



## IHRA 28x10.5 Bratz

28x10.5 Bratz is a category where boosted and nitrous applications are permitted, meeting the specific rules of the category as listed below. Bratz is contested on a .400 Pro Tree, no time shown, and is randomly paired first round 32-car field, unless 9 or less total entries, which reverts to an 8-car field.

### DESIGNATION

Bratz followed by car number. Number must be at least four inches high. Competition numbers must be located on both side windows, windshield, and rear windows. 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 a 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***

There are no minimum weights in this category

### REQUIREMENTS & SPECIFICATIONS ENGINE: 1

#### ENGINE

Any internal combustion engine allowed with any modifications. See General Regulations 1:2.

#### ENGINE CONTAINMENT SYSTEM

Engine containment diaper mandatory. SFI 7.1 lower engine containment system recommended. A carbon fiber or aluminum belly pan with a minimum 2-inch vertical lip recommended.

### **EXHAUST**

Automotive type system designed specifically for racing required. Exhaust gasses 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 IHRA-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**

No components may be mounted on firewall or flywheel/flexplate area. Rear-mounted tanks/cells must be vented outside body and have a firewall between it and the driver. Front-mounted systems must be between framrails and enclosed in a round-tube frame with minimum 1.25" OD x .065" chromoly or Docol R8, or .118" mild steel.

### **HARMONIC BALANCER**

SFI 18.1 certification required where applicable.

### **INTAKE MANIFOLD**

An IHRA-accepted SFI 23.1 burst panel is encouraged on all vehicles.

### **POWER ADDERS**

Dual power adders prohibited.

### **NITROUS OXIDE**

Bottles in driver compartment require relief valve and external vent. Only thermostatically controlled blanket warmers allowed. Torch or external heating prohibited; violation results in disqualification and penalties.

### **SUPERCHARGER**

Screw-type superchargers are permitted and must carry a SFI 34.1 certification. 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. All centrifugal superchargers must have a ballistic blanket installed on the compressor housing. 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.

### **TURBOCHARGER**

Twins allowed. All turbochargers are required to have a ballistic compressor blanket installed on the compressor housings. All

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turbochargers encouraged to 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.

### **VENT TUBES/BREATHERS**

Mandatory on all boosted engines. Two 1" diameter, positive locking breathers required.

## **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).

### **DRIVELINE**

Driveshaft meeting SFI Spec 43.1 recommended. Each end of driveshaft must have round 360-degree driveshaft loops within 6 inches of the U-joints. 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. 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 must be equipped with a neutral safety switch and a reverse lockout. Bolt together torque converters must be through-bolt design using a minimum Grade 8 bolt. Transmission brake permitted on all converter-equipped entries, electric trans brake release system only. Lockup converters are permitted. High-pressure vent line (minimum 1/8-inch pipe connection) must route to an overflow tank (minimum 1-pint capacity).

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

### **BRAKES**

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

### **REAR END**

Automotive axles and axle-retention devices mandatory. Welded spider gears prohibited. Must use a minimum 5/8" diameter wheel stud. Titanium wheel studs prohibited.

### SUSPENSION

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

### WHEELIE BARS

Not Permitted.

## REQUIREMENTS & SPECIFICATIONS FRAME: 4

### BALLAST

Permitted up to 250 lbs. total. Must be properly mounted via industry standards. No loose sandbags or lead shot bags. All ballast must be mounted within the confines of the car's bodywork. Any loose ballast found will be grounds for immediate disqualification from the race.

### CHASSIS

Current SFI 25.5, 25.1, 25.2, or 25.3 certification required.

### DRIVER

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

### 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 (if used).

### WHEELBASE

+/- 2" from OEM allowed.

## 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. Only 28x10.5 (non-W) slicks are allowed on rear. Hoosier 18150, 18154, and 18155, or M/T 3055, 3055s, 30559, 30558, 30554 only. NO RADIALS. Any new tire models in the future need to be readily available and approved by IHRA in writing before being used in competition.

### WHEELS

Competition series bead lock rear wheels mandatory. Inner liners permitted. Heavy-duty centers recommended. Wheels marketed as street/strip

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prohibited. Modification and/or lightening prohibited. Wheel discs or covers are prohibited.

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

#### **WINDOW NET**

SFI 27.1 window net is mandatory.

### **REQUIREMENTS & SPECIFICATIONS**

#### **BODY: 7**

#### **BODY**

Steel roof and quarter, stock appearing bodies with factory dimensions only. Corvettes and other composite body styles must have OEM quarters. Vehicles that came with OEM composite roofs may have aftermarket replacements. All body panels must retain factory body lines. Cowl hoods and hood scoops permitted. Must have all body panels installed - including, but not limited to - doors, hood, fenders, front and rear bumper, trunk lid. Maximum front end overhang of 45-inches as measured from centerline of front spindles. An IHRA-accepted extension may be used to reach 45 inches if the front-end overhang of the body is less than 45-inches.

#### **BELLY PAN**

Permitted on all cars.

#### **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.

#### **FIREWALL**

Magnesium, aluminum, or composite 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.

#### **HOOD SCOOP**

Allowed. One opening only.

#### **PARACHUTES**

Required. Dual parachutes required on cars over 200 mph. Separate shroud-line mounting points with 0.500inch sleeved grade-8 bolts

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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.

### **WING, SPOILERS**

No element-style wings; front or rear. Only flat drag-style wings allowed. Adjustments during the run are prohibited.

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

### **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**

### **FIRE SUPPRESSION SYSTEM**

SFI 17.1 system required. Gas vehicles- system must contain a minimum of 5-pounds of fluid or gas fire suppression agent. Methanol vehicles must have a mandatory minimum 10-pound system. One nozzle required inside driver's compartment must be directed at driver's feet. One nozzle into engine compartment (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.

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

### **CREDENTIALS**

Current IHRA Small Tire license is required.

### **DRIVER RESTRAINT SYSTEM**

Driver restraint system meeting SFI Spec 16.1 certification required (7-point system recommended). Restraint system must be updated at two-year intervals from date of manufacture.

### **HEAD AND NECK RESTRAINT**

SFI 38.1 required.

### **HELMET**

For all cars, a full-face Snell SA2015, SA2020, or SA2025 helmet and shield mandatory (goggles prohibited).

**PROTECTIVE CLOTHING**

A driver's suit meeting SFI 3.2A/15, gloves meeting SFI 3.3A/5, shoes meeting SFI 3.3/5 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.

**ROLL BAR PADDING**

SFI 45.2 required anywhere within arm's reach of the driver.