



## PRO MODIFIED

### PRO MODIFIED

Pro Modified is a category where only boosted applications are permitted, meeting the specific rules of the category as listed below. Pro Mod (PM) is contested on a .400 pro tree and is qualified based off elapsed time, from quickest to slowest. 32-car qualified field, unless there are fewer than 20 cars entered, in which reverts to a 16-car qualified field with a professional pairing ladder.

#### DESIGNATION

PM followed by car number. Number must be at least four inches high. Competition numbers must be located on both side windows, windshield, and rear window. IHRA mandates the class sponsor decals and IHRA decals on all entries, in all classes. If you choose to apply to our contingency program, those decals are required as well and available at the IHRA registration trailer. The sponsor and IHRA decals must be on the vehicle at the time of technical inspection and will stay on the car for the entirety of the event. Contingency stickers also must be on the vehicle at the time of technical inspection and will be viewed before the final round of eliminations for verification by an IHRA official.

All rules are subject to change at any time given the sole discretion of the IHRA Technical Services Department.

#### MINIMUM WEIGHT REQUIREMENTS

***ALL WEIGHTS INCLUDE DRIVER AT CONCLUSION OF RUN***

BB Roots Supercharger (No Lock-Up) – 2,445 lbs.

BB Roots Supercharger (With Lock-Up) – 2,480 lbs.

BB Centrifugal Supercharger (No Lock-Up) – 2,625 lbs.

BB Centrifugal Supercharger (With Lock-Up) – 2,650 lbs.

BB Screw Supercharger (92% Max Overdrive) (No Lock-Up) – 2,635 lbs.

BB Screw Supercharger (92% Max Overdrive) (With Lock-Up) – 2,685 lbs.

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BB Twin Turbocharger (88mm, no lock-up) – 2,635 lbs.

BB Twin Turbocharger (88mm, with lock-up) – 2,685 lbs.

SB Single Turbocharger (122mm, lock-up permitted) – 2,150 lbs.

SB Single Turbocharger (131mm, lock-up permitted) – 2,250 lbs.

### **Overdrive, Weight Additions/Reductions (boost):**

- Add 25 lbs. for Transmission with four (4) or more forward gears.
- Deduct 25 lbs. for Nostalgia Body Style, see body section for clarification.
- 98% overdrive allowed for Nostalgia Body Styles with 4.8 bore space engine and Screw Supercharger
- Deduct 50 lbs. for F3R-136 Centrifugal Supercharger.

BB Nitrous (911ci +) - 2365 lbs.

BB Nitrous (910ci or less) – 2300 lbs.

5.300" maximum bore spacing

12.6" maximum deck height

### **Weight Additions/Reductions (nitrous)**

- Add 15 lbs. for transmissions with four (4) or more forward gears (converter combos only)

## **REQUIREMENTS & SPECIFICATIONS ENGINE: 1**

### **COOLING SYSTEM**

Radiator permitted, electrically driven fan and water pump permitted.

### **CYLINDER HEADS**

Billet heads are permitted. Maximum one spark plug per cylinder.

Maximum two valves per cylinder.

### **ENGINE**

Internal-combustion, reciprocating, single-camshaft, 90-degree V-8 automotive-type engine mandatory. Crankshaft centerline must intersect cylinder bore centerlines and be symmetrical. Maximum engine displacement for all roots/screw combination is limited to 529 cubic inches. Maximum engine displacement for all centrifugal and turbocharged combinations is limited to 599 cubic inches. Maximum bore center on supercharged or turbocharged big block /

Hemi head entries - 4.900 inches and 5.000 inches for Wedge head entries. Maximum bore center for small block combinations is 4.600.

For boosted entries, a positive method (flange, lip, etc.) must be attached to the intake manifold or engine block to retain both the front and rear manifold to block gaskets in the event the engine crankcase/lifter valley becomes over-pressurized. The flange/lip must extend past the surface of the gasket and be contoured to closely fit the block and manifold surfaces to prevent the gasket(s) from extruding. See General Regulations 1:2.

**ENGINE CONTAINMENT SYSTEM**

SFI 7.1 lower engine containment system required. If a flexible 7.1 system is utilized, it must be accompanied by a carbon fiber or aluminum belly pan with a minimum 2-inch vertical lip.

**ENGINE SETBACK**

Maximum of 10-percent of total vehicle wheelbase as measured from the centerline of the forward front spindle to center of front spark plug hole.

