



**2011 NHRA  
Hot Rod Heritage  
Racing Series Rules  
Supplement**

## 2011 NHRA HOT ROD HERITAGE RACING SERIES RULES SUPPLEMENT

**Drag racing is a dangerous sport. There is no such thing as a guaranteed safe drag race. Drag racing always carries with it the risk of serious injury or death in any number of ways. This risk will always exist no matter how much everyone connected with drag racing tries to make our sport safer. Although NHRA works to promote and enhance the safety of the sport, there are no guarantees that such safety measures will guarantee or ensure safety. The participant always has the responsibility for the participant's own safety, and by participating in drag racing, the participant accepts all risks of injury, whether due to negligence, vehicle failure, or otherwise. If at any time a participant does not accept these risks, the participant agrees not to participate in drag racing.**

NHRA has developed this Hot Rod Heritage Racing Series Rules Supplement program, which incorporates technical and competition guidelines, to accommodate those categories in an accepted Alternate Sanctioning Organization and not clearly defined by the NHRA Rulebook.

The rules and regulations set forth in this Supplement apply specifically to such vehicles and drivers and to performance and conduct at any NHRA event or member track.

These rules and regulations are excerpts from or supplements to the NHRA Rulebook, and participants and track officials should consult the current NHRA Rulebook for additional applicable information.

Categories or other exhibition nostalgia classes (for example, Nostalgia Super Stock) that are not in this Hot Rod Heritage Racing Series Rules Supplement will be governed by Section 4A (Super Pro, Pro, Sportsman) and Section 4B (Advanced E.T.) of the NHRA Rulebook.

The NHRA Hot Rod Heritage Racing Series Rules Supplement provides guidelines and minimum standards for the construction and operation of vehicles used in NHRA Championship Drag Racing and at member-track events. Additional safety equipment or safety-enhancing equipment is always permitted, and the levels of safety equipment stated in this Rulebook are minimum prescribed levels for a particular type of competition and do not prohibit the individual racer from using additional safety equipment. Participants are encouraged to investigate the utility of additional safety devices for their type of competition. In disputed cases, whether an item of equipment is safety-enhancing or performance-enhancing will be determined by NHRA in NHRA's sole and absolute discretion.

Regarding performance equipment, it is the general rule that unless optional performance equipment or performance-related modification is specifically permitted by this Supplement, it is prohibited. All model, engine, or equipment changes or modifications not specifically addressed in this Supplement must be submitted in writing to NHRA for consideration prior to competition. Approval will be granted or denied in NHRA's sole and absolute discretion. The applicant will be notified of approval or rejection in writing from NHRA headquarters in Glendora, Calif.

Unauthorized cars, parts, and/or equipment will not be considered approved by reason of having passed through technical inspection at any time or any number of times. Moreover, having passed through technical inspection at any time or any number of times is not a defense to a violation found on further inspection.

Prime responsibility for the safe condition and operation of a vehicle in competition rests with the vehicle owner, driver, and crewmembers. The track operator's main concern is to provide a place to conduct events. NHRA produces guidelines based on experience and circulates information to help perpetuate the sport. Close observance of the standards set forth in this Supplement is required for all participants, including owners, drivers, and crewmembers. However, drag racing is dangerous. Therefore, no express or implied warranty of safety is created from publication of or compliance with NHRA rules, nor does compliance with NHRA rules guarantee against injury or death to participants, spectators or others.

Additional safety equipment or safety-enhancing equipment is always permitted and the levels of safety equipment stated in this Supplement are minimum prescribed levels for a particular type of competition and do not prohibit the individual racer from using additional safety equipment. Participants are encouraged to investigate the utility of additional safety devices for your type of competition. In disputed cases, whether an item of equipment is safety-enhancing or performance-enhancing will be determined by NHRA in NHRA's sole and absolute discretion.

On the other hand, as to performance equipment, it is the general rule that unless optional performance equipment or performance-related modification is specifically permitted by this Supplement, it is prohibited. All model, engine, or equipment changes or modifications not specifically addressed in this Supplement must be submitted in writing to NHRA for consideration prior to competition. Approval will be granted or denied in NHRA's sole and absolute discretion. The applicant will be notified of approval or rejection in writing from NHRA headquarters in Glendora, Calif.

Throughout this Supplement, a number of references are made for particular products to meet certain specifications (i.e., SFI Specs, Snell, DOT, etc.). It is important to realize that these products are manufactured to meet certain specifications, and upon completion, the manufacturer labels the product as meeting that spec. Therefore, except as outlined under SFI requirements, any change to the product voids that certification.

Under no circumstances may any certified product be modified, altered, or in any way vary from the "as manufactured" condition. Such a practice is in violation of the SFI, Snell, DOT, etc. program, voids such certification and therefore will not be accepted by NHRA.

**NOTICE:** It is the responsibility of the participant, not NHRA or any track, to ensure that all safety equipment is approved and is correctly installed, worn, maintained and used.

Remember, it is your responsibility to follow the standards in this Supplement that pertain to your vehicle.

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## **Section 1**

# **Hot Rod Eliminator**

### **DESIGNATION**

H/R, preceded by number.

Reserved for pre-1980 left-hand-steer full-bodied vehicles. Front-engine dragster, altereds, or any other open-cockpit car prohibited.

Competition structure will be conducted in an e.t. dial-your-own format, with dial-in limited to 13.99 seconds maximum. Class uses a five-tenths full Tree start.

### **REQUIREMENTS & SPECIFICATIONS**

#### **ENGINE: 1**

### **ENGINE**

One internal-combustion automotive-type engine permitted. Harmonic balancer meeting SFI Spec 18.1 mandatory in any car running 10.99 (6.99\*) or quicker. See General Regulations 1:1.

### **EXHAUST SYSTEM**

Competition exhaust permitted. Exhaust must be directed out of car to rear, away from driver and fuel tank. See General Regulations 1:3.

### **FUEL**

Racing gasoline, gasoline, alcohol, gasohol, diesel, ethanol, natural gas, and propane permitted. Nitromethane prohibited.

### **FUEL SYSTEM**

All fuel-tank filler necks located inside trunk must have filler neck vented to outside of body. Vented caps prohibited. All batteries, fuel lines, fuel pumps, or filler necks located inside trunk require complete bulkhead of at least .024-inch steel or .032-inch aluminum to isolate driver compartment from trunk. Fuel lines must be located outside driver compartment. Fuel tanks must be within confines of the body. No pressurized fuel tanks allowed. See General Regulations 1:5.

### **LIQUID OVERFLOW**

Catch can mandatory for coolant overflow; one-pint (16-ounce) minimum capacity. See General Regulations 1:7.

### **OIL RETENTION DEVICE**

All vehicles running 7.49 or quicker must utilize an SFI Spec 7.1, 7.2 or NHRA-accepted lower engine oil retention device; may use a belly pan in lieu of a device attached to the engine. The belly pan must extend from framerail to framerail and extend forward of the harmonic balancer and rearward to rear engine plate and must incorporate a minimum 2-inch-high lip on all sides. A nonflammable, oil-absorbent liner mandatory inside of retention device. See General Regulations 1:8.

### **NITROUS OXIDE**

Nitrous oxide prohibited.

### **THROTTLE**

Positive throttle return required. Each car must have a foot throttle incorporating a positive-acting return spring attached directly to the carburetor/injector throttle arm. Throttle control must be manually operated by driver's foot, incorporating a positive-action return system. See General Regulations 1:12.

