



## Holbrook Racing Engines Factory Stock

(Revised 7/23/18)

### CLASS OVERVIEW

Factory Supercars is an eliminator designed for the Detroit-based OEM companies to compete heads-up with the modern factory drag racing cars dubbed Chevrolet COPO Camaro, Dodge Challenger Drag Pak, and Ford Cobra Jet Mustang. The cars will adhere to the “stock” type limitations, run heads-up with no breakout, and launch off a Pro-tree start. It is the rebirth of factory muscle car drag racing on the quarter-mile dragstrip.

### CLASS RULES

2008 and Newer - Chevrolet COPO, Ford Cobra Jet and Dodge Drag Pak. Different year engine configurations may be transplanted into different year bodies as long as they are the same make and model. Example: 2017 Copo engine may be transplanted into a 2008 Camaro. Cross breeding of brands is strictly prohibited.

### CLASS DESIGNATION = FS

### RACING FORMAT

This class will be an all run heads-up field, NHRA Pro Style Ladder, on a .500 Pro Tree, Autostart.

| <u>Engine</u> | <u>Power Adder</u> | <u>Base Weight</u> |
|---------------|--------------------|--------------------|
| Ford 5.0L     | 2.9L Whipple       | 3550               |
| Ford 5.4L     | 2.3L TVS/Eaton     | 3300               |
| GM 5.3L       | 2.9L Whipple       | 3300               |
| GM 5.7L       | 2.9L Whipple       | 2550               |
| Mopar 5.7L    | 2.8L Whipple       | 3550               |

### Note:

All above listed engine combinations will be based off of the NHRA’s Stock Eliminator engine specifications chart. Factory built cars or “clones” permitted.

### REQUIREMENTS & SPECIFICATIONS

#### ENGINE: 1

#### Block

Any Factory OEM or NMCA approved direct replacement engine block is permitted. Maximum cylinder bore over stock is .080-iches. Bores will be measured at the top of the cylinder where ring wear is not evident. Cylinder blocks may be sleeved.

#### HARMONIC BALANCER

SFI Spec 18.1 balancer is required.

## **ENGINE MOUNTS & LOCATION**

Engine/motor plates and mid-plates are permitted. Engine must be in the stock location. Engine block and cylinder heads may not be in contact with the engine firewall.

## **CRANKSHAFT**

Stock or NMCA accepted aftermarket crankshafts are permitted. Aftermarket crankshaft must retain OEM configuration (i.e., billets, knife edging, etc. prohibited). Stroke tolerance is +/- .015- inch. Lightning of crankshaft (other than normal balancing) is prohibited.

## **CONNECTING RODS**

Stock or NMCA accepted aftermarket connecting rods are permitted. Length must be stock +/- .025-inch center to center. The use of connecting rod and crank spacer bearing is prohibited. The combined weight of the piston, pin, rings and connecting must be equal to or greater than the NHRA stock replacement minimum assembly weight.

## **PISTONS & PINS**

Stock or NMCA accepted aftermarket pistons and pins are permitted. Aftermarket pistons may be forged or cast and must retain as-cast or as-forged head configuration. Piston must be the same overall design with the same dome and/or dish configuration as the factory OEM piston. The pistons must retain the correct number, location, depth and width of ring grooves. Any steel wrist pin of OEM diameter permitted. Any modifications to the piston and/or pin are prohibited.

## **PISTONS RINGS**

Stock or NMCA accepted aftermarket piston rings are permitted. Aftermarket piston rings must retain factory OEM dimensions.

## **TIMING CHAINS**

Aftermarket timing covers are permitted as long as factory OEM type timing gears and chains are used. Aftermarket gear drives and/or belts are prohibited.

## **CAMSHAFT**

Camshaft must maintain stock lift for year, make and model of car being used. Aftermarket or factory lifters are permitted.

## **LIFTERS/LASH ADJUSTERS**

Aftermarket or factory lifters/lash adjusters are permitted.

## **VALVE SPRINGS**

Any valve springs are permitted.

## **CYLINDER HEADS**

All cylinder heads must be unmodified and meet all dimensions for year, make and model being claimed. This includes intake port runners, exhaust port runners and combustion chambers. Regardless of poured volumes any modifications to the cylinder heads are strictly prohibited.

## **INTAKE MANIFOLD**

Intake manifold must be the factory OEM manifold for the year, make and model of engine claimed. Any alterations and/or modifications to the intake manifold are prohibited.

## **SUPERCHARGER**

Whipple 2.9L or 2.3L TVS are the only superchargers permitted. Throttle bodies must remain in the stock location for year, make and model of engine being claimed. Modifying the supercharger is prohibited. 2.9L Whipple supercharger rotors can be no more than 268 millimeters (10.550 inches) in length and no larger in diameter than 104.4 millimeters (4.110 inches). If you are unsure of the size of your supercharger rotor, please contact Whipple Superchargers for confirmation.

## **INTERCOOLING**

Factory OEM intercoolers and intercooler tanks must be retain for year, make and model being claimed.

## **OILING SYSTEM**

Any oil pan permitted. Stock or aftermarket OEM type oil pump is permitted. Oil pump location, oil pump drive, and complete oiling system must remain as originally produced. The use of an accumulator is permitted.

## **COOLING SYSTEM**

Full size stock type radiator for year, make and model being claimed is required. Aluminum radiators are permitted. Any cooling fans are permitted. Any aftermarket factory OEM type water pump is permitted. Water pump must bolt onto the factory location without any modifications.

