/CC/CD/CEMaximum valve sizes are 1.460 intake/1.230 exhaust. Maximum valve stem diameter is .234. Minimum combustion chamber volume is 52.0cc.
6. 5.0L Gen II Coyote: Ford OEM cast aluminum heads permitted. Include only the following:
 - a. RFFR3E-6090-CA/CB
 - b. RFFR3E-6C064-CA/CBMaximum valve sizes are 1.470 intake/1.260 exhaust. Maximum valve stem diameter is .234. Minimum combustion chamber volume is 57cc.
7. 7.3L Godzilla: Commercially available cast aluminum heads permitted. Maximum valve sizes are 2.170 (55.13MM) intake and 1.674 (42.53MM) exhaust. Maximum Intake valve stem diameter is .313 (7.953mm). Maximum Exhaust valve stem diameter is .312 (7.941mm). Minimum combustion chamber volume is 62.40cc.
 - a. LH HEAD CASTING - RFLC3E-6C064-JB/JC / DA
 - b. RH HEAD CASTING - RFLC3E-6090-JB /DA

Approved Cylinder Head List:

Below is the approved cylinder head list for this category. If a cylinder head is not on this list, it is prohibited.

- Stock Ford OEM 5.0 HO Cast Iron Cylinder Heads
- FRPP/SVO GT-40 Cast Iron Cylinder Heads
- FRPP/SVO GT-40P Cast Iron Cylinder Heads
- FRPP/SVO GT-40X Aluminum Cylinder Heads

- FRPP/SVO GT-40X2 Aluminum Cylinder Heads (part # M-6049-X2)
- Stock Ford OEM 4.6 2V Cylinder Heads
- Stock Ford OEM 4.6 3V Cylinder Heads
- Stock Ford OEM 4.6 4V Cylinder Heads
- FRPP/SVO 4.6 2-valve Cylinder Heads Stock Ford OEM 5.0L Coyote Gen I Cylinder Heads (Maximum valve sizes are 1.460 intake/1.230 exhaust) Casting numbers include only the following: RFBR3E-6090-CA/CB/CC/CD/CD/CF, RFBR3E-6C064-CA/CB/CC/CD/CE. BOSS, BOSS R and Cobra Jet cylinder heads prohibited.
- Stock Ford OEM 5.0L Coyote Gen II Cylinder Heads (Maximum valve sizes are 1.470 intake/1.260 exhaust) Casting numbers include only the following: RFFR3E-6090-CA/CB, RFFR3E-6C064-CA/CB
- Stock Ford OEM 7.3L Godzilla Aluminum Cylinder Heads

Note:

Stock/OEM cylinder heads are those that are factory produced production line cylinder heads by Ford.

EFI SYSTEM

All engine Combinations are permitted to use a OEM Ford EFI system or a approved stand-alone EFI system. Example: Holley, AEM, Fast, Big Stuff 3, Fuel Tech FT550, etc.. Any size/type of fuel injector is permitted with a maximum of 8 injectors mounted in the stock location for engine combination being used. Approved plug-in style chips and EEC add-ons are permitted.

Approved Computer Add-On List

Below is the approved computer add-on list for this category. If a computer add-on is not on this list, it is prohibited.

- FRPP Extender & FRPP EPEC
- Anderson Ford PMS
- Autologic Plug-in EEC Chip
- Superchips Plug-in EEC Chip
- Hyperchip Plug-in EEC Chip
- Diablo Plug-in EEC Chip
- EEC Tuner
- SCT Xcalibrator Series
- SCT iTSX
- DiabloSport Predator/InTune
- DiabloSport Trinity
- DiabloSport inTune
- Moates Quarterhorse Chip minus download cable
- HP Tuners/HP Tuners N-Gauge

ENGINE COATINGS

Engine coatings are permitted where lubricants are present and pistons. Cylinder head coatings of intake/exhaust port runners and combustion chambers prohibited. No coatings on intake manifold, intake runner or plenum area.

ENGINE BLOCK

Engines are limited to 7.3L Godzilla, 5.0L HO, 5.0L Coyote Gen I, 5.0L Coyote Gen II, 4.6L Modular combinations and OEM Ford Racing Illuminator Engine, Part #M-6007-A50NA. All entries are required to

use the Ford OEM drive belt system. 7.3L Godzilla must use cast iron Ford engine block. 5.0L HO must use cast iron Ford type engine block. 5.0L Coyote must use Ford OEM engine block. 4.6L Modular engines may use cast iron or cast aluminum engine block. Block must maintain OEM bore spacing, deck height, and crankshaft spacing for engine type being used. Deck spacers (extensions) prohibited. Main cap girdles are permitted. Lifter bore bushings are permitted.

7.3L Godzilla permitted Blocks

Year	Service Part No.	Engineering Part No
2021	LC3Z-6010-A	LC3E-6010-JB/JC
2021	LC3Z-6010-D	LC3E-6010-JD
2023	LC3Z-6010-E	LC3E-6010-JE/JF

ENGINE MOUNTS & LOCATION

Engine and cylinder heads cannot contact firewall. Solid engine/motor mounts are permitted. Engine/motor plates are prohibited.

EXHAUST SYSTEM

All entries are permitted to use tubular headers with a maximum outside diameter primary tube size of 1 3/4 inches. Header collectors have a maximum diameter of 3 inches. Complete exhaust system with two mufflers is required. Maximum exhaust tubing diameter is 3 inches and must exit within 12 inches of the rear axle centerline.

FUEL

VP Racing Fuels C-10 is the only gasoline allowed. TECH reserves the right to inspect fuel at any time during competition. Failure to pass Fuel Check is grounds for disallowance of the run during competition and disqualification from the event during eliminations.

Fuel is checked using various means. Samples given to Fuel Check Technical Inspectors are compared to data taken from known fuel samples provided by VP, adjusted for temperature, and within a tolerance determined by TECH. Failure occurs when the sample readings fall outside those tolerances.

FUEL SYSTEM

All fuel lines must originate and return to a single, non-segmented, fuel cell or Ford OEM fuel tank. Fuel pump must shut off with a master electrical switch. Any method of artificially cooling fuel prohibited. A valve for removal of fuel for tech inspections is mandatory. Valve must be installed between injection and regulator. Aftermarket/fabricated fuel tank or cell permitted and must be located in trunk area. If tank or fuel filler is inside trunk, a bulkhead of minimum .032" aluminum or .024" steel must be used between trunk and driver compartment, and tank must be vented to outside of car. When used, fuel cells must have a metal box protecting the part of the fuel cell that is outside the trunk floor. Non-metallic fuel cells or tanks must be grounded to frame.

HARMONIC BALANCER

Ford OEM or aftermarket harmonic balancer is permitted. 7.3L Godzilla engines are permitted to use a balancer/crank pulley with a minimum diameter of 6.00 inches. 5.0L Coyote engines are permitted to use a balancer/crank pulley with a minimum diameter of 6.53 inches. All other engine combinations are permitted to use a balancer/crank pulley with a minimum diameter 4.375 inches. All diameters will be measured from the top of the ribs located on the pulley.

INTAKE MANIFOLD

Only accepted intake manifolds permitted. Porting or any modifications performed to intake manifold is prohibited. Any height spacer between upper and lower intake manifolds is permitted. Removal of intake manifold secondary runner control system is permitted on 4.6L 4V engine combinations. As-cast aftermarket throttle body-to-intake manifold plenums are permitted for 4.6L 2V engine combinations. For any 5.0L HO Combination, any commercially available, mass-produced cast aluminum "long-runner" style intake; non-listed intakes requires prior-approval from the Tech department so it can be added to the approved list. The 7.3 Godzilla combination is only permitted the Ford Performance Low Profile Intake part #M942473LP.

Approved Intake Manifold List

Below is the approved intake manifold list for this category. If an intake manifold is not on this list, it is prohibited.