## **SUPERCHARGER**

Permitted on gasoline-, racing-gasoline-, and alcohol-burning cars. Supercharger restraint system meeting SFI Spec 14.1 mandatory on supercharger when alcohol is used as fuel. Manifold burst panel mandatory. Supercharger restraint straps must be covered with a fire-resistant material. 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. Supercharger belt guard that protects all fuel, oil, and water lines required. No composite materials in injector hat and/or scoop allowed. Composite materials include but are not limited to carbon fiber, Kevlar, and weave-graphite fiber. Hat/scoop must be nostalgic in appearance. Internal modifications permitted. Scoops limited to 12.5 inches above throttle body. Air intake limited to 65 square inches. See General Regulations 1:10.

## **VALVE COVERS**

Cast or fabricated metal valve covers, using all attachment bolt holes, mandatory on supercharged, methanol-burning cars.

## **DRIVETRAIN: 2**

### **CLUTCH, FLYWHEEL, FLYWHEEL SHIELD**

Flywheel and clutch meeting SFI Spec 1.1 or 1.2 (two-disc maximum) mandatory on any car running 11.49 (7.35\*) or quicker. Flywheel shield meeting SFI Spec 6.1, 6.2, 6.3, or 9.1 mandatory on all cars running 11.49 (7.35\*) or quicker. See General Regulations 2:3, 2:5, 2:6, 2:10.

### **DRIVELINE**

Driveshaft loop required on all cars utilizing slicks, except vehicles running 11.49 (7.35\*) seconds or slower equipped with street tires. In all cars where the driveline passes any part of the driver's body, the driveshaft must be completely enclosed in a minimum 1/8-inch-thick steel plate securely mounted to frame structure, bellhousing, and/or rear-end center section. See General Regulations 2:4.

### **REAR END**

Aftermarket axles and axle-retention device mandatory on any car running 10.99 (6.99\*) or quicker or any car with locked differential. See General Regulations 2:11.

### **TRANSMISSION, AFTERMARKET PLANETARY**

Transmission shield meeting SFI Spec 4.1 mandatory on any supercharged vehicle or any vehicle burning methanol, running 9.99 seconds or quicker, and equipped with aftermarket planetary transmission. See General Regulations 2:12, 2:13.

### **TRANSMISSION, AUTOMATIC**

Spring-loaded, positive reverse lockout device and functional neutral safety switch mandatory. Transmission shield meeting SFI Spec 4.1 mandatory on any car running 10.99 (6.99\*) or quicker or any car exceeding 135 mph. Automatic transmission flexplate meeting SFI Spec 29.1 and flexplate shield meeting SFI Spec 30.1 mandatory on cars running 9.99 (6.39\*) or quicker or any car exceeding 135 mph. See General Regulations 2:12, 2:14.

## **BRAKES & SUSPENSION: 3**

### **BRAKES**

Four-wheel hydraulic brakes mandatory on any bodied car running 7.99 (4.99\*) or quicker. Minimum two rear-wheel (one caliper per wheel) hydraulic brakes mandatory on any car running slower than 8.00 (5.00\*) seconds. See General Regulations 3:1.

## **B ♦ Hot Rod Eliminator**

### **STEERING**

See General Regulations 3:3, 4:1.

### **SUSPENSION, STOCK-BODIED CARS**

Full automotive-type suspension mandatory. Minimum one operating hydraulic shock absorber per wheel. Lightening of stock components prohibited. Rigid-mounted suspensions prohibited. See General Regulations 3:2, 3:4, 3:5.

### **WHEELIE BARS**

Permitted. Wheels must be nonmetallic. See General Regulations 3:6.

## **FRAME: 4**

### **BALLAST**

Permitted. See General Regulations 4:2.

### **GROUND CLEARANCE**

Minimum 3 inches from front of car to 12 inches behind centerline of front axle, 2 inches for remainder of car, except oil pan and headers. See General Regulations 4:5.

### **PARACHUTE**

Mandatory on any car that runs 150 mph or faster. See General Regulations 4:8.

### **ROLL BAR**

Roll bar mandatory in all cars running 11.00 (7.00\*) to 11.49 (7.35\*), in convertibles running 11.00 (7.00\*) to 13.49 (8.25\*). Permitted in all cars. See General Regulations 4:10, 10:6.

### **ROLL CAGE**

Roll cage mandatory in cars running 10.99 (6.99\*) or quicker or any car exceeding 135 mph. In full-bodied cars with unaltered firewall, floor, and body (from firewall rearward, wheel tubs permitted), running between 10.00 (6.40\*) and 10.99 (6.99\*), roll bar permitted in place of roll cage. In convertibles running 10.99 (6.99\*) or quicker or exceeding 135 mph, roll cage mandatory. Cars running between 7.50 (4.50\*) and 9.99 (6.39\*) must have chassis inspected every three years by NHRA and have a serialized sticker affixed to cage before participation. Plating of chassis prohibited for all cars manufactured after Jan. 1, 2003. Vehicles running 8.49 to 7.50 (5.40 to 4.50\*) and/or exceeding 180 mph must meet appropriate SFI Spec for body used. All others must conform to specs for body style used, as listed in General Regulations 4:11, 10:6.

### **ROLL-CAGE PADDING**

Beginning June 1, 2011, roll-cage padding meeting SFI Spec 45.1 mandatory on any vehicle running 9.99 (\*6.39) and quicker. Padding must be used anywhere driver's helmet may come in contact with roll-cage components. See General Regulations 4:11, 10:6.

### **WHEELBASE**

Minimum 90 inches, unless car has original engine. Maximum wheelbase variation from left to right: 1 inch.

## **TIRES & WHEELS: 5**

### **TIRES**

Racing slicks permitted.

### **WHEELS**

Must be automotive-type wheels suitable for street use. Minimum wheel size: 13 inches (unless originally equipped with smaller wheels and vehicle is equipped with

original engine). The thread engagement on all wheel studs to the lug nut, or lug bolt to wheel hubs, must be equivalent to or greater than the diameter of the stud. Length of the stud/bolt does not determine permissibility; length of the engagement between the stud and lug determines permissibility. Snap-on hubcaps prohibited. See General Regulations 5:2.

## **INTERIOR: 6**

### **SEATS**

Properly braced, framed, and supported seats constructed of aluminum, fiberglass, carbon fiber, or double-layer poly (automotive accessory seats) permitted. See General Regulations 6:2.

### **UPHOLSTERY**

Optional. See General Regulations 6:2.

### **WINDOW NET**

Mandatory in any full-bodied car required by the rules to have a roll cage. See General Regulations 6:3.

## **BODY: 7**

### **BODY**

Full-bodied vehicles: Must have full top and windshield. All full-bodied cars must have two driver exits. Four stock-production fenders mandatory, fiberglass duplicates permitted. Fenders may be trimmed for tire clearance; altered fenders must have edges re-rolled or beaded.

### **FIREWALL**

Mandatory. See General Regulations 6:1, 7:4.

### **FLOOR**

Mandatory. See General Regulations 6:1, 7:5.

### **HOOD**

Optional. Carburetors must be covered by flash shield or scoop. Hood scoop permitted. See General Regulations 4:1, 7:6.

### **WINDSHIELD, WINDOWS**

Stock-bodied vehicles: mandatory; must be in good condition and free from cracks. May be replaced with shatterproof material, 1/8-inch-minimum thickness. OEM windshield may not be cut for scoops, carb, etc. Windshield/window tint must meet the applicable state requirements. Windows must be closed during races, need not be operable. Decals permitted on rear quarter and rear window only. See General Regulations 7:8.

## **ELECTRICAL: 8**

### **BATTERIES**

Batteries must be securely mounted; may not be located in driver compartment. Relocated battery(s) must be fastened to frame or frame structure with a minimum of two 3/8-inch-diameter bolts. See General Regulations 8:1.