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## **EXHAUST SYSTEM**

Any tubular headers are permitted.

## **FUEL SYSTEM**

Any electric fuel pump permitted. Electric fuel pump must shut off with vehicle's ignition switch or master cut-off switch. Fuel lines may be changed to any size line with in-line fuel filters and fuel regulators permitted. Factory gas tanks and aftermarket fuel cells are permitted. When using a fuel cell, a rear firewall of a minimum .032 inch aluminum or .024 inch steel must be installed to totally seal driver compartment from fuel cell.

## **EFI SYSTEM**

OEM or any commercially available mass-produced OEM type aftermarket fuel-injection system permitted. Any size/type of fuel injector permitted with a maximum of 8 injectors located in the stock location.

## **THROTTLE BODY**

Throttle body must be the correct size for year, make, make and model of engine being claimed.

## **AIR INTAKE/BOX**

Air Intake/Box must be correct for year, make and model of engine being claimed or have prior approval from NMCA Tech department.

## **THROTTLE LINKAGE**

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

## **FUEL**

Gasoline as outlined here is the only acceptable fuel for use in this eliminator. The NMCA reserves the right to check gasoline at any time during competition. Gasoline, as defined by the NHRA rulebook, is a mixture of hydrocarbons only. The average dielectric constant (D.C.) for the hydrocarbons that compromises gasoline is 2.025. This is defined as a reading of "0" on the fuel-check meter. NMCA allows no greater reading than a "0" on the fuel check meter. Failure to pass fuel check is grounds for disallowance of the run during competition and disqualification from the event during eliminations.

## **DRIVETRAIN: 2**

### **CLUTCH**

Clutch and flywheel meeting SFI Spec 1.1 or 1.2 (2-disc maximum) is mandatory. Steel flywheel shield meeting SFI Spec 6.1 or 9.1 mandatory. Flywheel shield cannot be modified for clutch adjustment and/or cooling.

### **MANUAL TRANSMISSION**

OEM or NMCA accepted aftermarket transmissions having same number of forward speeds as original and reverse may be used. All gear changes must be a direct action from the driver. Pneumatic, electric, hydraulic, etc. shifters are prohibited. Floor shift conversions kits are permitted. Clutch-less transmissions are prohibited. Clutch must be used to change gears in a conventional manner.

### **AUTOMATIC TRANSMISSION**

Any model transmission same make as car, with a maximum of three forward speeds (unless OEM equipped with more forward speeds) permitted. Any gear change must occur as a result of an internal function of the transmission or from a direct action of the driver. Pneumatic, electric, hydraulic, etc. shifters are prohibited.

Lockup Torque Convertor's prohibited. Transbrake's prohibited.

### **DRIVELINE**

Any steel or aluminum driveshaft is required. Carbon fiber driveshaft is prohibited. Driveshaft safety loop is required.

### **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.

### **SHOCKS/STRUTS**

No pneumatic or electronic shocks permitted unless such items are Factory OEM equipped. No additional reservoirs permitted.

### **FRONT SUSPENSION**

Complete stock front suspension systems as produced by manufacturer for year, make, model being used. Aftermarket tie rod ends with Heim joints are permitted.

### **REAR SUSPENSION**

Factory OEM rear suspension for year, make and model being used is mandatory. Cars equipped with coils may be relocated. Sway bars are permitted.

### **WHEELIE BARS**

Wheelie bars are permitted and cannot be longer than 48-inches or to the rear bumper, whichever is greater.

## **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.

### **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**

The use of 30-inches tall by 9-inches wide or smaller slicks is required. Rear tires may not exceed 10-inches wide regardless of wear. Tire tread may not extend outside of the fender.

#### **WHEELS**

Aftermarket racing wheels permitted.

#### **INTERIOR: 6**

##### **UPHOLSTERY**

Must have full factory type upholstery, including carpet, door panels, headliner, and factory dash. Driver's seat is 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. Steering column must have a factory appearance. Removable steering wheel is permitted.

##### **PEDALS & PEDAL LOCATION**

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

#### **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. Factory OEM hood scoops are permitted

##### **COWL AREA**

Complete OEM cowl is required.

##### **GRILLE**

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

##### **FIREWALL**

Stock, unaltered firewall is required. 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.

#### **WINDSHIELD & WINDOWS**

All Factory OEM glass is required and must be operational.

#### **FLOOR**

Complete stock floor, in the stock location is mandatory. Any holes in floor and/or transmission tunnel must be sealed.

#### **WHEEL WELLS**

Factory wheel wells/tubs are required.

#### **WING/SPOILERS**

Factory OEM rear wing/spoiler are permitted. Any adjustments to the wing/spoiler during a run are prohibited.

#### **STREET EQUIPMENT**

Headlights and operational taillights/brake lights are required.

#### **ELECTRICAL: 8**

##### **BATTERIES/CHARGING SYSTEM**

Battery may be relocated and must be an automotive type.

##### **DISTRIBUTOR**

Any battery operated, stock type ignition is permitted. Crank trigger systems prohibited unless OEM distributor-less ignition. Distributor-less ignition must retain OEM number of coils.

##### **IGNITION**

Two-step permitted. Two-step must be foot-activated through brake pedal, clutch pedal, or pressure switch. Hand release is prohibited. All wiring associated with the ignition system must be fully visible and traceable.

##### **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**

##### **COMPUTER/DATA RECORDERS**

Original OEM computer may be replaced with an aftermarket computer. Data recorders are permitted.

##### **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.

**Purse Pending**