- Stock OEM Mustang-specific 5.0L HO EFI Intake – Upper & Lower
- Stock OEM Mustang-specific 4.6 2V Intake – Upper & Lower
- Stock OEM Mustang-specific 4.6 3V Intake – Upper & Lower
- Stock OEM Mustang-specific 4.6 4V Intake – Upper & Lower
- Ford Explorer – Upper & Lower
- SVT Cobra EFI – Upper & Lower, PN# M 9424 D51, M 9424 E51
- SVO 4.6 2-Valve – Upper & Lower
- Bullitt Ford OEM 4.6L 2-valve intake
- Edelbrock Victor Jr. EFI 4.6L 2-valve intake PN#28385
- TFS Track Heat 4.6L 2-valve intake PN#TFS51811003
- Stock OEM 2018-2019 5.0 Coyote Truck – Upper & Lower. PN#JL3Z-9424-C
- Stock OEM Mustang-specific 5.0L Coyote Gen I. PN#M9424 & Cobra Jet prohibited
- Stock OEM Mustang-specific 5.0L Coyote Gen II. PN#FR3Z-9425-G
- Stock OEM Mustang-specific 5.0L Coyote Gen III. PN# JR3Z-9424-A
(permitted with weight adder – see weight adder/deduct list)
- Stock OEM GT350 5.2L Coyote Intake Manifold PN#M-9424-M52, PN#GR3Z-9424-C or GR3E-9424-AD (permitted with weight adder – see weight adder/deduct list)
- Edelbrock Performer (5.0L HO)
- Edelbrock Performer RPM/RPM II (5.0L HO)
- Ford Performance GT-40 (5.0L HO)
- Ford Performance M-9424-463V (4.6L 3V)
- Ford Performance LOW PROFILE INTAKE M942473LP – Godzilla Combination only
- Holley Systemax (5.0L HO)
- Trick Flow Street Heat (5.0L HO)
- Stock OEM Ford 7.3L Intake - LC3Z-9424-A / LC3E-9424-JA (20MY)
- Stock OEM Ford 7.3L Intake - PC3Z-9424-B / PC3E-9424-AC (23MY)

LIFTERS/LASH ADJUSTERS

Aftermarket Replacement Lifters permitted. Hydraulic roller Lifter may replace hydraulic Lifter.

OILING SYSTEM

Factory wet sump oil system is required for all entries. All external oil pumps, vacuum pumps and/or crankcase ventilation systems are prohibited. All entries are permitted the use of windage trays, crank scrapers, etc. Stock Ford OEM oil pan is required on all entries except:

- 5.0L engines can use Canton oil pan #13-600.
- Godzilla engines can use Holley Oil Pan #20-320 or #20-320BK

PISTONS & PINS

Ford OEM or aftermarket pistons are permitted. Flat top design pistons are required for all applications except the 5.0L Coyote engines. 5.0L HO engine combinations minimum wrist pin diameter is .912 inches. 4.6L Modular, 5.0L Coyote Gen I and 5.0L Coyote Gen II engine combinations minimum wrist pin diameter is .866 inches. 7.3L Godzilla engine combinations minimum wrist pin diameter is .984 and a maximum wrist pin diameter of .990 inches. Gas porting is prohibited.

5.0L Gen I Coyote Piston: Aftermarket piston may be forged or cast and must retain the as-cast or as-forged Ford OEM head configuration. The manufacturer or ID number must remain unaltered and fully visible to determine correct application. Piston may not be re-machined for special rings, deck height adjustment, valve relief size, depth, location, or to modify dome. Piston must be of the same overall design with the same dome configuration as the original Ford OEM design and maintain a 3.47cc dome. Any piston modifications are strictly prohibited.

5.0L Gen II Coyote Piston: Aftermarket piston maybe forged or cast and must retain the as-cast or as-forged Ford OEM head configuration. The manufacturer or ID number must remain unaltered and fully visible to determine correct application. Piston may not be re-machined for special rings, deck height adjustment, valve relief size, depth, location, or to modify dome. Piston must be of the same overall design with the same dome configuration as the original Ford OEM design and maintain a 4.451cc dome. Any piston modifications are strictly prohibited.

7.3L Godzilla Piston: Aftermarket piston may be forged or cast and must retain the as-cast or as-forged Ford OEM head configuration. The manufacturer or ID number must remain unaltered and fully visible to determine correct application. Piston may not be re-machined for special rings, deck height adjustment, valve relief size, depth, location, or to modify dome. Piston must be of the same overall design with the same dish configuration as the original Ford OEM design and maintain a -20.54cc (-.808cc) valve pocket/bowl volume. Any piston modifications are strictly prohibited.

PISTON RINGS

The use of three pistons rings is required for all engine combinations.

PUSHRODS

Only 3/8 inch outside diameter steel pushrods permitted. Pushrod guide plates are permitted.

ROCKER ARMS

Any conventional stud, pedestal and shaft mounted rocker arms permitted. Stud girdles are prohibited.

THROTTLE BODY

7.3L Godzilla, Single throttle body in stock location required. Maximum throttle body size is 92mm. Part #M-9926-M5292

5.0L Coyote, 5.0L HO & 4.6 2V & 3V applications. - Only mass produced, commercially available throttle bodies permitted. Single throttle body in stock location required. Maximum throttle body size is 3.150" (80mm).

4.6 4V must use unmodified, OEM-supplied stock throttle body, EGR spacer is not required.

4.6 2V engine using Bullet/SVO style intake manifolds must use an unmodified, OEM-supplied stock throttle body.

2015-2020 Mustang GT350 or 2021-2023 Mach 1 - Only Mass Produced, commercially available throttle bodies permitted with weight adder (see weight adder/deduct list). Single throttle body in stock location required. Maximum throttle body size is 3.430" (87mm).

THROTTLE LINKAGE

Throttle control must be operated by the driver's foot.

TIMING CHAIN

Ford OEM or aftermarket stock replacement timing chain/chains are required on all engine combinations.

VALVE SPRINGS & RETAINERS/LOCKS

Any valve springs are permitted. Only steel retainers and locks are permitted.

DRIVETRAIN: 2

AUTOMATIC TRANSMISSION

Ford AOD, AODE, 5R5S, 6R80, 4R70W, & C4 are permitted. Lock-up style converters are prohibited. Overdrive may be removed. The use of trans-brakes is permitted. One piece steel and steel "bolt together" torque convertors are permitted. All other style torque convertors are prohibited. All vehicles running quicker than 9.99 or faster than 135 mph using an automatic transmission must be equipped with a transmission shield meeting SFI Sec 4.1, a flexplate meeting SFI Spec 29.1, and covered by a flexplate shield meeting SFI Spec 30.1.

CLUTCH

Clutch and Flywheel meeting SFI Spec 1.1 or 1.2 is required. Diaphragm Pressure Plate Assembly is required. Single Clutch Disc with a minimum of 10 inches in diameter is required. Factory style cable mechanism for clutch operation is required. 2005 and up Mustangs are allowed to retro-fit to the 79'---04' factory style cable mechanism. Clutch release must be manually operated by driver's foot. The use of electronics, pneumatics, hydraulics, or any other device is prohibited from assisting clutch system/operation. Unmodified Clutch Tamer is permitted. Steel or Aluminum flywheel shield meeting SFI Spec 6.1 is mandatory. Flywheel shield cannot be modified for clutch adjustment and/or cooling holes.

DRIVELINE

Any steel or aluminum driveshaft is permitted. Carbon fiber driveshaft is prohibited. Driveshaft safety loop is required. Titanium Driveline Components prohibited unless OEM Factory Equipped. Example: Axles, Brake rotors, Calipers, Etc.

MANUAL TRANSMISSION

Only specified Ford OEM or aftermarket manual transmissions permitted. All transmissions are required to be unmodified from the manufacturer which also includes the following: helical or straight-cut gear sets and counter shafts. All gear changes must occur directly from the driver. Pneumatic, hydraulic, electric, etc. shifters are prohibited. Clutch-less transmissions are prohibited. Clutch must be used to

change gears in a conventional manner. Pro-shifting is permitted on all transmissions. All manual Transmission shifters must maintain an H pattern. Aftermarket shifter with a single pivot ball shifting arm that uses Ford OEM mounting holes is required. Floor-shift conversion kits are permitted.

Approved Manual Transmission List

Below is the approved manual transmission and gear ratio list for this category. If a manual transmission or gear ratio is not on this list, it is prohibited.

- Tremec T5(a) -
- Tremec T5(b) -
- Tremec T45 -
- Tremec T56 (a) -
- Tremec T56 (b) -
- Tremec TR3550 -
- Tremec TR3650 -
- Tremec TKO/TKO-II -
- Tremec TKX
- T5 w/G-Force PN#5000 Dog Ring -
- T5 w/G-Force PN#5000 Syncro -
- Tremec TR3550/TKO/TKO-II w/Liberty Gear PN#LG3500 -
- Tremec TKO-500 -
- Tremec TKO-600 -
- Tremec TKO w/Liberty Gear PN#LGT297-
- Tremec TKO w/Liberty Gear PN#LGT318-
- T5 w/G-Force PN#5000 Dog Ring –
- G-Force –G101A, GF4A –
- Liberty -LCS 5000 4-Speed
- Andrews Transmission –A431 H-Pattern 4-speed

REAR END

Any OEM automotive type rear end permitted.