### **DELAY BOX/DEVICES**

Prohibited. Electronic devices include but are not limited to throttle stops, delay boxes, cross-over boxes, rpm or timer shifters, and rpm or pressure-activated switches. See General Regulations 8:2.

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### **IGNITION**

Timed ignition-interruption devices (stutter boxes) prohibited. Starting-line and/or "high-side" rev limiters permitted. Two-steps, rev limiters, or any other rpm-limiting devices, legal unto themselves but altered or installed so as to function as a downtrack rpm controller, prohibited.

### **INSTRUMENTS**

One tachometer allowed. No wiring (other than the two-step/launch-control wire that splices into the transbrake or line-loc control wire) shall be connected.

### **MASTER CUTOFF**

Mandatory on any car with a battery running 9.99 (6.39\*) or quicker, any car exceeding 135 mph, or any car where the battery is relocated into the trunk area. See General Regulations 8:4.

### **TAILLIGHTS**

One functional taillight mandatory. Flashing, blinking, or strobe lights prohibited. See General Regulations 8:6.

## **SUPPORT GROUP: 9**

### **COMPUTER**

Prohibited. See General Regulations 9:1.

### **DATA RECORDER**

Data recorders permitted. See General Regulations 9:2.

### **FIRE-EXTINGUISHER SYSTEM**

Permitted; must be securely mounted. See General Regulations 9:3.

### **PUSH BAR**

Push bar must be designed to prevent push car from riding up on rear wheel of open-wheeled race cars. See General Regulations 9:8.

### **TOW VEHICLES**

Prohibited.

### **WARM-UPS**

See General Regulations 9:4, 9:12.

## **DRIVER: 10**

### **CREDENTIALS**

Valid NHRA competition license mandatory for cars running 9.99 (6.39\*) or quicker. Valid state- or government-issued driver's license beyond a learner's-permit level mandatory for cars running 10.00 (6.40\*) or slower. See General Regulations 10:4.

### **DRIVER RESTRAINT SYSTEM**

Seat belt mandatory in all cars. Three-inch driver restraint system meeting SFI Spec 16.1 mandatory in any car running 11.49 (7.35\*) or quicker, in convertibles running 13.49 (8.25\*) or quicker. SFI 16.1 restraint system, when required, includes crotch strap and must be updated at two-year intervals from date of manufacture. See General Regulations 10:5, 10:11.

### **HEAD PROTECTOR**

Mandatory on any car with a roll bar or roll cage. See General Regulations 10:6.

## **HELMET**

For all 10.00 to 13.99 closed-bodied cars, either an open-face or a full-face Snell M2000, M2005, M2010, K2005, SA2000, SA2005, SA2010, SFI 31.1A, 31.1/2005, 31.2A, 41.1A, 41.1/2005, or 41.2A helmet with or without a shield is mandatory.

For all 9.99 and quicker closed-bodied cars, a full-face Snell M2000, M2005, M2010, K2005, SA2000, SA2005, SA2010, SFI 31.2A or 41.2A helmet mandatory; shield permitted (goggles prohibited).

For all 9.99 and quicker supercharged cars, a full-face Snell SA2000, SA2005, SA2010, or SFI 31.2A helmet mandatory; shield permitted (goggles prohibited).

## **NECK COLLAR**

Neck collar meeting SFI Spec 3.3 mandatory in all cars running 9.99 (6.39\*) or quicker or cars exceeding 135 mph. A head and neck restraint device/system may be used in lieu of a neck collar. See General Regulations 10:8.

## **PROTECTIVE CLOTHING**

Shorts, bare legs, tank tops, or bare torsos prohibited when driving in competition. All drivers are required to wear full-length pants, shoes, and socks. Nylon or nylon-type clothing and open-toe shoes prohibited. See General Regulations 10:10.

### **10.00 (6.40\*) TO 13.99 (8.59\*); ALL E.T. NON-OEM SUPERCHARGED WITH AN OEM OR .024-INCH STEEL FIREWALL:**

Jacket meeting SFI Spec 3.2A/1 mandatory.

### **10.00 (6.40\*) TO 13.99 (8.59\*); ALL E.T. SUPERCHARGED WITHOUT A FULL OEM OR .024-INCH STEEL FIREWALL:**

Jacket meeting SFI Spec 3.2A/5 and gloves meeting SFI Spec 3.3/1 mandatory.

### **9.99 (6.39\*) TO 7.50 (4.50\*); CLOSED-BODIED WITHOUT AN OEM OR FULL .024-INCH STEEL FIREWALL WITH SUPERCHARGER:**

Jacket and pants meeting SFI Spec 3.2A/15, and gloves and shoes or boots meeting SFI Spec 3.3/5 mandatory.

### **10.00 (6.40\*) TO 11.49 (7.35\*); ALL E.T. NATURALLY ASPIRATED, OEM SUPERCHARGED, WITH A FULL OEM OR .024-INCH STEEL FIREWALL:**

Jacket meeting SFI Spec 3.2A/1 mandatory.

### **9.99 (6.39\*) TO 7.50 (4.50\*) OR ANY VEHICLE EXCEEDING 135 MPH:**

Jacket and pants meeting SFI Spec 3.2A/5 and gloves meeting SFI Spec 3.3/1 mandatory, except as noted above.

**ANY VEHICLE WITH AN AUTOMATIC TRANSMISSION IN DRIVER COMPARTMENT (NO FLOOR COVERING TRANSMISSION):** Jacket and pants or suit meeting SFI Spec 3.2A/15, gloves meeting SFI Spec 3.3/5, and boots or shoes meeting SFI Spec 3.3/5 mandatory.

**9.99 AND FASTER, ANY VEHICLE, SUPERCHARGED WITH ALCOHOL:** Suit meeting SFI Spec 3.2A/15, and gloves and boots meeting SFI Spec 3.3/5 mandatory.

\* = eighth-mile equivalent

## Section 2

# Gas Eliminator

### DESIGNATION

A/Gas, B/Gas, C/Gas, D/Gas, preceded by number.

### CLASSES

A/Gas: 7.60 standard

B/Gas: 8.60 standard

C/Gas: 9.60 standard

D/Gas: 10.60 standard

Competition is based on using a four-tenths heads-up Pro Tree.

Reserved for pre-1973 coupe or sedan only that must readily resemble intended body style.

## REQUIREMENTS & SPECIFICATIONS

### ENGINE: 1

#### ENGINE

One internal-combustion automotive-type engine permitted. Harmonic balancer meeting SFI Spec 18.1 mandatory. See General Regulations 1:1.

#### EXHAUST SYSTEM

Competition exhaust permitted. Exhaust must be directed out of car to rear, away from driver and fuel tank. See General Regulations 1:3.

#### FUEL

Racing gasoline, gasoline, alcohol, gasohol, diesel, ethanol, natural gas, and propane permitted. Nitromethane prohibited.

#### FUEL SYSTEM

All fuel-tank filler necks located inside trunk must have filler neck vented to outside of body. Vented caps prohibited. All batteries, fuel lines, fuel pumps, or filler necks located inside trunk require complete bulkhead of at least .024-inch steel or .032-inch aluminum to isolate driver compartment from trunk. Fuel lines must be located outside driver compartment. Fuel tanks must be within confines of the body. No pressurized fuel tanks allowed. See General Regulations 1:5.

#### LIQUID OVERFLOW

Catch can mandatory for coolant overflow; one-pint (16-ounce) minimum capacity. See General Regulations 1:7.