**EXHAUST**

Automotive type system designed specifically for racing is required. Exhaust gases must be directed out of the body towards the rear of vehicle and away from the driver and fuel system. All removable multi-piece exhaust collectors/stacks must be securely fastened with either an NHRA-accepted header tether, a minimum .050-inch (half-inch) stitch weld located on each primary tube or be permanently attached to the vehicle or frame with positive fasteners (i.e., exhaust hangers, support brackets, bolts/nuts, etc.) such that they require tools for removal.

**FUEL**

IHRA accepted racing gasoline and methanol permitted. The use of nitromethane, nitroparaphins and/or propylene oxide is strictly prohibited.

**FUEL SYSTEM**

Fuel cell/tank must have pressure cap and be vented to outside of body. Where fuel cells are used, they must meet SFI Spec 28.1. Fuel cells/tanks must be mounted between framerails and enclosed in a round tube frame, minimum 1.25-inch O.D. x .065-inch chromoly tubing. Extra tank(s) prohibited. Artificial cooling or heating systems prohibited. Circulating systems, not part of normal fuel-pump system, prohibited. Water injection permitted on nitrous oxide entries; only water permitted in water injection system.

**HARMONIC BALANCER**

SFI 18.1 certification required.

**INDUCTION**

Any number and type of carburetors or throttle bodies may be used. Electronic fuel injection permitted, fuel injectors must be placed in either the intake manifold runner or intake manifold plenum. Auxiliary fuel injectors/nozzles/spray bars, etc. are not permitted forward of the throttle blades/body with injection of any substance. This includes modifications to inlet bells, compressor housings, inlet pipes or any injector/nozzle/spray bar, etc. before the leading edge of the compressor inlet. This rule will not be circumvented by remote mounted throttle bodies.

**INTAKE MANIFOLD**

An IHRA-accepted burst panel is required on all vehicles.

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### **NITROUS OXIDE**

Strictly prohibited on boosted combinations. Only thermostatically controlled blanket warmers allowed. Torch or external heating prohibited; violation results in disqualification and penalties.

### **OIL SYSTEM**

All pressurized flexible oil lines must pass a minimum 750psi, 30-second test and be tagged to indicate successful testing.

### **SUPERCHARGER**

Screw-type superchargers are permitted and must carry a SFI 34.1 certification, limited to 92% maximum overdrive. Manifold burst panel meeting SFI Spec 23.1 plus restraint system meeting SFI Spec 14.2.1, including injector restraint straps are mandatory. Cast or billet cases are permitted. Hi-helix or standard helix 14-71 Roots-type supercharger permitted. Centrifugal superchargers with inducer wheel measuring a maximum of 140.99mm are permitted. Measurement will be taken at the point where the leading edge of the compressor wheel meets the inlet housing. Exducer backing plate and blade tip-to-tip dimensions may not exceed 188.99mm. Billet centrifugal superchargers are permitted with an additional weight penalty. No overdrive restriction. No rear gear restriction. All centrifugal superchargers must have a ballistic blanket installed on the compressor housing. Supercharger restraint system meeting SFI Spec 14.2, including injector restraint straps mandatory. The blower restraint straps, and fuel lines must be installed such that when the restraint straps are fully extended, no load is placed on any of the fuel lines. Intercoolers, variable multi-speed supercharger devices are prohibited. The top opening of the supercharger may not exceed 12 inches in length or 5 inches in width. The entire inlet opening must be on/in the upper surface only. The maximum length from the front of the supercharger drive pulley to the leading edge of the rotor is 15 inches. Offset drive pulleys, spacers, modified cases, or attaching methods may not be used to add to the 15-inch maximum. All manifold configurations, supercharger modifications and locations must be accepted prior to competition. The rotors must be driven from the front (both the external drive and the internal gearing. Any inlet/outlet cavity in front of the rotors is restricted to a maximum of 3.000 inches measuring from the face of the bearing plate to the front of the cavity. Supercharger openings must be fixed from the water box until the conclusion of the run.

### **THROTTLE**

Throttle control must be manually operated by driver's foot. Electronics, pneumatics, or hydraulics is permitted for starting line/staging RPM limiters only.