BRAKES, STEERING & SUSPENSION: 3

BRAKES

Front and rear hydraulic brakes are required. Automated brakes are prohibited. The application and release of the brakes must be a function of the driver. Dual reservoir master cylinder is required. Line-lock is permitted only on the front wheels using one line-lock button and solenoid. Any other electrical, pneumatic, hydraulic, etc. switch in braking system is prohibited. Titanium Brake Components prohibited unless OEM Factory Equipped. Example: Brake Rotors, Calipers, Etc.

FRONT SUSPENSION

Stock, aftermarket or tubular type K-member permitted. K-member must mount in its original location. K-member may be notched for oil pan clearance. Factory strut/shock towers are required. Bolt-on type caster/camber plates are permitted. Factory or aftermarket control arms are permitted.

REAR SUSPENSION

Stock rear type suspension is required. Racing style 4-link and ladder bar type suspensions are prohibited. Stock type suspension may utilize any commercially available direct bolt in shocks, springs,

leaf springs or factory style 3-link/4-link suspension systems for the particular year/make/model of car being used. Leaf springs are allowed to be moved inboard. Torque arm style suspensions are only permitted on OEM equipped vehicles. Bolt-on traction devices, panhard bars and anti-roll bars are permitted. Aftermarket sway bars are permitted.

SHOCKS/STRUTS

Stock replacement type shocks in the rear and struts in the front are required. Coil-over struts are permitted. Shock/strut must mount in stock location. Shocks/struts must be stand-alone and cannot be adjustable during a run. Rear coil over shocks are prohibited. Electronic programmable shocks/struts are prohibited. Spindle mount type struts are prohibited.

STEERING

Any Ford OEM automotive production type steering system permitted.

WHEELIE BARS

The use of wheelie bars is prohibited.

FRAME: 4

CHASSIS

All vehicles must have a chassis that meets the guidelines set by SFI for their respective speed and elapsed time. A valid NHRA serialized Chassis sticker is mandatory for any car running 9.99 (6.39 = 1/8 mile) or quicker, or 135mph or faster at a NHRA member track.

FRAME

Front and rear frame rails must remain unaltered and in the stock locations. Sub frame connectors are permitted.

GROUND CLEARANCE

A minimum of 4 inches from the front of the vehicle to the centerline of the front spindle is mandatory. A minimum of 3 inches for the rest of the vehicle is mandatory (except for oil pan, oil pan saver and exhaust headers).

WHEELBASE

Entries must retain stock wheelbase dimensions of + or – 1 inch. Maximum wheelbase variation from left to right is 1 inch.

TIRES & WHEELS: 5

TIRES

FRONT: DOT and non-DOT tires are permitted. Front tires must have a minimum width of 4.5 inches.

REAR: Permitted drag radial sizes are 275/50/15, 275/60/15, & 275/40/17 from the following manufacturers/brands: BF Goodrich Comp T/A Drag Radial, BF Goodrich G-Force T/A Drag Radial, Nitto NT555R Drag Radial and M/T ET Street Radial. The following Mickey Thompson Pro Bracket Radial part numbers are permitted: 3352R, 3353R, 3354R, and 3355R. The following Hoosier part numbers are permitted; 18805DBR, 18810DBR, 18815DBR and 18820DBR. 26 x 10 maximum size (as measured) bias-ply slick permitted.

WHEELS

Aftermarket racing wheels permitted. Spindle mount type front wheels are prohibited.

INTERIOR: 6

PEDALS & PEDAL LOCATION

Stock type pedals and linkage in the factory location are required.

STEERING COLUMN/WHEEL

OEM or stock type steering column required. Steering column must have a factory appearance. Removable steering wheel is permitted. Aftermarket steering columns and steering wheels are permitted.

UPHOLSTERY

Must have full factory type upholstery, including carpet, door panels, headliner, and factory dash. Driver's seat required and mounted in the stock location. Aftermarket front seats and door panels are permitted. Rear seat, heater and A/C controls may be removed.

BODY: 7

APPEARANCE

All cars in competition must be painted or wrapped. Advertising graphics are permitted on the body.

- Ford Fest Windshield Banner: Decal needs to be located on the top of the windshield or just above the windshield located on the body.
- Class Sponsor: Decal must be located on the passenger's side lower portion of the windshield.
- Class & Competition Numbers: Numbers must be easily visible/legible and located on the front, back, and both side windows.

BODY

Body must retain original appearances and profiles for year, make and model being used. OEM body shell must be intact. Light weight body panels are restricted to hood, **doors**, bumpers and deck-lid/truck-lid or hatch. Hood may be a lift-off style and deck-lid/trunk-lid or hatch must be hinged. Lift off style deck-lid/trunk-lid or hatch is prohibited. Alterations or aerodynamic modifications are prohibited.

BUMPERS

No body components, bumper add-ons, sill plates, chin spoilers, body kits, license plate frames, etc. are permitted to be added to the nose of the vehicle. "Outlaw" style bumpers are prohibited. For Bumper approval, send pictures to Tech Director.

COWL AREA

Complete Ford OEM cowl is required.

FENDER SPLASH PANS

Full, factory Ford OEM or aftermarket inner fenders are required.

FIREWALL

Stock, unaltered firewall is required.

FLOOR

The entire floor, including transmission tunnel, and trunk floor must be unaltered and in the stock location.

HOOD SCOOPS

The use of aftermarket forward facing hood scoops is prohibited. Ford OEM hood scoops are permitted and must be sealed off from fresh air. The use of cowl induction style hoods are permitted on any vehicle with a maximum height of 6 inches. Cowl height will be checked from the tallest point of the hood to the fender line.

GRILLE

Grille must be full production for make, model and year being claimed. Covering in front of or behind the grille is prohibited.

STREET EQUIPMENT

Headlights and tail lights/brake lights are required.

WHEEL WELLS

Factory wheel wells/tubs are required. Widening/sectioning for tire fitment is permitted and must maintain a Ford OEM appearance. Aftermarket style mini-tubs are prohibited.

WINDSHIELD & WINDOWS

Optic Armor stock replacement of any Glass permitted per manufacturers recommended specs.

WING/SPOILERS

Rear wing/spoiler is permitted with a maximum length of 26 inches. Rear wing/spoiler will be measure from the transition point of the deck-lid/trunk-lid to the rear most portion of the wing/spoiler. Any adjustments to the wing/spoiler during a run are prohibited.

ELECTRICAL: 8**BATTERIES/CHARGING SYSTEM**

Battery may be relocated and must be an automotive type. Only a single battery may be present and or used in the vehicle during competition.

IGNITION

Any battery operated ignition system is permitted. Any OEM Ford or aftermarket distributor permitted. (IE. MSD (Digital 6 or 7), HOLLEY, ETC).

MASTER CUTOFF

A master cutoff switch is mandatory on all vehicles with a battery located in the trunk.

STARTER

Aftermarket starters, in stock location permitted.

SUPPORT GROUPS: 9**BRACKET RACING AIDS**

The use of any bracket racing aids such as optical sensors, delay boxes, shutter boxes, throttle stops, etc. are prohibited. The use of any device (electrical or mechanical) that allows a driver to ascertain the position of their vehicle to the starting line is prohibited.

COMPUTER/DATA RECORDERS

Only approved external data recorders, data loggers, are permitted. Any wide-band O2 device must be capable of only logging air/fuel ratio, and may not be run in closed loop with EFI or ignition system. Only a single O2 sensor is permitted to be installed in each header collector. Playback tachometers permitted including those that record driveshaft RPM. Laptops prohibited in vehicle during competition.

Approved Data Loggers:

- Racepak: V300SD, Sportsman Series/IQ3
- AEM: AQ-1
- Port-a-Tree Data: Electronic Switch Panel
- Computech: Data Max
- RPM Performance Products: DL10
- Performance Trends: DataMite III
- Altronics: DataQuest
- Holley Digital Dash
- Haltech IC-7 Colour Display Dash
- Motec C1

TOW VEHICLES

The use of tow vehicles is permitted. Vehicles must drive on/off or manually be pushed on/off the scales.

DRIVER: 10

CREDENTIALS

A Valid state or government issued driver's license beyond a learner/s permit level is mandatory for cars running 10.00 or slower. A valid NHRA competition license is mandatory for cars running 9.99 or quicker, at a NHRA Member Track. A valid NHRA or an IHRA competition license is mandatory at an IHRA Member Track.