#### OIL RETENTION DEVICE

A properly fitting, SFI Spec 7.1, 7.2, or NHRA-accepted lower engine oil retention device is mandatory, may use a belly pan in lieu of a device attached to the engine. The belly pan must extend from framerail to framerail and extend forward of the harmonic balancer and rearward to rear engine plate and must incorporate a minimum 2-inch-high lip on all sides. A nonflammable, oil-absorbent liner mandatory inside of retention device. See General Regulations 1:8.

#### NITROUS OXIDE

Nitrous oxide prohibited.

## **THROTTLE**

Positive throttle return required. Each car must have a foot throttle incorporating a positive-acting return spring attached directly to the carburetor/injector throttle arm. Throttle control must be manually operated by driver's foot, incorporating a positive-action return system. See General Regulations 1:12.

## **SUPERCHARGER, TURBOCHARGER**

Permitted on gasoline-, racing-gasoline-, and alcohol-burning cars. Rotors must be driven from the front; both external drive and internal gearing. Supercharger restraint system meeting SFI Spec 14.1 mandatory on supercharger when alcohol is used as fuel. Manifold burst panel mandatory. Supercharger restraint straps must be covered with a fire-resistant material. 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.

Supercharger belt guard that protects all fuel, oil, and water lines required. No composite materials in injector hat and/or scoop allowed. Composite materials include but are not limited to carbon fiber, Kevlar, and weave-graphite fiber. Hat/scoop must be nostalgic in appearance. Internal modifications permitted. Scoops limited to 12.5 inches above throttle body. Air intake limited to 65 square inches. See General Regulations 1:10.

## **VALVE COVERS**

Cast or fabricated metal valve covers, using all attachment bolt holes, mandatory on supercharged, methanol-burning cars.

## **DRIVETRAIN: 2**

### **CLUTCH, FLYWHEEL, FLYWHEEL SHIELD**

Flywheel and clutch meeting SFI Spec 1.1 or 1.2 (two-disc maximum) mandatory on any car running 11.49 (7.35\*) or quicker. Flywheel shield meeting SFI Spec 6.1, 6.2, 6.3, or 9.1 mandatory on all cars running 11.49 (7.35\*) or quicker. See General Regulations 2:3, 2:5, 2:6, 2:10.

### **DRIVELINE**

Driveline loop mandatory. See General Regulations 2:4.

### **REAR END**

Aftermarket axles and axle-retention device mandatory on any car running 10.99 (6.99\*) or quicker or any car with locked differential. See General Regulations 2:11.

### **TRANSMISSION, AFTERMARKET PLANETARY**

Transmission shield meeting SFI Spec 4.1 mandatory on any supercharged vehicle or any vehicle burning methanol, running 9.99 seconds or quicker, and equipped with aftermarket planetary transmission. See General Regulations 2:12, 2:13.

### **TRANSMISSION, AUTOMATIC**

Spring-loaded, positive reverse lockout device and functional neutral safety switch mandatory. Transmission shield meeting SFI Spec 4.1 mandatory. Automatic transmission flexplate meeting SFI Spec 29.1 and flexplate shield meeting SFI Spec 30.1 mandatory on cars running 9.99 (6.39\*) or quicker or any car exceeding 135 mph. See General Regulations 2:12, 2:14.

## **BRAKES & SUSPENSION: 3**

### **BRAKES**

Four-wheel hydraulic brakes mandatory on any bodied car running 7.99 (4.99\*) or quicker. Minimum two rear-wheel (one caliper per wheel) hydraulic brakes mandatory on any car running slower than 8.00 (5.00\*) seconds. See General Regulations 3:1.

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### **STEERING**

See General Regulations 3:3, 4:1.

### **SUSPENSION, STOCK-BODIED CARS**

Full automotive-type suspension mandatory. Minimum one operating hydraulic shock absorber per wheel. Lightening of stock components prohibited. Rigid-mounted suspensions prohibited. See General Regulations 3:2, 3:4, 3:5.

### **WHEELIE BARS**

Permitted. Wheels must be nonmetallic. See General Regulations 3:6.

## **FRAME: 4**

### **BALLAST**

Permitted. See General Regulations 4:2.

### **GROUND CLEARANCE**

Minimum 3 inches from front of car to 12 inches behind centerline of front axle, 2 inches for remainder of car, except oil pan and headers. See General Regulations 4:5.

### **PARACHUTE**

Mandatory on any car that runs 150 mph or faster. See General Regulations 4:8.

### **ROLL BAR**

Roll bar mandatory in all cars running 11.00 (7.00\*) to 11.49 (7.35\*), in convertibles running 11.00 (7.00\*) to 13.49 (8.25\*). Permitted in all cars. See General Regulations 4:10, 10:6.

### **ROLL CAGE**

Roll cage mandatory if vehicle has altered floor or if vehicle runs 135 mph or faster. In D/Gas, if vehicle is equipped with unaltered firewall, floor, and body (from firewall rearward, wheel tubs permitted), roll bar permitted in place of roll cage. In convertibles running 10.99 (6.99\*) or quicker or exceeding 135 mph, roll cage mandatory. Cars running between 7.50 (4.50\*) and 9.99 (6.39\*) must have chassis inspected every three years by NHRA and have a serialized sticker affixed to cage before participation. Plating of chassis prohibited for all cars manufactured after Jan. 1, 2003. In A/Gas, vehicle must meet either SFI Spec 25.4 or 25.5. All other classes, any vehicles running 8.49 to 7.50 (5.49\* to 4.50\*) and/or exceeding 180 mph must meet appropriate SFI Spec for body used. All others must conform to specs for body style used, as listed in General Regulations 4:11, 10:6.

### **ROLL-CAGE PADDING**

Beginning June 1, 2011, roll-cage padding meeting SFI Spec 45.1 mandatory on any vehicle running 9.99 (\*6.39) and quicker. Padding must be used anywhere driver's helmet may come in contact with roll-cage components. See General Regulations 4:11, 10:6.

### **WHEELBASE**

Minimum 90 inches, unless car has original engine. Maximum wheelbase variation from left to right: 1 inch.

## **TIRES & WHEELS: 5**

### **TIRES**

Racing slicks permitted.

### **WHEELS**

Must be automotive-type wheels suitable for street use. Minimum wheel size: 13 inches (unless originally equipped with smaller wheels and vehicle is equipped with

original engine). The thread engagement on all wheel studs to the lug nut, or lug bolt to wheel hubs, must be equivalent to or greater than the diameter of the stud. Length of the stud/bolt does not determine permissibility; length of the engagement between the stud and lug determines permissibility. Snap-on hubcaps prohibited. See General Regulations 5:2.

## **INTERIOR: 6**

### **SEATS**

Properly braced, framed, and supported seats constructed of aluminum, fiberglass, carbon fiber, or double-layer poly (automotive accessory seats) permitted. See General Regulations 6:2.

### **UPHOLSTERY**

Optional. See General Regulations 6:2.

### **WINDOW NET**

Mandatory in any full-bodied car required by the rules to have a roll cage. See General Regulations 6:3.

## **BODY: 7**

### **BODY**

Full-bodied vehicles: Must have full top and windshield. Convertibles permitted with full windshield. All full-bodied cars must have two driver exits. Four stock-production fenders mandatory, fiberglass duplicates permitted. Fenders may be trimmed for tire clearance; altered fenders must have edges re-rolled or beaded.

### **FIREWALL**

Mandatory. See General Regulations 6:1, 7:4.

### **FLOOR**

Mandatory. See General Regulations 6:1, 7:5.

### **HOOD**

Optional. Carburetors must be covered by flash shield or scoop. Hood scoop permitted. See General Regulations 4:1, 7:6.