### **TURBOCHARGER**

Twin turbochargers limited to maximum sizing of 88mm compressor inducer and turbine/hot side of 113x125 with a .312 maximum surge slot. All turbocharger sizes will be verified by measuring the housing bore at the leading edge of the impeller wheel. Stepped compressor wheels are

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prohibited, must be continuous contour of inducer to exducer. The maximum diameter of the housing bore at the leading edge of the wheel may not exceed 2mm more than the maximum allowable turbocharger size permitted. All turbochargers must meet SFI Spec 61.1 and are required to have a ballistic compressor blanket installed on the compressor housings. All turbochargers must have cross bolts in the exhaust to prevent the turbine from discharging in the event of a failure. Cross bolts are to be 3/8" grade 5 minimum and mounted within 1" of the turbine discharge flange. Air-to-air or water-to-air intercoolers prohibited. Any turbocharger must be a commercially available production unit offered for immediate retail sale and delivery to the general public at least 21 days prior to the event. Test units, prototypes, experimental components, pre-production parts, or one-off designs are strictly prohibited. Prior approval from Technical Director required before use.

### REQUIREMENTS & SPECIFICATIONS DRIVETRAIN: 2

#### CLUTCH, FLYWHEEL, FLYWHEEL SHIELD & MOTOR PLATE

Clutch and flywheel meeting SFI 1.3, 1.4 or 1.5 certification required. SFI 29.1 flex plate required on all torque converter equipped cars (SFI 29.2 recommended). The motor plate must be attached to the chassis using at least two welded mounting points with a minimum 3/8-inch Grade 8 bolts and full nuts. At least two additional welded mounting points (using the motor plate, front block plates, etc.) are required to secure the engine to the chassis also with minimum 3/8-inch Grade 8 bolts and full nuts.

#### DRIVELINE

Driveshaft meeting SFI Spec 43.1 mandatory. Each end of driveshaft must have round 360-degree driveshaft loops within 6 inches of the U-joints. A full 360-degree driveshaft tube mandatory over the yoke, extending from the transmission tail shaft rearward, a minimum length of 12 inches. Minimum thickness of the driveshaft tube housing is .050-inch chromoly or titanium. Two-piece design accepted with minimum 6 3/8-inch Grade 8 bolts. See General Regulations 2:4. The use of "quick pins" in driveline tube or driveshaft loops is strictly prohibited.

#### FLYWHEEL SHIELD

SFI 6.3 certification required.

#### TRANSMISSION

Aftermarket planetary, clutch-less, or automatic transmission permitted. All transmissions must be equipped with an SFI Spec 4.1 transmission shield. Supercharged and turbocharged entries limited to maximum of 5 forward speeds and reverse. Aftermarket converter drive units permitted. When an automatic transmission or converter drive is utilized, an SFI Spec 6.1 or 6.3 flywheel shield and an SFI Spec 29.1 or 29.2 flexplate are mandatory. All entries utilizing a converter must be equipped with a neutral safety switch and a reverse lockout. Bolt together torque converters must be through

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bolt design using a minimum Grade 8 bolt. Transmission brake permitted on all converter-equipped entries, electric trans brake release system only. All entries using a torque converter must utilize a belly pan. Lockup converters are permitted with weight adder on some combinations. Overdrive units are prohibited on all combinations. A 1-to-1 relationship is mandatory in high gear for all transmission types. Automated, electric, or pneumatic shifting devices permitted on all transmission types; must be controlled by preset engine rpm and/or time functions only. Iterative transmission staging device permitted on converter cars. Non-Lockup combinations can only have a single wire direct to the trans brake solenoid. Any dump valves on a non-lockup transmission must be activated through the trans brake solenoid wiring only. Any additional wiring to activate dump valves on a non-lockup transmission will adhere to a weight penalty.

### **REQUIREMENTS & SPECIFICATIONS BRAKES & SUSPENSION: 3 BRAKES**

Four-wheel brakes with dual master cylinder mounted above the frame rail are required.

#### **REAR END**

Automotive type, full-floater rear end required. Titanium wheel studs prohibited. Mark Williams EV4 axle system or Strange STRL-5500SBB accepted.

#### **SUSPENSION**

Race car type suspension required. Solid suspension is prohibited. Shock absorbers required on all four wheels.

#### **WHEELIE BARS**

Permitted. Wheels must be non-metallic.

### **REQUIREMENTS & SPECIFICATIONS FRAME: 4**

#### **BALLAST**

Permitted. Any ballast mounted on, or in front of, forward crossmember is limited to 30 pounds maximum, including bracket. Maximum length of bracket is 12-inches, measured from the front of the crossmember. Maximum distance from front motor plate to front of weight bracket is 36 inches. Weight bars, pucks, etc., must use minimum .500-inch-diameter SAE Grade 8 bolts for attachment.

#### **CHASSIS**

Current SFI 25.1 certification required.

#### **DRIVER**

Must be in stock location, on the left side of the vehicle.