Note: It is ultimately the competitor's responsibility to familiarize themselves with the FORD FEST class requirements as well as ***all NHRA safety requirements***. The competitor agrees they bear the ultimate responsibility when it comes to safety and how it complies with the FORD FEST and NHRA rule books. The competitor also agrees that no one else other than the competitor is in the best position to know about how their particular race car has been constructed and how to safely operate it.

DRIVER

The driver when in the vehicle, from the ready line until the vehicle is safely stopped on the return road, **is required to have all safety restraint systems (including the helmet) on and be securely fastened in the vehicle at all times**

A head and neck restraint device/system meeting SFI 38.1 is mandatory for any vehicle running 150 mph or faster for 1/4 or 1/8 mile or running 7.49 (*4.49) E.T. or quicker or by Class Requirements. An SFI 38.1 head and neck restraint device can be used with, or without, a neck collar; when a neck collar is not used, an SFI 3.3 head sock or SFI Spec 3.3 skirted helmet is required.

COYOTE STOCK

CLASS OVERVIEW

Coyote Stock is a naturally aspirated heads-up class designed for **any Domestic or Foreign bodied** vehicle using a production OEM Sealed Ford Coyote crate engine combined with a factory Ford Racing sealed ECM and installation kit. This helps control the ever rising expenses associated with competitive heads-up drag racing and allows racers to explore other avenues to gain a performance advantage. All entries must compete on stock suspension and at the same base weight.

Note: This set of class rules is presented to all competitors under the assumption that any modifications not specifically written within these rules shall be deemed illegal, unless the competitor has the expressed written consent from the Tech Director.

Class participants are prohibited from tampering with and/or altering the OEM Sealed Ford Coyote crate engine or the supplied tune. Any violation of this will result in severe penalties imposed by the FORD FEST on any/all related parties.

RACING FORMAT

This class will be an all run heads-up field, **NHRA Pro Ladder** on a .400 Pro Tree. Qualifying Pairing Procedures, see General Regulations Page 15, Section 2.30.

CLASS DESIGNATION - CS

ENGINE - BASE WEIGHT

Sealed 5.0L Coyote (GEN1, GEN2 OR GEN3) - 3000

Note: All weights are with the driver and rounded down to the nearest 5lb increment.

REQUIREMENTS & SPECIFICATIONS

ENGINE: 1

AIR FILTER SYSTEM

Any automotive type aftermarket air filter system required. All incoming air entering the engine must pass through an air filter system.

BLOCK

The following Blocks for the specific Generation engines are the only block permitted.

GEN1 or GEN2 - Part # RFBR3E-6015-HD

GEN3 – Part # M-6010-M504VC

COOLING SYSTEM

Radiator and Water pump is required. Electric Water Pump is permitted. Any OEM or production style radiator is permitted and must mount in the stock location. Any cooling fans permitted. Core support is required. Aftermarket Lower core support permitted.

CYLINDER HEADS

The cylinder heads for each specific generation engine listed are the only cylinder heads permitted.

GEN1 - 2011-2014 engine –

RH Cylinder Head: PN # RFBR3E-6090-CD or RFBR3E-6090-CE

LH Cylinder Head: PN # RFBR3E-6C064-CD or RFBR3E-6C064-CE

GEN2 - 2015-2017 engine – Ford Part# FR3Z-6049-A & FR3Z-6049-B

GEN3 – 2018-current engine –

RH Cylinder Head: PN # M-6049-M50B (casting RFJR3E-6090-BH)

LH Cylinder Head: PN # M-6050-M50B (casting RFJR3E-6C064-BH)

EFI SYSTEM

Ford Racing Performance Products sealed engine processor PN # CM-12A650-A5LA or PN # BR3A-12A650-AVD for GEN1 engines, PN # FR3A-12B684-DRA for GEN2 engines and PN # RMJR3A-12A650-AKA for GEN3 engines are the only ECMs permitted. Processor must remain intact, unmodified and must be functional. Any computer “add-ons” is prohibited. Entries are required to run the spec tune provided by FRPP or the Ford Fest. All entries will be subjected to random processor recalibrations and/or exchanges to ensure a level playing field. An OEM supplied stock throttle body mounted in the stock location is required. Maximum throttle body size is 80mm. Any modifications performed to the throttle body are prohibited. The use of aftermarket throttle bodies is prohibited.

All entries are required to use the eight fuel injectors that are supplied with the Ford Coyote Sealed Crate Engine

GEN1 - Part #CM-5187

GEN2 – Part #BR3Z-9F593-A .

GEN3 – Part # JR3E-9F593-AB.

The use of any other fuel injector and/or injectors is prohibited. Any modifications (altering) both external and internal to the eight supplied Ford Coyote Sealed crate Engine fuel injectors is prohibited. Fuel injectors must remain in the stock location. Aftermarket fuel rails are permitted.

At each event, every Coyote Stock entry’s ECM will be flashed with the Ford Fest / FORD Coyote Stock Class Competition tune during initial Tech-In. During the event, from the time the Tune/Flash has been installed, if the competitor is found to have a different and/or modified tune (Tune Verification Failure), that run will be disqualified. More than one occurrence of a competitor’s tune failing to verify can or would result in additional disciplinary action from the Ford Fest Competition department, up to but not limited to Suspension from Ford Fest Competition.

ENGINE

A comprehensive engine component part number list that is used in the building of the Ford OEM Sealed Coyote Crate Engine (Part # M-6007-M505) will be added.

8. OEM Sealed Coyote Crate Engine: Part # M-6007-M50S (GEN1) M-6007-M50SA (GEN2) or M-6007-M50SB (GEN3) are the only engines permitted . Any internal or external engine modifications (including sensors: crank, cam, O2, etc....) are strictly prohibited.
 - a. Gen 2 engines may replace Cam Phaser’s with PART # - M-6004-A50R -5.0L/5.2L Coyote High Performance Cam Phaser, under Tech supervision and reseal.
 - b. Gen 2 engines may replace VCT Solenoids with PART # - M-6297-M50A - 5.0L High Strength VCT Solenoids under Tech supervision and reseal.

ENGINE DRIVE BELT SYSTEM

OEM or Aftermarket alternator and or water pump pulleys permitted.

ENGINE MOUNTS & LOCATION

Solid engine mounts are permitted. Engine/Motor plates are prohibited. Engine block and cylinder heads cannot be in contact with the firewall.

EXHAUST SYSTEM

Aftermarket long tube style headers are permitted with a maximum outside diameter primary tube size of 1.75 inches. Complete exhaust system with two mufflers is required. Maximum exhaust tubing diameter is 3 inches and must exit within 12 inches of the rear axle centerline.

FUEL

VP Racing Fuels C-10 is the only gasoline allowed. Tech reserves the right to inspect fuel at any time during competition. Failure to pass Fuel Check is grounds for disallowance of the run during competition and disqualification from the event during eliminations.

Fuel is checked using various means. Samples given to Fuel Check Technical Inspectors are compared to data taken from known fuel samples provided by VP, adjusted for temperature, and within a tolerance determined by Tech. Failure occurs when the sample readings fall outside those tolerances.

FUEL SYSTEM

Aftermarket fuel pumps along with one aftermarket fuel pressure regulator permitted. Maximum fuel pressure measured at the regulator is 65psi. All fuel lines must originate and return to one fuel cell. Any method of artificially cooling fuel is prohibited. A check valve mounted between pressure regulator and fuel rails for fuel removal is mandatory. All Fuel Samples must be supplied through the Check Valve between pressure regulator and fuel rail. All entries will be subjected to random fuel checks. Fuel cells are permitted and must be located in the trunk area.

HARMONIC BALANCER

SFI approved harmonic balancer is required

INTAKE MANIFOLD

Stock Ford OEM supplied intake manifold is the only intake permitted for all entries.

Gen2 engines (M-6007-M50SA) may use MMR part# 477191 IMRC (Intake Manifold Runner Control) deletes. Removal of IMRC actuators, sensors, and vacuum lines are permitted.

OILING SYSTEM

Ford OEM supplied unmodified oiling system and oil pan required. Any external oil pumps, oil lines, vacuum pump/crankcase ventilation system, or any other oil system add-on is prohibited. With the Exception - Any aftermarket crankcase ventilation to a Catch Can or Filter is permitted. (For further explanation on design and/or function contact the Tech Department)

Aftermarket Oil Accumulators are permitted (use of Oil Filter adapter to accommodate accumulator permitted).