### **WINDSHIELD, WINDOWS**

Stock-bodied vehicles: mandatory, must be in good condition and free from cracks. May be replaced with shatterproof material, 1/8-inch-minimum thickness. OEM windshield may not be cut for scoops, carb, etc. Windshield/window tint must meet the applicable state requirements. Windows must be closed during races, need not be operable. Decals permitted on rear quarter and rear window only. See General Regulations 7:8.

## **ELECTRICAL: 8**

### **BATTERIES**

Batteries must be securely mounted, may not be located in driver compartment. Relocated battery(s) must be fastened to frame or frame structure with a minimum of two 3/8-inch-diameter bolts. See General Regulations 8:1.

### **DELAY BOX/DEVICES**

Prohibited. Electronic devices include but are not limited to throttle stops, delay boxes, cross-over boxes, rpm or timer shifters, and rpm- or pressure-activated switches. See General Regulations 8:2.

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### **IGNITION**

Timed ignition-interruption devices (stutter boxes) prohibited. Starting-line and/or “high-side” rev limiters permitted. Two-steps, rev limiters, or any other rpm-limiting devices, legal unto themselves but altered or installed so as to function as a downtrack rpm controller, prohibited.

### **INSTRUMENTS**

One tachometer allowed. No wiring (other than the two-step/launch-control wire that splices into the transbrake or line-loc control wire) shall be connected.

### **MASTER CUTOFF**

Mandatory on any car with a battery running 9.99 (6.39\*) or quicker, any car exceeding 135 mph, or any car where the battery is relocated into the trunk area. See General Regulations 8:4.

### **TAILLIGHTS**

One functional taillight mandatory. Flashing, blinking, or strobe lights prohibited. See General Regulations 8:6.

## **SUPPORT GROUP: 9**

### **COMPUTER**

Prohibited. See General Regulations 9:1.

### **DATA RECORDER**

Data recorders permitted. See General Regulations 9:2.

### **FIRE-EXTINGUISHER SYSTEM**

Permitted; must be securely mounted. See General Regulations 9:3.

### **PUSH BAR**

Push bar must be designed to prevent push car from riding up on rear wheel of open-wheeled race cars. See General Regulations 9:8.

### **TOW VEHICLES**

Optional, per track/event policy.

### **WARM-UPS**

See General Regulations 9:4, 9:12.

## **DRIVER: 10**

### **CREDENTIALS**

Valid NHRA competition license mandatory in A/Gas, B/Gas, and C/Gas or any vehicle running faster than 135 mph. Valid state- or government-issued driver's license beyond a learner's-permit level mandatory for cars running 10.00 (6.40\*) or slower. See General Regulations 10:4.

### **DRIVER RESTRAINT SYSTEM**

Seat belt mandatory in all cars. Three-inch driver restraint system meeting SFI Spec 16.1 mandatory. SFI 16.1 restraint system, when required, includes crotch strap and must be updated at two-year intervals from date of manufacture. See General Regulations 10:5, 10:11.

### **HEAD PROTECTOR**

Mandatory on any car with a roll bar or roll cage. See General Regulations 10:6.

## **HELMET**

For all 10.00 to 13.99 closed-bodied cars, either an open-face or a full-face Snell M2000, M2005, M2010, K2005, SA2000, SA2005, SA2010, SFI 31.1A, 31.1/2005, 31.2A, 41.1A, 41.1/2005, or 41.2A helmet with or without a shield is mandatory.

For all 9.99 and quicker closed-bodied cars, a full-face Snell M2000, M2005, M2010, K2005, SA2000, SA2005, SA2010, SFI 31.2A or 41.2A helmet mandatory; shield permitted (goggles prohibited).

For all 9.99 and quicker supercharged cars, a full-face Snell SA2000, SA2005, SA2010, or SFI 31.2A helmet mandatory; shield permitted (goggles prohibited).

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

Neck collar meeting SFI Spec 3.3 mandatory in A/Gas, B/Gas, and C/Gas or cars exceeding 135 mph. A head and neck restraint device/system may be used in lieu of a neck collar. See General Regulations 10:8.

**Beginning Jan. 1, 2012, head and neck restraint device/system meeting SFI Spec 38.1 mandatory in A/Gas.**

## **PROTECTIVE CLOTHING**

Shorts, bare legs, tank tops, or bare torsos prohibited when driving in competition. All drivers are required to wear full-length pants, shoes, and socks. Nylon or nylon-type clothing and open-toe shoes prohibited. See General Regulations 10:10.

**10.00 (6.40\*) TO 13.99 (8.59\*); ALL E.T. NON-OEM SUPERCHARGED WITH AN OEM OR .024-INCH STEEL FIREWALL:** Jacket meeting SFI Spec 3.2A/1 mandatory.

**10.00 (6.40) TO 13.99 (8.59\*); ALL E.T. SUPERCHARGED WITHOUT A FULL OEM OR .024-INCH STEEL FIREWALL:** Jacket meeting SFI Spec 3.2A/5 and gloves meeting SFI Spec 3.3/1 mandatory.

**9.99 (6.39\*) TO 7.50 (4.50\*); CLOSED-BODIED WITHOUT AN OEM OR FULL .024-INCH STEEL FIREWALL) WITH SUPERCHARGER:** Jacket and pants meeting SFI Spec 3.2A/15, and gloves and shoes or boots meeting SFI Spec 3.3/5 mandatory.

**10.00 (6.40\*) TO 11.49 (7.35\*); ALL E.T. NATURALLY ASPIRATED, OEM SUPERCHARGED, WITH A FULL OEM OR .024-INCH STEEL FIREWALL:** Jacket meeting SFI Spec 3.2A/1 mandatory.

**9.99 (6.39\*) TO 7.50 (4.50\*) OR ANY VEHICLE EXCEEDING 135 MPH:** Jacket and pants meeting SFI Spec 3.2A/5 and gloves meeting SFI Spec 3.3/1 mandatory, except as noted above.

**ANY VEHICLE WITH AN AUTOMATIC TRANSMISSION IN DRIVER COMPARTMENT (NO FLOOR COVERING TRANSMISSION):** Jacket and pants or suit meeting SFI Spec 3.2A/15, gloves meeting SFI Spec 3.3/5, and boots or shoes meeting SFI Spec 3.3/5 mandatory.

**9.99 AND FASTER, ANY VEHICLE, SUPERCHARGED WITH ALCOHOL:** Suit meeting SFI Spec 3.2A/15, gloves and boots meeting SFI Spec 3.3/5 mandatory.  
\* = eighth-mile equivalent

## **Section 3**

# ***Nostalgia Eliminator***

### **DESIGNATION**

N/E, N/E II, N/E III, preceded by number.

### **CLASSES**

N/E: 7.60 standard

N/E II: 8.60 standard

N/E III: 9.60 standard

Competition is based on using a four-tenths heads-up Pro Tree.

N/E: Reserved for front-engine center-steer cars only (dragsters, altered, and pre-1973 Funny Cars).

Left-hand- and right-hand-steered roadsters and altered will be allowed to run in N/E II and N/E III.

## **REQUIREMENTS & SPECIFICATIONS**

### **ENGINE: 1**

#### **ENGINE**

Internal-combustion automotive-type engine permitted, maximum two. Harmonic balancer meeting SFI Spec 18.1 mandatory. See General Regulations 1:1.

#### **EXHAUST SYSTEM**

Competition exhaust permitted. Exhaust must be directed out of car to rear, away from driver and fuel tank. See General Regulations 1:3.

#### **FUEL**

Racing gasoline, gasoline, alcohol, gasohol, diesel, ethanol, natural gas, and propane permitted. Nitromethane accepted.

#### **FUEL SYSTEM**

Fuel lines must be located outside driver compartment. Fuel tank must be within the confines of the body. No pressurized fuel tanks allowed. See General Regulations 1:5.