#### **FRAME**

Chassis must meet SFI Spec 25.1. Chassis must be recertified yearly by an SFI approved chassis inspector and have a specialized sticker affixed to the

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roll cage before participating. A panel of .032-inch aluminum, .024-inch steel or carbon fiber must be installed on the inside portion of the roll cage anywhere the driver's legs can come into contact with the roll cage. Panels must be installed in the front and lower portion of the drivers-side X-brace. Panels must attach to the interior side of the tubing or no further than the middle of the tubing, with "impact-type" padding attached to the panels. Padding must extend to be flush with X-brace. Minimum padding thickness is .025-inch. An additional panel(s) of .032-inch aluminum, .024-inch steel or carbon fiber must be installed in the roll cage roof area. The panel(s) must, at minimum, extend from the driver's side roof bar to the centerline of the vehicle. The panel(s) in the funny car cage area must be removable for proper chassis certification processes.

### **GROUND CLEARANCE**

A minimum of 3-inches of ground clearance is mandatory from the front of the vehicle to 12-inches behind the centerline of the front axle. A minimum of 2-inches of ground clearance is mandatory for the remainder of vehicle, except oil pan and exhaust headers.

### **STEERING**

SFI 42.1 steering wheel disconnect is mandatory.

### **WHEELBASE**

Minimum wheelbase of 100-inches, maximum wheelbase of 115-inches. The body styles of S-10, Ranger, and Dakota trucks are maximum of 125inches. Maximum stagger variation is 2-inches from side-to-side.

## **REQUIREMENTS & SPECIFICATIONS TIRES & WHEELS: 5**

### **TIRES**

Automotive type tires designed specifically for racing are required. Tires cannot be located outside of the body line. Manufacturer, model, and size information must be clearly designated.

### **WHEELS**

Wheels meeting SFI Spec 15.3 with bead locks or liners mandatory. Maximum width of 18-inches. Modification and/or lightening prohibited. Wheel discs or covers are prohibited.

## **REQUIREMENTS & SPECIFICATIONS INTERIOR: 6**

### **DRIVER COMPARTMENT**

Driver compartment interior must be aluminum, steel, or carbon fiber. Magnesium prohibited. Sheet metal may not extend into rear window any higher than wheel tubs. Rear wheel wells must be separate for each tire.

Maximum height of rear wheel tubs from ground, 40-inches. Transmission case must be SFI certified or utilize a transmission blanket meeting SFI 4.1. Trunk must be completely separated from driver compartment with a firewall.

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### **HEAD PADDING**

SFI 45.2 head padding required on both sides and top of roll cage.

### **SEAT**

Driver's seat must be minimum 24-inches high. Seat must be foamed with energy-absorbing material and formed to the driver's body and covered with a minimum one-layer, flame-retardant material. Seat frame must be installed as a permanent part of the chassis.

### **WINDOW NET**

SFI 27.1 window net is mandatory. Mechanism for release must have red label and in visible sight for track officials to use externally.

## **REQUIREMENTS & SPECIFICATIONS**

### **BODY: 7**

### **BODY**

Funny car or one-piece bodies are not allowed even if equipped with doors. Maximum front end overhang of 45-inches as measured from centerline of front spindles. An IHRA-accepted extension may be used to reach 45inches if the front-end overhang of the body is less than 45-inches. All bodies must originate from a production vehicle. No holes permitted in rear of body. Two hinged openings are permitted. All new cars must be accepted by the IHRA Competition Department prior to construction. All vehicles must be finished professionally, painted, lettered, numbered, and decaled.

### **BELLY PAN**

Permitted on all cars; mandatory on all entries using a torque converter and all diesel combinations. Pan must extend from frame rail to frame rail and extend from the bellhousing/engine mounting surface to the end of the transmission tail shaft. Nonflammable, oil-absorbent liner is mandatory inside of belly pan.

### **DOORS**

Required. Doors must be functional and able to be opened from both the inside and outside of the vehicle. Doors may be fabricated from carbon fiber, fiberglass, or metal. A metal deflector between the fenders and the leading edge of the doors is required.

### **FIREWALL**

Magnesium, aluminum, or composite are not allowed. All firewalls must be made of steel or titanium of .024-inch minimum thickness.

### **FLOOR**

Replacing stock floors with .024-inch steel or .032-inch aluminum is allowed. Driver's side floor pan must be .024-inch steel and must be welded in place extending from firewall to back of the driver's seat. Carbon fiber or aluminum may be utilized in the passengers' portion of the flooring in the driver's compartment.

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### **HOOD SCOOP**

Allowed. One opening only. Must be finished and painted to follow the body's paint scheme.