For proper performance of the cam phasers and chain tensioners on Gen 2 Engines, Ford Performance Parts recommends the following oil and oil fill:

- Motorcraft SAE 5W-50 Full Synthetic XO-5W50-QGT or equivalent
- 8 quarts

MASS AIR FLOW SENSOR

Aftermarket mass air housing permitted. Stock OEM, unmodified sample tube and elements as produced by Ford required.

Gen1 or Gen2 Mass air sensor is required to be functional with and inside diameter (ID) no larger than 112mm or 4.406 inches.

Gen3 Mass air sensor is required to be functional with and inside diameter (ID) no larger than 120mm or 4.725 inches.

Mass air sensor must be no closer than 9 inches to the throttle body to the sensor and no further than 18 inches away from the throttle body to the sensor.

Approved Mass Air Flow Sensor-

GEN1 - 2011-2014 Engine - OEM Ford Part# BR3Z-12B579

GEN2 - 2015-2017 Engine - OEM Ford Part# 8V2Z-12B579-A

GEN3 – 2018-Current Engine – OEM Ford Part# 8V21-12B579-AA

RELUCTOR RING

The following Reluctor Rings for the specific Generation engines are the only reluctor rings permitted.

GEN1 Ford PN# BR3Z-12A227-A

GEN2 Ford Racing PN# M-12A227-CJ13

GEN3 Ford Racing PN# JR3E-12A227-AA

Reluctor ring must be as produced and unmodified from Ford.

DRIVETRAIN: 2

AUTOMATIC TRANSMISSION

The Ford C4 is the only the only automatic transmission permitted. The C4 is allowed to use any torque convertor and trans-brakes are permitted. Pneumatic, electric, hydraulic, etc. shifters are prohibited. All vehicles running quicker than 9.99 or faster than 135 mph using an automatic transmission must be equipped with a transmission shield meeting SFI Sec 4.1, a flexplate meeting SFI Spec 29.1, and covered by a flexplate shield meeting SFI Spec 30.1.

CLUTCH

Clutch and Flywheel meeting SFI Spec 1.1 or 1.2 is required. Diaphragm Pressure Plate assembly is required. Single Clutch Disc with a minimum of 10 inches in diameter is required. Factory style cable mechanism for clutch operation is required. 2005 and up Mustangs are allowed to retro---fit to the 79'--04' factory style cable mechanism. Clutch release must be manually operated by driver's foot. The use of electronics, pneumatics, hydraulics, or any other device is prohibited from assisting clutch system/operation. Unmodified Clutch Tamer is permitted. Steel or Aluminum flywheel shield meeting SFI Spec 6.1 is mandatory. Flywheel shield cannot be modified for clutch adjustment and/or cooling holes.

DRIVELINE

Any steel or aluminum driveshaft is required. Carbon fiber driveshaft is prohibited. Driveshaft safety loop is required. Driveshaft safety loop is required. Titanium Driveline Components prohibited unless OEM Factory Equipped. Example: Axles, Brake rotors, Calipers, Etc.

MANUAL TRANSMISSION

Only specified Ford OEM or aftermarket manual transmissions permitted. All transmissions are required to be unmodified from the manufacturer which also includes the following: helical or straight-cut gear sets and counter shafts. All gear changes must occur directly from the driver. Pneumatic, hydraulic, electric, etc. shifters are prohibited. Clutch-less transmissions are prohibited. Clutch must be used to change gears in a conventional manner. Pro-shifting is permitted on all transmissions. All manual

Transmission shifters must maintain an H pattern. Aftermarket shifter with a single pivot ball shifting arm that uses Ford OEM mounting holes is required. Floor-shift conversion kits are permitted.

Approved Manual Transmission List

Below is the approved manual transmission for this category. If a manual transmission is not on this list, it is prohibited.

- Tremec T5(a)
- Tremec T5(b)
- Tremec T45
- Tremec T56(a)
- Tremec T56 (b)
- Tremec TR3550
- Tremec TR3650
- Tremec TKO/TKOII
- Tremec TKX
- T5 w/G-Force PN#5000 Dog Ring
- T5 PN #5000 Dog Ring –
- T5 w/G-Force PN#5000 Syncro -
- Tremec TR3550/TKO/TKOII w/Liberty Gear PN#LG3500
- Tremec TKO-500
- Tremec TKO-600
- Tremec TKO PN #LGT318
- Tremec TKO PN #LGT297
- Tremec TKX
- G-Force –G101A, GF4A
- Jerico –DR4 -
- Liberty -LSC 5000 4-Speed
- Andrews Transmission –A431 H-Pattern 4-speed

REAR END

Any OEM automotive type rear end permitted.

BRAKES, STEERING & SUSPENSION: 3

BRAKES

Front and rear hydraulic brakes are required. Carbon brakes are prohibited. Automated brakes are prohibited. The application and release of the brakes must be a function of the driver. Dual reservoir master cylinder is required. Line-lock is permitted only on the front wheels using one line-lock button and solenoid. Any other electrical, pneumatic, hydraulic, etc. switch in braking system is prohibited. Titanium Brake Components prohibited unless OEM Factory Equipped. Example: Brake Rotors, Calipers, Etc.

FRONT SUSPENSION

Post 1978 and Newer Vehicles: Stock, aftermarket or tubular type K-member permitted. K-member must mount in its original location. K-member may be notched for oil pan clearance. Factory strut/shock towers are required. Bolt-on type caster/camber plates are permitted. Factory or commercially available controls arms and spindles are permitted.

Pre-1978 and Older Vehicles: The use of commercially available bolt-on front suspension kits for engine fitment is permitted. Factory strut/shock towers are allowed to be modified for engine fitment and must maintain an OEM appearance.

REAR SUSPENSION

Stock rear type suspension is required. Racing style 4-link and ladder bar type suspensions are prohibited. Stock type suspension may utilize any commercially available direct bolt in shocks, springs, leaf springs or factory style 3-link/4-link suspension systems for the particular year/make/model of car being used. Leaf springs are allowed to be moved inboard. Torque arm style suspensions are only permitted on OEM equipped vehicles. Bolt-on traction devices, panhard bars and anti-roll bars are permitted.

SHOCKS/STRUTS

Stock replacement type shocks in the rear and struts in the front are required. Coil-over struts are permitted. Front Shock/strut must mount in stock location. Rear Shock mounts may be relocated inboard. Shocks/struts must be stand-alone and cannot be adjustable during a run. Rear coil over shocks are prohibited. Electronic programmable shocks/struts are prohibited. Spindle mount type struts are prohibited.

STEERING

Any OEM automotive production type steering system permitted.

WHEELIE BARS

The use of wheelie bars is prohibited.

FRAME: 4

CHASSIS

All vehicles must have a chassis that meets the guidelines set by SFI for their respective speed and elapsed time. A valid NHRA serialized Chassis sticker is mandatory for any car running 9.99 (6.39 = 1/8 mile) or quicker, or 135mph or faster at a NHRA member track.

FRAME

Front and rear frame rails must remain unaltered and in the stock locations. Rear frame rails may be notched for tire clearance only. Notching rear frame rails for rear end clearance/ride height purposes is prohibited. Sub frame connectors are permitted.

GROUND CLEARANCE

A minimum of 4 inches from the front of the vehicle to the centerline of the front spindle is mandatory. A minimum of 3 inches for the rest of the vehicle is mandatory (except for oil pan, oil pan saver and exhaust headers).

WHEELBASE

Entries must retain stock wheelbase dimensions of + or – 1 inch. Maximum wheelbase variation from left to right is 1 inch.

TIRES & WHEELS: 5

TIRES

The use of 28-inches tall by 10.6-inches wide or smaller bias-ply slicks is permitted. Tire tread may not extend outside of the fender.

WHEELS

Aftermarket racing wheels permitted. Spindle mount type front wheels are prohibited.

INTERIOR: 6

PEDALS & PEDAL LOCATION

Stock type pedals and linkage in the factory location are required.

UPHOLSTERY

Must have full factory type upholstery, including carpet, door panels, headliner, and factory dash. Driver's and passenger's seats are required and mounted in the stock location. Aftermarket front seats are permitted and must be upholstered. Rear seat, heater and A/C controls may be removed.

STEERING COLUMN/WHEEL

OEM or stock type steering column required. Aftermarket steering columns and steering wheels are permitted. Steering column must have a factory appearance. Removable steering wheel is permitted.