#### **LIQUID OVERFLOW**

Catch can mandatory for coolant overflow; one-pint (16-ounce) minimum capacity. See General Regulations 1:7.

#### **OIL RETENTION DEVICE**

A properly fitting, SFI Spec 7.1, 7.2, or NHRA-accepted lower engine oil retention device is mandatory. Dragsters may utilize a belly pan in lieu of a device attached to the engine. Belly pan must extend from framerail to framerail and extend forward of the harmonic balancer and rearward of the flywheel and must incorporate minimum 2-inch-high lips on all sides. See General Regulations 1:8.

#### **NITROUS OXIDE**

Nitrous oxide prohibited.

#### **THROTTLE**

Positive throttle return required. Each car must have a foot throttle incorporating a positive-acting return spring attached directly to the carburetor/injector throttle arm. Throttle control must be manually operated by driver's foot, incorporating a positive-action return system. See General Regulations 1:12.

## **SUPERCHARGER**

Permitted on gasoline-, racing-gasoline-, and alcohol-burning cars. Rotors must be driven from the front; both external drive and internal gearing. Supercharger restraint system meeting SFI Spec 14.1 mandatory on supercharger when alcohol is used as fuel or Roots-type 6.71 with nitromethane. Manifold burst panel mandatory. Supercharger restraint straps must be covered with a fire-resistant material. 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. Supercharger belt guard that protects all fuel, oil, and water lines required. No composite materials in injector hat and/or scoop allowed. Composite materials include but are not limited to carbon fiber, Kevlar, and weave-graphite fiber. Hat/scoop must be nostalgic in appearance. Internal modifications permitted. Scoops limited to 12.5 inches above throttle body. Air intake limited to 65 square inches. See General Regulations 1:10.

## **VALVE COVERS**

Cast or fabricated metal valve covers, using all attachment bolt holes, mandatory on supercharged, methanol-burning cars.

## **DRIVETRAIN: 2**

### **CLUTCH, FLYWHEEL, FLYWHEEL SHIELD**

Flywheel and clutch meeting SFI Spec 1.1 or 1.2 (two-disc maximum) mandatory. Flywheel shield meeting SFI Spec 6.1, 6.2, 6.3, or 9.1 mandatory. See General Regulations 2:3, 2:5, 2:6, 2:10.

### **DRIVELINE**

Driveline loop mandatory. See General Regulations 2:4.

### **REAR END**

Aftermarket axles and axle-retention device mandatory. See General Regulations 2:11.

### **TRANSMISSION, AFTERMARKET PLANETARY**

Transmission shield meeting SFI Spec 4.1 mandatory on any supercharged vehicle or any vehicle burning methanol, running 9.99 seconds or quicker, and equipped with aftermarket planetary transmission. See General Regulations 2:12, 2:13.

### **TRANSMISSION, AUTOMATIC**

Spring-loaded, positive reverse lockout device and functional neutral safety switch mandatory. Transmission shield meeting SFI Spec 4.1 mandatory. Automatic transmission flexplate meeting SFI Spec 29.1 and flexplate shield meeting SFI Spec 30.1 mandatory on cars running 9.99 (6.39\*) or quicker or any car exceeding 135 mph. See General Regulations 2:12, 2:14.

## **BRAKES & SUSPENSION: 3**

### **BRAKES**

Minimum two rear-wheel (one caliper per wheel) hydraulic brakes mandatory. See General Regulations 3:1.

### **STEERING**

See General Regulations 3:3, 4:1.

### **WHEELIE BARS**

Permitted. Wheels must be nonmetallic. See General Regulations 3:6.

**FRAME: 4**

**BALLAST**

Permitted. See General Regulations 4:2.

**GROUND CLEARANCE**

Minimum 3 inches from front of car to 12 inches behind centerline of front axle, 2 inches for remainder of car, except oil pan and headers. See General Regulations 4:5.

**PARACHUTE**

Mandatory on any car that runs 150 mph or faster. See General Regulations 4:8.

**ROLL CAGE**

Mandatory. Must have chassis inspected every three years by NHRA and have a serialized sticker affixed to cage before participation. Plating of chassis prohibited for all cars manufactured after Jan. 1, 2003. Vehicle must meet appropriate SFI Specification. See General Regulations 4:11, 10:6.

**ROLL-CAGE PADDING**

Beginning June 1, 2011, roll-cage padding meeting SFI Spec 45.1 mandatory on any vehicle running 9.99 (\*6.39) and quicker. Padding must be used anywhere driver's helmet may come in contact with roll-cage components. See General Regulations 4:11, 10:6.

**WHEELBASE**

Minimum 90 inches, unless car has original engine. Maximum wheelbase variation from left to right: 1 inch; dragsters, 2 inches. Minimum front tread width: 26 inches on any dragster.

**TIRES & WHEELS: 5**

**TIRES**

Minimum diameter of 13 inches on front tires of any dragster. See General Regulations 5:1.

**WHEELS**

Wire wheels permitted on front of dragsters only, provided total weight of car does not exceed 1,800 pounds, excluding driver. The thread engagement on all wheel studs to the lug nut, or lug bolt to wheel hubs, must be equivalent to or greater than the diameter of the stud. Length of the stud/bolt does not determine permissibility; length of the engagement between the stud and lug determines permissibility. Snap-on hubcaps prohibited. See General Regulations 5:2.

**INTERIOR: 6**

**UPHOLSTERY**

Optional. See General Regulations 6:2.

**BODY: 7**

**BODY**

**Altered-body vehicles:** May be chopped, channeled, sectioned, streamlined, etc. Sedan delivery, pickup trucks (maximum, one ton), or sedan pickups (Ranchero, El Camino) permitted. Fiberglass bodies permitted. Door hinges on any lift-off door must have safety pins or locks.

**Dragsters:** Body and cowl must be constructed of metal, fiberglass, or carbon fiber and extend forward to firewall. Driver compartment must be designed to prevent driver's body or limbs from making contact with wheels, tires, exhaust system, or track surface should an incident occur. Subflooring independent of car body is mandatory in dragster that allows driver's legs to rest on belly pan or chassis. On front-engine cars, intake scoop may not extend more than 11 inches above height of carburetor top. Front wheel fairings prohibited.

### **FIREWALL**

Mandatory. See General Regulations 6:1, 7:4.

### **FLOOR**

Mandatory. See General Regulations 6:1, 7:5.

### **WINDSHIELD, WINDOWS**

Optional. Windscreen mandatory. See General Regulations 7:7, 7:8.

## **ELECTRICAL: 8**

### **BATTERIES**

Batteries must be securely mounted, may not be located in driver compartment. See General Regulations 8:1.

### **DELAY BOX/DEVICES**

Prohibited. Electronic devices include but are not limited to throttle stops, delay boxes, cross-over boxes, rpm or timer shifters, and rpm or pressure-activated switches. See General Regulations 8:2.

### **IGNITION**

Timed ignition-interruption devices (stutter boxes) prohibited. Starting-line and/or "high-side" rev limiters permitted. Two-steps, rev limiters, or any other rpm-limiting devices, legal unto themselves but altered or installed so as to function as a downtrack rpm controller, prohibited.

### **INSTRUMENTS**

One tachometer allowed. No wiring (other than the two-step/launch-control wire that splices into the transbrake or line-loc control wire) shall be connected.

### **MASTER CUTOFF**

Mandatory. See General Regulations 8:4.

### **TAILLIGHTS**

One functional taillight mandatory. Flashing, blinking, or strobe lights prohibited. See General Regulations 8:6.

## **SUPPORT GROUP: 9**

### **COMPUTER**

Prohibited. See General Regulations 9:1.