### **NOSTALGIA BODY STYLE**

The following body styles may deduct 25 pounds from their minimum weight:

1937-1938 Chevy, 1937-1942 Willys, 1949-1950 Mercury, 1953-1959

Studebaker, 1958 Plymouth Fury, 1953-1967 Corvette, 1955-1957

Chevrolet, 1955-1957 Buick, 1970-1971 Plymouth Barracuda, 1968-1972

Chevelle and Oldsmobile. Full size truck bodies (Silverado, F-Series, Ram, etc.) are also eligible for the body deduction.

### **PARACHUTES**

Dual parachutes are required. Separate shroud-line mounting points with 0.500inch sleeved grade-8 bolts required. Safety pins must be red flagged and must be removed prior to burnout.

### **WINDSHIELD, WINDOWS**

Mandatory. May be replaced with 1/8-inch-thick Lexan, plexiglass, or other shatterproof material. An opening with a 4-inch diameter minimum is required on side windows adjacent to the driver.

### **WING, SPOILERS**

Any style rear wing and/or spoiler is permitted. Adjustments during the run are prohibited.

## **REQUIREMENTS & SPECIFICATIONS ELECTRICAL: 8**

### **BATTERY**

Maximum of two batteries allowed. All batteries must be securely fastened.

### **IGNITION**

Maximum one magneto or distributor. Maximum one spark plug per cylinder. Electronic starting line RPM limiters (two-steps) are permitted.

### **MASTER CUT-OFF**

Mandatory. An external master electrical shut-off is required, must be clearly labeled, "PUSH OFF."

### **TAILLIGHT**

Functional rear taillight is required. Taillight must be permanently mounted and controlled from the driver's compartment.

## **REQUIREMENTS & SPECIFICATIONS**

### **SUPPORT GROUP: 9**

### **COMPUTER**

Permitted.

### **DELAY BOXES**

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Permitted.

### **DATA RECORDERS**

Permitted.

### **FIRE SUPPRESSION SYSTEM**

SFI 17.1 system required. System must contain a minimum of 20-pounds of fluid or gas fire suppression agent. One nozzle required inside driver's compartment must be directed at driver's feet. Two or more nozzles must be directed at front of engine and fuel cell. All fire suppression must be released with a single actuation (i.e., single handle, button, or lever). Fire safety pins must be removed before proceeding to burnout area.

### **TOW VEHICLES**

Permitted. Tow/push bars must be labeled with reflective tape and/or bright color or striping for safety precautions. A valid driver's license is required to operate any type of tow vehicle. All passengers must be seated inside of the vehicle with all doors closed. Riding in open hatchback, trunk or cargo area is not allowed. ATVs are allowed with a maximum of one passenger who must always be seated. Golf carts are allowed with a maximum of four passengers who must always be seated. Posted pit speeds must always be obeyed. If pit speed is not posted, maximum pit speed will be 10 miles per hour.

## **REQUIREMENTS & SPECIFICATIONS DRIVER: 10**

### **CREDENTIALS**

Current IHRA Pro Mod License is required.

### **DRIVER RESTRAINT SYSTEM**

Driver restraint system meeting SFI Spec 16.1 certification required. Beginning 1/1/27, 7-point system required. Restraint system must be updated at two-year intervals from date of manufacture.

### **HEAD AND NECK RESTRAINT**

SFI 38.1 required. An aluminum skid plate located above driver's head is recommended.

### **HELMET**

For all cars, a full-face Snell SA2015, or SA2020 helmet and shield mandatory (goggles prohibited). Eject Helmet Removal System (Part # SDR 890-01-30) mandatory and must be installed per manufacturer instructions. A Stand 21 Lid Lifter head sock meeting SFI 3.3 may be used in lieu of the Eject Helmet Removal System.

### **HEAD AND NECK RESTRAINT DEVICE/SYSTEM**

A head and neck restraint device/system meeting SFI Spec 38.1 is mandatory.

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### **PROTECTIVE CLOTHING**

A driver's suit meeting SFI 3.2A/20, gloves meeting SFI 3.3A/20, shoes meeting SFI 3.3/20 and a head sock meeting SFI 3.3 mandatory. A head sock is not required when a helmet manufactured with a skirt meeting SFI 3.3 is used.

### **RF SHUTDOWN RECEIVER**

Properly functioning Electrimotion shut-off device (Part # SB001 and RF001) recommended. IHRA will utilize Electrimotion safety shut-off device at all IHRA national events.

### **ROLL BAR PADDING**

SFI 45.2 required on top and sides of funny car roll cage.