BODY: 7

APPEARANCE

All cars in competition must be painted or wrapped. Advertising graphics are permitted on the body. SGMP does require all entries to run the following decals:

- Class Sponsor: Decal must be located on the passenger's side lower portion of the windshield.
- VP Racing Fuels: Official Fuel decals (2) required. Must be located on each side of vehicle. (In a contingency decal manner)
- Class & Competition Numbers: Numbers must be easily visible/legible and located on the front, back, and both side windows

BODY

Any Domestic or Foreign Body Permitted. Body must retain original appearances and profiles for year, make and model being used. OEM body shell must be intact. Light weight body panels are restricted to hood, bumpers and deck-lid/truck-lid or hatch. Hood may be a lift-off style and deck-lid/trunk-lid or hatch must be hinged. Lift off style deck-lid/trunk-lid or hatch is prohibited. Alterations or aerodynamic modifications are prohibited.

BUMPERS

No body components, bumper add-ons, sill plates, chin spoilers, body kits, license plate frames, Air boxes etc. are permitted to be added to the nose of the vehicle or extend below the bumper. "Outlaw" style bumpers are prohibited. For Bumper approval, send pictures to Ford Fest Tech Director.

COWL AREA

Complete OEM cowl is required. Cowl cover permitted.

FIREWALL

Stock, unaltered firewall is required. Reasonable clearance of fire wall permitted for charge valve. Any holes in firewall must be sealed to separate the engine bay from interior.

FENDER SPLASH PANS

Full, factory OEM or aftermarket inner fenders are required.

FLOOR

The driver's/passenger's floor, including transmission tunnel must be unaltered and in the stock location. Any holes in floor and/or transmission tunnel must be sealed.

GRILLE

Grille must be full production for make, model and year being claimed. Covering in front of or behind the grille is prohibited.

HOOD SCOOPS

The use of aftermarket forward facing hood scoops is prohibited. OEM hood scoops are permitted and must be sealed off from fresh air. Cowl induction style hood is permitted with a maximum height of 6 inches. Cowl height will be checked from the tallest point of the hood to the fender line.

STREET EQUIPMENT

Headlights and operational tail lights/brake lights are required.

WHEEL WELLS

Factory wheel wells/tubs are required. Widening/sectioning for tire fitment is permitted and must maintain an OEM appearance. Aftermarket style mini-tubs are permitted.

WINDSHIELD & WINDOWS

ALL OEM glass is required.

Optic Armor stock replacement Windshield and Rear Glass permitted per manufacturers recommended specs.

WING/SPOILERS

Rear wing/spoiler is permitted with a maximum length of 26 inches. Rear wing/spoiler will be measure from the transition point of the deck-lid/trunk-lid to the rear most portion of the wing/spoiler. Any adjustments to the wing/spoiler during a run are prohibited.

ELECTRICAL: 8**BATTERIES/CHARGING SYSTEM**

Battery may be relocated and must be an automotive type. Only a single battery may be present and or used in the vehicle during competition.

IGNITION/ENGINE HARNESS/TWO STEP

Stock unmodified Ford ignition is required. A stand-alone two-step rev-limiter is permitted. Two-step is allowed to piggy-back with existing connector and must retain the standard functions of a two-step.

-GEN1 engine may use MSD TWO STEP Part #8731. No modifications to engine harness permitted.

-GEN2 engine may for the sole purpose of adding a Two-Step use engine harness Ford OEM part #FU5Z-12A581-J or FU5Z-12A581-E with the FRPP Control Pack Part# M-6017-504V.

-GEN3 engine may for the sole purpose of adding a Two-Step, use OEM engine harness JU5Z-12A581-C and reverse the factory coil connector wires on the #3 cylinder.

MSD Two Step part #87311 Permitted. The use of any down track RPM limiting device, other than the supplied Coyote tune, High side RPM limiter is prohibited. Any modifications performed to the Ford harness or its sensors are strictly prohibited.

MASTER CUTOFF

A master cutoff switch is mandatory on all vehicles with a battery located in the trunk.

STARTER

Aftermarket starters, in stock location permitted.

TACHOMETER

GEN1 – Use wiring provided in Wiring Harness.

GEN2 – A Tach Adapter is permitted to be used with Ford Racing Control Pack part# M-6017-504V. A splice is permitted to the Grey (coil positive supply) wire between Connector #146 (Item "U" in Control Pack Instructions pages 8 & 9) and FPPDB (Ford Performance Power Distribution Box, Item "C" in Control Pack Instructions pages 8 & 9) for the only purpose of connecting a Tach Adapter.

GEN3 – Tach adapter TBA

WIRING HARNESS/LOOM

GEN1 – M-6017-A504VB CONTROL PACK UNMODIFIED is mandatory.

GEN2 – M-6017-504V CONTROL PACK UNMODIFIED is mandatory.

GEN3 – M-6017-M50B CONTROL PACK UNMODIFIED is mandatory.

Any modifications to harness/loom and any electrical sensors are strictly prohibited.

SUPPORT GROUPS: 9

Approved Data Loggers:

- Racepak: V300SD, Sportsman Series/IQ3
- AEM: AQ-1
- Port-a-Tree Data: Electronic Switch Panel
- Computech: Data Max
- RPM Performance Products: DL10
- Performance Trends: DataMite III
- Altronics: DataQuest
- Holley Digital Dash
- Haltech IC-7 Colour Display Dash
- Motec C1

BRACKET RACING AIDS

The use of any bracket racing aids such as optical sensors, delay boxes, shutter boxes, throttle stops, etc. are prohibited. The use of any device (electrical or mechanical) that allows a driver to ascertain the position of their vehicle to the starting line is prohibited.

COMPUTER/DATA RECORDERS

Only approved external data recorders, data loggers, are permitted. Any wide-band O2 device must be capable of only logging air/fuel ratio, and may not be run in closed loop with EFI or ignition system. Only a single O2 sensor is permitted to be installed in each header collector. Playback tachometers permitted including those that record driveshaft RPM. Laptops prohibited in vehicle during competition.

TOW VEHICLES

The use of tow vehicles is permitted.

DRIVER: 10

CREDENTIALS

A Valid state or government issued driver's license beyond a learner/s permit level is mandatory for cars running 10.00 or slower. A valid NHRA competition license is mandatory for cars running 9.99 or quicker, at a NHRA Member Track. A valid NHRA or an IHRA competition license is mandatory at an IHRA Member Track.

Note: It is ultimately the competitor's responsibility to familiarize themselves with the class requirements as well as ***all NHRA safety requirements***. The competitor agrees they bear the ultimate responsibility when it comes to safety and how it complies with the NHRA rule book. The competitor also agrees that no one else other than the competitor is in the best position to know about how their particular race car has been constructed and how to safely operate it.

DRIVER

The driver when in the vehicle, from the ready line until the vehicle is safely stopped on the return road, **is required to have all safety restraint systems (including the helmet) on and be securely fastened in the vehicle at all times**

A head and neck restraint device/system meeting SFI 38.1 is mandatory for any vehicle running 150 mph or faster for 1/4 or 1/8 mile or running 7.49 (*4.49) E.T. or quicker or by Class Requirements. An SFI 38.1 head and neck restraint device can be used with, or without, a neck collar; when a neck collar is not used, an SFI 3.3 head sock or SFI Spec 3.3 skirted helmet is required.

Chevrolet Performance Stock

CLASS OVERVIEW

CP Stock is a naturally aspirated heads-up class designed for 1955 and newer American Production bodied vehicles. Designed as a low cost, entry level heads-up class. CP Stock is designed around competitors using a production OEM Sealed Chevrolet Performance DR525 crate engine combined with a factory Chevrolet Performance sealed ECM and installation kit. This helps control the ever rising expenses associated with competitive heads-up drag racing and allows racers to explore other avenues to gain a performance advantage. All entries must compete on accepted suspension and at the same base weight.

Note: This set of class rules is presented to all competitors under the assumption that any modifications not specifically written within these rules shall be deemed illegal, unless the competitor has the expressed written consent from the NMCA Tech Director.

CLASS DESIGNATION = CPS

Class Car Numbers - 10000-10999

RACING FORMAT

This class will be an all run heads-up field, **NHRA Pro Ladder**, Autostart, .400 Pro Tree.

ENGINE MAX CID BASE WEIGHT

Chevrolet Performance DR525 – 3000 lbs

Note: All weights are with driver and rounded down to the nearest five pound increment.

REQUIREMENTS & SPECIFICATIONS

ENGINE: 1

ENGINE

OEM Sealed Chevrolet Performance DR525 is mandatory for all entries. Any internal or external engine modifications (including sensors: crank, cam, O2, etc...) are strictly prohibited. Remanufactured engines are **prohibited**.