### **DATA RECORDER**

Data recorders permitted. See General Regulations 9:2.

### **FIRE-EXTINGUISHER SYSTEM**

Permitted; must be securely mounted. See General Regulations 9:3.

### **TOW VEHICLES**

Permitted. Full-size tow vehicle permitted in N/E; small tow vehicle allowed in N/E II and N/E III.

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### **WARM-UPS**

See General Regulations 9:4, 9:12.

## **DRIVER: 10**

### **ARM RESTRAINTS**

Mandatory. See General Regulations 10:3.

### **CREDENTIALS**

Valid NHRA competition license mandatory. See General Regulations 10:4.

### **DRIVER RESTRAINT SYSTEM**

Three-inch driver restraint system meeting SFI Spec 16.1 mandatory. SFI 16.1 restraint system must be updated at two-year intervals from date of manufacture. See General Regulations 10:5, 10:11.

### **HEAD PROTECTOR**

Mandatory. See General Regulations 10:6.

### **HELMET**

For all 9.99 and quicker open-bodied cars, a full-face Snell M2000, M2005, M2010, K2005, SA2000, SA2005, SA2010, SFI 31.2A or 41.2A helmet mandatory; shield mandatory (goggles prohibited).

For all 9.99 and quicker supercharged cars, a full-face Snell SA2000, SA2005, SA2010, or SFI 31.2A helmet mandatory; shield mandatory (goggles prohibited).

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

Neck collar meeting SFI Spec 3.3 mandatory. A head and neck restraint device/system may be used in lieu of a neck collar. See General Regulations 10:8.

**Beginning Jan. 1, 2012, head and neck restraint device/system meeting SFI Spec 38.1 mandatory in N/E I.**

### **PROTECTIVE CLOTHING**

If no specific Protective Clothing requirements are stated for a particular class, then the minimum requirements are as follows: full-length pants; short- or long-sleeved shirt; closed shoes; and socks. No shorts. No bare legs. No bare torsos. No tank tops. No open-toe or open-heel shoes or sandals. Synthetic clothing not recommended. See General Regulations 10:10.

An SFI 3.3 head sock or SFI 3.3 skirted helmet is required on all open-bodied cars or all cars 7.49 & quicker, where a neck collar is not used.

### **9.99 (6.39\*) TO 7.50 (4.50\*) FRONT-ENGINE, OPEN-BODIED**

**VEHICLES SUPERCHARGED:** Jacket and pants meeting SFI Spec 3.2A/15, gloves and shoes/boots meeting SFI Spec 3.3/15 mandatory.

### **9.99 (6.39\*) TO 7.50 (4.50\*) OR ANY VEHICLE EXCEEDING 135 MPH:**

Jacket and pants meeting SFI Spec 3.2A/5 and gloves meeting SFI Spec 3.3/1 mandatory, except as noted above.

**ALL OPEN-BODY VEHICLES:** Gloves meeting SFI Spec 3.3/1 and arm restraints mandatory, except as noted above.

### **ANY VEHICLE WITH AN AUTOMATIC TRANSMISSION IN DRIVER COMPARTMENT (NO FLOOR COVERING TRANSMISSION):**

Jacket and pants or suit meeting SFI Spec 3.2A/15, gloves meeting SFI Spec 3.3/5, and boots or shoes meeting SFI Spec 3.3/5 mandatory.

**9.99 AND FASTER, ANY VEHICLE, SUPERCHARGED WITH ALCOHOL:**  
suit meeting SFI Spec 3.2A/15, gloves and boots meeting SFI Spec 3.3/5 mandatory.  
\* = eighth-mile equivalent

## **Section 4**

# **7.0 Eliminator**

### **DESIGNATION**

7/E, preceded by car number.

Reserved for supercharged, methanol-burning and injected nitromethane-burning front-engine dragsters, center-steer altered and (pre-1980) funny cars.

### **REQUIREMENTS & SPECIFICATIONS**

#### **ENGINE: 1**

### **CYLINDER HEADS**

Aftermarket alloy heads permitted.

### **ENGINE**

Block may be cast or aluminum.

### **EXHAUST SYSTEM**

Competition exhaust permitted. No collector-style headers allowed. Exhaust must be directed away from driver.

### **FUEL SYSTEM**

Fuel lines not permitted in driver's compartment. Fuel shutoff operable from the driver's seat mandatory. Fuel tank must be mounted above lower framerail and must be equipped with a positive locking screw-on cap.

### **OIL RETENTION DEVICE**

A properly fitting SFI Spec 7.1, 7.2 or NHRA-accepted lower engine oil retention device; may use a belly pan in lieu of a device attached to the engine. The belly pan must extend from framerail to framerail and extend forward of the harmonic balancer and rearward to rear engine plate and must incorporate a minimum 2-inch-high lip on all sides. A nonflammable, oil-absorbent liner mandatory inside of retention device. See General Regulations 1:8.

### **SUPERCHARGER**

Roots-type, only. High helix prohibited. Manifold burst panel meeting SFI Spec 23.1, plus restraint system meeting SFI Spec 14.1 mandatory. Belt guard that protects all fuel, oil, and water lines required.

### **THROTTLE**

Throttle control must be manually operated by driver's foot: Electronics, pneumatics, hydraulics, or any other device may in no way affect the throttle operation. A mechanical device for controlling engine rpm during burnouts may be attached to the injector or throttle linkage but may not be driver-controlled.

### **VALVE COVERS**

Cast or fabricated metal valve covers using all attachment bolt holes mandatory. Valve-cover gaskets, O-rings, etc. must be completely bonded/glued to either the valve cover or cylinder-head sealing surface. Vent tube adapters on the valve covers must either

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be fully welded to the valve covers or incorporate a gasket or O-ring that is bonded/glued to either the adapter or the valve cover. Valve covers must be fastened to the cylinder heads with studs and nuts in lieu of bolts where possible. Spark-plug tubes that penetrate the valve covers must have a restraining device to contain the spark-plug tube in the valve cover in the event the spark plug is discharged.

### **VENT-TUBE BREATHERS**

NHRA-accepted catch-can/vent-tube system mandatory for all supercharged engines. Twist-on/quick-disconnect fittings between the vent-tube hoses and the valve-cover vent-tube adapters must incorporate a secondary locking device such as a hasp pin, ball lock pin, etc. Tape is not a satisfactory primary or secondary locking device. Double clamps are required on each end of all hoses used in the vent system, including the dry-sump vents. Minimum 1-inch-inside-diameter hoses are required from each valve cover to the catch-can inlets and/or framerails and from each framerail outlet to both catch-can inlets. Minimum catch-can(s) capacity is a 1-gallon sump. Catch cans must have adequate internal baffling. Minimum catch-can inlet configuration is one 1-inch-inside-diameter (or equivalent area) tubes. Minimum catch-can outlet/discharge configuration is one 1-inch-inside-diameter openings (or equivalent area). Vent tubes must be unobstructed from the interior of the valve cover to the interior of the catch can; i.e., no orifices, reduced areas, filler materials, etc.

## **DRIVETRAIN: 2**

### **CLUTCH, FLYWHEEL, FLYWHEEL SHIELD**

Flywheel and clutch meeting SFI Spec 1.4 and flywheel shield meeting SFI Spec 6.2 mandatory on all cars. Three discs maximum. Clutch must be manually operated by driver's foot: Electronics, pneumatics, hydraulics, or any other device may in no way affect the clutch system. Throwout bearing must release all fingers, levers, stages, etc. simultaneously. Staged or variable release clutches of any description prohibited. Clutch/bellhousing exhaust filter mandatory.