Chevrolet Performance Sealed Engine Technology produces the DR525 has a uniquely identifiable engine seal at each of the following locations:

2 seals on the intake manifold

1 seal on the front cover

1 seal on the oil pan

(Below are the only 2 approved engine kit part numbers, which include the engine and instruction sheets)

Chevrolet Performance Part # 19329008 or 19369327(DR525 crate engine with F-car oil Pan engine kit)

Chevrolet Performance Part # 19329009 or 19369329(DR525 crate engine with muscle car oil Pan engine kit)

BLOCK

(Below are the only 2 approved block part #s)

Chevrolet Performance Block Part # 12623967

Chevrolet Performance Block Part # 12629017.

HARMONIC BALANCER

SFI approved harmonic balancer with a minimum diameter of (7.33) inches is required. Diameter will be measured from the top of the serpentine belt ribs located on the balancer.

ENGINE MOUNTS & LOCATION

Solid engine mounts are permitted. Engine/Motor plates are prohibited. Engine block and cylinder heads cannot be in contact with the firewall.

INTAKE MANIFOLD

Stock Chevrolet Performance OEM supplied intake manifold is the only intake permitted for all entries.

OILING SYSTEM

Chevrolet Performance OEM supplied unmodified oiling system and oil pan required. Any external oil pumps, oil lines vacuum pump/crankcase ventilation system, or any other oil system add-on is prohibited. OEM recommended Oil Accumulators are permitted

COOLING SYSTEM

Radiator and water pump is required. Any OEM or Electric water pump permitted. Any production style radiator is permitted and must mount in the stock location. Any cooling fans permitted. Aftermarket or Modified core support is permitted.

EXHAUST SYSTEM

Aftermarket long tube style headers are permitted with a maximum outside diameter primary tube size of 1.930 inches. Maximum exhaust tubing diameter is 4 inches.

FUEL SYSTEM

Chevrolet Performance Filter/pressure regulator Part #19239926 is recommended. Aftermarket fuel pumps along with one aftermarket fuel pressure regulator permitted. Maximum fuel pressure measured at the regulator is 65psi. All fuel lines must originate and return to one fuel cell. Any method of artificially cooling fuel is prohibited. A check valve mounted between pressure regulator and fuel rails for fuel removal is mandatory. All entries will be subjected to random fuel checks. Fuel cells are permitted and must be located in the trunk area.

EFI SYSTEM

Chevrolet Performance Racing Performance Products sealed engine Controller Part Number # **19432871 (2022 tune)** are the only approved processors for this class.

Processor must remain intact, unmodified and must be functional. Any computer "add-ons" are prohibited. Entries are required to run the spec tune provided by Chevrolet Performance or the NMCA.

All entries will be subjected to random processor recalibrations and/or exchanges to ensure a level playing field. An OEM supplied stock throttle body mounted in the stock location is required. Maximum throttle body size is **90mm**.

Any modifications performed to the OEM throttle body are prohibited. The use of aftermarket throttle bodies is prohibited.

Mass air sensor must be no closer than 4 inches to the throttle body to the sensor and no further than 12 inches away from the throttle body to the sensor. Aftermarket mass air housing permitted. Mass air sensor is required to be functional.

Eight unmodified OEM supplied fuel injectors are mandatory. Fuel injectors must remain in the stock location. Aftermarket fuel rails are prohibited.

AIR FILTER SYSTEM

Any automotive type aftermarket air filter system required. Recommend a Dry Media Type air filter. All incoming air entering the engine must pass through an air filter system.

FUEL

VP Racing Fuels C-10 is the only gasoline allowed. NMCA reserves the right to inspect fuel at any time during competition. Failure to pass Fuel Check is grounds for disallowance of the run during competition and disqualification from the event during eliminations.

Fuel is checked using various means. Samples given to Fuel Check Technical Inspectors are compared to data taken from known fuel samples provided by VP, adjusted for temperature, and within a tolerance determined by NMCA. Failure occurs when the sample readings fall outside those tolerances.

DRIVETRAIN: 2

CLUTCH

Clutch and Flywheel meeting SFI Spec 1.1 or 1.2 is required. Diaphragm Pressure Plate assembly is required. Single Clutch Disc with a minimum of 10 inches in diameter is required. Factory style mechanism for clutch operation is required. Clutch release must be manually operated by driver's foot. The use of electronics, pneumatics, hydraulics, or any other device is prohibited from [assisting](#) clutch system/operation. Unmodified Clutch Tamer is permitted. Steel flywheel shield meeting SFI Spec 6.1 is mandatory. Flywheel shield cannot be modified for clutch adjustment and/or cooling holes.

MANUAL TRANSMISSION

Only NMCA specified manual transmissions permitted. All transmissions are required to be unmodified from the manufacturer which also includes the following: helical or straight-cut gear sets, and counter shafts. All gear changes must occur directly from the driver. Pneumatic, hydraulic, electric, etc. shifters are prohibited. Clutch-less transmissions are prohibited. Clutch must be used to change gears in a conventional manner. Pro-shifting is permitted on all transmissions. All manual Transmission shifters must maintain an H pattern. Aftermarket shifter with a single pivot ball shifting arm that uses OEM mounting holes is required. Floor-shift conversion kits are permitted.

Permitted Manual Transmissions

- **G-Force –G101A, GF4A**
- **Jerico –DR4**
- **Tremec T56/TR6060**
- **G-Force T56**
- **T56 Magnum**
- **TR6060**
- **Liberty - LCS 5000 4-Speed**
- **Andrews Transmission –A431 H-Pattern 4-speed**

AUTOMATIC TRANSMISSION

Any NON ECM/PCM “COMPUTER” controlled automatic transmission permitted. Permitted transmissions are TH200, 350, 400, Powerglide, 200R, 700R, C4.

Automatic transmission converters must have a steel -case housing and can be bolt-together or weld-together construction.

Trans-brakes are permitted. All trans-brake switches/buttons must be NHRA approved type. The use of any “lock-up” style converter is prohibited.

Pneumatic, electric, hydraulic, etc. shifters are prohibited.

Manipulation of transmission or converter pressure or volume by means of electric, pneumatic, hydraulic, non-OE or aftermarket solenoids or valves is prohibited.

DRIVELINE

Any steel or aluminum driveshaft is required. Carbon fiber driveshaft is prohibited. Driveshaft safety loop is required. Titanium Driveline Components prohibited unless OEM Factory Equipped. Example: Yokes, wheel studs, Axles, Brake rotors, Calipers, Etc.

BRAKES, STEERING &SUSPENSION: 3

BRAKES

Front and rear hydraulic brakes are required. Carbon fiber brakes are prohibited unless factory equipped (Z06, Z/28, ZR1). Automated brakes are prohibited. The application and release of the brakes must be a function of the driver. Dual reservoir master cylinder is required. Line-lock is permitted only on the front wheels using one line-lock button and solenoid. Any other electrical, pneumatic, hydraulic, etc. switch in braking system is prohibited. Titanium Brake Components prohibited unless OEM Factory Equipped. Example: Brake Rotors, Calipers, Etc.

STEERING

Any OEM automotive production type steering system permitted.

SHOCKS/STRUTS

Stock replacement type shocks in the rear and shocks or struts in the front are required. Coil-over struts are permitted. Shock/strut must mount in stock location. Shocks/struts must be stand-alone and cannot be adjustable during a run. Rear coil over shocks are permitted. Electronic programmable shocks/struts are prohibited. Spindle mount type struts are prohibited.

FRONT SUSPENSION

Post 1978 and Newer Vehicles: Stock, aftermarket or tubular type K-member permitted. K-member must mount in its original location. K-member may be notched for oil pan clearance. Factory strut/shock towers are required. Bolt-on type caster/camber plates are permitted. Factory or commercially available controls arms and spindles are permitted.

Pre-1978 and Older Vehicles: The use of commercially available bolt-on front suspension kits for engine fitment is permitted. Factory strut/shock towers are allowed to be modified for engine fitment and must maintain an OEM appearance.

REAR SUSPENSION

Stock rear type or ladder bar suspension permitted. Racing style 4-link suspensions are prohibited. Stock type suspension may utilize any commercially available direct bolt in shocks, springs, leaf springs or factory style 3-link/4-link suspension systems for the particular year/make/model of car being used. Leaf springs are allowed to be moved inboard. Torque arm style suspensions are only permitted on OEM equipped vehicles. Bolt-on traction devices, panhard bars and anti-roll bars are permitted. All NHRA Stock Eliminator approved suspensions. Straight axle conversion on COPO Camaro or any GM car with factory Independent Rear Suspension are permitted. Rear axle conversion style suspensions must be pre approved by NMCA Tech Dept

WHEELIE BARS

The use of wheelie bars is prohibited.

FRAME: 4

CHASSIS

All vehicles must have a chassis that meets the guidelines set by SFI for their respective speed and elapsed time. A valid NHRA serialized Chassis sticker is mandatory for any car running 9.99 (6.39 = 1/8 mile) or quicker, or 135mph or faster at a NHRA member track.

FRAME

Front and rear frame rails must remain unaltered and in the stock locations. Rear frame rails may be notched. Stock front frame rails may be removed or replaced forward of K-member, or forward of front suspension location points.

WHEELBASE

Entries must retain stock wheelbase dimensions of + or – 1 inch. Maximum wheelbase variation from left to right is 1 inch.

GROUND CLEARANCE

A minimum of 4 inches from the front of the vehicle to 12 inches behind front spindle centerline is mandatory. A minimum of 3 inches for the rest of the vehicle is mandatory (except for oil pan and exhaust headers).

TIRES & WHEELS: 5

TIRES

FRONT:

DOT and non-DOT tires are permitted. Front tires must have a minimum width of 4.5 inches.

REAR:

Any 28-inch tall by 10.6-inch wide bias-ply slick or a 275/60/15 or Pro Bracket drag radial tire is permitted.

Any 30-inch tall by 9.0-inch wide Bias-ply slick or Radial is permitted

Tire tread may not extend outside of the fender.

WHEELS

Aftermarket racing wheels permitted. Spindle mount type front wheels are prohibited.

INTERIOR: 6

UPHOLSTERY

Must have full factory type upholstery, including carpet, door panels, headliner, and factory dash. Driver's and passenger's seats are required and mounted in the stock location. Aftermarket front seats are permitted and must be upholstered. Rear seat, heater and A/C controls may be removed.

STEERING COLUMN/WHEEL

OEM or stock type steering column required. Aftermarket steering columns and steering wheels are permitted. Steering column must have a factory appearance. Removable steering wheel is permitted.

PEDALS

Must Use Supplied Accelerator Pedal Assembly included in Chevrolet Performance Controller Kit.
Chevrolet Performance Part # 19329003

BODY: 7

BODY

Body must retain original appearances and profiles for year, make and model being used. OEM body shell must be intact. Light weight body panels are restricted to hood, bumpers and deck-lid/truck-lid or hatch. Hood may be a lift-off style and deck-lid/trunk-lid or hatch must be hinged. Lift off style deck-lid/trunk-lid or hatch is prohibited. Alterations or aerodynamic modifications are prohibited.

HOOD SCOOPS

The use of aftermarket forward facing hood scoops is prohibited. OEM hood scoops are permitted and must be sealed off from fresh air. Cowl induction style hood is permitted with a maximum height of 6 inches. Cowl height will be checked from the tallest point of the hood to the fender line.

GRILLE

Grille must be full production for make, model and year being claimed. Covering in front of or behind the grille is prohibited. Fresh Air Source through Grille is permitted, but design must be preapproved by NMCA Tech Director.

BUMPERS

No body components, bumper add-ons, sill plates, chin spoilers, body kits, license plate frames, etc. are permitted to be added to the nose of the vehicle. "Outlaw" style bumpers are prohibited.

FIREWALL

Stock, unaltered firewall is required.

FENDER SPLASH PANS

Full, factory OEM or aftermarket inner fenders are required.

WINDSHIELD & WINDOWS

ALL OEM glass is required. Optic Armor stock replacement Windshield and Rear Glass permitted per manufacturers recommended specs.

FLOOR

The driver's/passenger's floor, including transmission tunnel must be unaltered and in the stock location. Transmission Tunnel may be modified for Transmission Installation. Transmission Tunnel may not be removable.

WHEEL WELLS

Factory wheel wells/tubs are required. Widening/sectioning for tire fitment is permitted and must maintain an OEM appearance. Wheel well modifications are restricted to 1978 and older vehicles, 1979-newer are required to have stock wheel wells. Aftermarket style mini-tubs are permitted.

WING/SPOILERS

Rear wing/spoiler is permitted with a maximum length of 26 inches. Rear wing/spoiler will be measure from the transition point of the deck-lid/trunk-lid to the rear most portion of the wing/spoiler. Any adjustments to the wing/spoiler during a run are prohibited.

STREET EQUIPMENT

Functioning, Headlights and taillights/brake lights are required.

APPEARANCE

All cars in competition must be painted or wrapped. Advertising graphics are permitted on the body. SGMP does require all entries to run the following decals:

- Class Sponsor: Decal must be located on the passenger's side lower portion of the windshield.
- VP Racing Fuels: Official Fuel decals (2) required. Must be located on each side of vehicle. (In a contingency decal manner)
- Class & Competition Numbers: Numbers must be easily visible/legible and located on the front, back, and both side windows

ELECTRICAL: 8

BATTERIES/CHARGING SYSTEM

Must be a 12 Volt or 16 Volt Battery. Battery may be relocated and must be an automotive type.

IGNITION

Stock unmodified GM ignition is required. Standalone two-step rev-limiter is permitted. Two-step switches (for manual transmission) must be located on clutch pedal only and have at least one half inch clutch engagement travel to activate the two step switch. Two-step system is allowed to piggy-back with existing connector and must retain the standard functions of a two-step. Any modifications performed to the GM harness or its sensors are strictly prohibited.

MASTER CUTOFF

A master cutoff switch is mandatory on all vehicles with a battery located in the trunk.

LINE LOCK

Only one line lock button permitted and must be wired stand alone. Line lock circuit will have no other wiring spliced or attached to its function. Line lock permitted on front brakes only.

STARTER

Aftermarket starters, in stock location permitted.

WIRING HARNESS/LOOM

Chevrolet Performance Wiring Harness PN # 19166573

Chevrolet Performance Map Jumper Harness PN# 19202598

The Chevrolet Performance engine harness/computer loom are mandatory.

Any modifications to harness/loom and any electrical sensors are prohibited.

SUPPORT GROUPS: 9

COMPUTER/DATA RECORDERS

Only NMCA approved external data recorders, data loggers, are permitted. Any wide-band O2 device must be capable of only logging air/fuel ratio, and may not be run in closed loop with EFI or ignition system. Only a single O2 sensor is permitted to be installed in each header collector. Playback tachometers permitted including those that record driveshaft RPM. Laptops prohibited in vehicle during competition.

Approved Data Loggers:

- **Racepak: Sportsman Series**
- **AEM: AQ-1**
- **Port-a-Tree Data: Electronic Switch Panel**
- **Computech: Data Max**
- **RPM Performance Products: DL10**
- **Performance Trends: DataMite III**
- **Altronics: DataQuest**

INDICATOR LIGHT

A small, remote mounted, indicator light wired to the (MIL) malfunction indicator light wire which is available adjacent to the pedal control assembly. The light must be mounted in a highly visible location close to the ALDL (tech port) connector. The MIL wire provides ground path for remote indicator light.

BRACKET RACING AIDS

The use of any bracket racing aids such as optical sensors, delay boxes, shutter boxes, throttle stops, etc. are prohibited. The use of any device (electrical or mechanical) that allows a driver to ascertain the position of their vehicle to the starting line is prohibited.

TOW VEHICLES

The use of tow vehicles is limited to being towed to the staging lanes and or away from the scales.

Vehicles must drive to or manually be pushed to the scales proceeding each qualifying run.

CREW MEMBERS

Each crew member must have the proper starting line credentials and must wear matching attire.

DRIVER: 10

DRIVER

The driver when in the vehicle, from the ready line until the vehicle is safely stopped on the return road, is required to have all safety restraint systems (including the helmet) on and be securely fastened in the vehicle at all times

CREDENTIALS

A Valid state or government issued driver's license beyond a learner/s permit level mandatory for cars running 10.00 or slower.

A Valid NHRA competition license is mandatory for cars running 9.99 or quicker, at an NHRA Member Track. NHRA/IHRA competition license mandatory at an IHRA Member Track.

Note: It is ultimately the competitor's responsibility to familiarize themselves with the NMCA class requirements as well as all NHRA safety requirements. The competitor agrees they bear the ultimate responsibility when it comes to safety and how it complies with the NMCA and NHRA rule books. The competitor also agrees that no one else other than the competitor is in the best position to know about how their particular race car has been constructed and how to safely operate it.