### **DRIVELINE**

A full cover of minimum .063-inch aluminum must enclose the driveline. Couplers mandatory.

### **REAR END**

Aftermarket axles and axle-retention device mandatory. See General Regulations 2:2, 2:11.

### **TRANSMISSION**

Maximum forward gears limited to three. Reverser mandatory. OEM transmission case accepted. Automatic trans must be covered by a trans shield meeting SFI 4.1, also a flexplate meeting SFI spec 29.1 with a SFI 30.1 flexplate shield. Planetary transmission permitted with a SFI spec 4.1 blanket required. Clutch hold-down device recommended. Automated shifters and/or timers-type shifting devices prohibited; each individual shift must be a function of the driver.

### **TRANSMISSION SHIELD**

A one-piece ballistic shield covering all units mandatory. Must meet SFI Spec 4.1.

## **BRAKES & SUSPENSION: 3**

### **BRAKES**

Automated brakes prohibited. Application and release of brakes must be a function of the driver. Dual spots or equivalent oval pucks mandatory; minimum two rear-wheel hydraulic brakes. Hand brake, if used, must be located inside body or driver compartment. Steel brake lines mandatory. Brake lines passing engine or blower drive must be shielded.

**STEERING**

Commercially available quick-disconnect steering wheel meeting SFI Spec 42.1 or steering box crossmember mandatory. Use of a pinned steering crossmember in lieu of an SFI quick-disconnect steering wheel prohibited on front-engine cars. A device must be used to prevent a long steering shaft from injuring driver in case of frontal impact.

**SUSPENSION**

Front suspension optional.

**WHEELIE BARS**

Permitted. Wheels must be nonmetallic.

**FRAME: 4****BALLAST**

Permitted. Maximum total ballast (welded or bolted), 250 pounds.

**GROUND CLEARANCE**

Minimum 3 inches from front of car to 12 inches behind centerline of front axle, 2 inches for remainder of car, except oil pan.

**PARACHUTE**

Fire-resistant protective covers must be on all parachute packs and unpacked shroud lines.

**ROLL CAGE**

Chassis must meet SFI Spec 10.1E (front-engine, driver in front of rear end) or SFI Spec 10.2 (altered) or SFI Spec 2.2B or 2.4B (front-engine, driver behind rear end). Plating of chassis prohibited; painting permitted. Chassis must be inspected every three years by NHRA and have serialized sticker affixed to frame before participation. Roll-cage padding meeting SFI Spec 45.1 mandatory where driver's helmet may come in contact with roll-cage components. Additional padding, mounted on flat stock and fastened to the roll cage on both sides of the driver's helmet, mandatory. Additional padding must be NHRA accepted (with manufacturer's name displayed), securely mounted using bolts or locking fasteners, and must include a flame-retardant covering. A current list of NHRA-accepted lateral head supports is available on NHRA.com. All wiring must be external of the framerails; routing of cables, hydraulic, or pneumatic lines inside the chassis is permitted. Pressurization of framerails in lieu of air bottles is prohibited.

**WHEELBASE**

Maximum 225 inches.

**TIRES & WHEELS: 5****TIRES**

Tires must be specified for racing use by manufacturer.

**INTERIOR: 6****UPHOLSTERY**

Magnesium seats prohibited.

**BODY: 7****BODY**

Body and cowl must be metal, carbon fiber, or fiberglass. Driver compartment, frame structure, roll bars, and body must be designed to prevent driver's body or limbs from contact with track surface. Subflooring, inside but independent of body, mandatory where driver's legs rest on belly pan or chassis. Front overhang not to exceed 40 inches, measured from centerline of front spindle to forwardmost point of car. Ground effects of any description prohibited. Ground effects include but are not limited to rocker skirts, belly pans, sheet-metal work under the body that produces a "tunnel" for the passage of air, etc.

**WINDSCREEN**

Mandatory.

**WINGS/SUPPORTS**

Maximum canard wing restricted to 400 square inches per side. Canards may not extend more than 1 inch outside rear tire. Front wing must be below front tire and may not extend outside of front tires. Total front-wing surface may not exceed 400 square inches. Canards and front wing, only aero surfaces allowed, except for altered, a wing restricted to 750 square inches is permitted. Adjustment of spoiler during run prohibited.

**ELECTRICAL: 8****IGNITION**

Single magneto or single coil ignition only. Mag advance or retard must be function of the driver. No digital or programmable ignitions allowed. Single over-rev rpm chip box allowed.

**SUPPORT GROUP: 9****COMPUTERS**

Computers prohibited.

**DATA RECORDERS**

Data recorders permitted. Cannot perform any function in fuel, clutch, or driver management.

**FIRE EXTINGUISHER SYSTEM**

Fire extinguisher system meeting SFI Spec 17.1 mandatory. Minimum 20-pound or more NHRA-accepted fire extinguishing system mandatory on all front-engine open-bodied alcohol-burning supercharged/turbocharged cars. Activation cables must be protected in bellhousing and engine area. Activation cables and distribution tubing must be steel. Must be installed per manufacturer's specifications. Carbon-fiber bottles prohibited. See General Regulations 9:3.

**TOW VEHICLES**

Permitted.

**WARM-UPS**

See General Regulations 9:4, 9:12.

**DRIVER: 10**

**ARM RESTRAINTS**

Mandatory.

**CREDENTIALS**

Valid NHRA Advanced E.T. license mandatory.

**DRIVER RESTRAINT SYSTEM**

Three-inch driver-restraint system meeting SFI Spec 16.1 mandatory. All belts must be covered with a fire-resistant covering. Restraint system must be updated at two-year intervals from date of manufacture. See General Regulations 10:5.

**HELMET**

A full-face helmet with shield meeting Snell SA2000, SA2005, SA2010, SFI 31.2A, or 31.1/2005 mandatory. See General Regulations 10:7.

**HEAD AND NECK RESTRAINT DEVICE/SYSTEM**

A head and neck restraint device/system is mandatory in any vehicle running 200 mph or faster. At all times that the driver is in the race vehicle, from the ready line until the vehicle is on the return road, driver must properly utilize an SFI-approved head and neck restraint device/system, including connecting the helmet as required for full functionality of the device. The device/system must meet SFI Spec 38.1 and must display a valid SFI label. The head and neck restraint device/system, when connected, must conform to the manufacturer's mounting instructions, and it must be configured, maintained, and used in accordance with the manufacturer's instructions.

**Beginning Jan. 1, 2012, all drivers in the class will be required to wear a head and neck restraint device/system meeting SFI Spec 38.1.**

**PROTECTIVE CLOTHING**

Driver's suit meeting SFI Spec 3.2A/20, gloves 3.2A/15, boots 3.3/15, and head sock 3.3. All jacket and pants or driver suit that meet the SFI Spec 3.2A/15 or 3.2A/20 must be recertified on a five-year interval. Head sock is not mandatory when helmet is manufactured with a skirt labeled as meeting SFI Spec. 3.3.

***Section 5***  
***Junior Fuel Eliminator***

**DESIGNATION**

JF preceded by car number.

**CLASS**

JF: 3.50 pounds per cubic inch, 1,300-pound minimum weight. Limited to OEM cast-iron Hemi; 23-degree small-block Chevy, big-block Chevy and Ford may use aftermarket cast-iron cylinder head, but stock valve angles must be retained.

**REQUIREMENTS & SPECIFICATIONS**

**ENGINE: 1**

**CYLINDER HEAD**

Alloy heads prohibited. Cylinder heads limited to current technology. Any new cylinder-head design must be NHRA accepted prior to competition. Chevy SB2 heads prohibited.

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### **ENGINE**

One internal-combustion, reciprocating, automobile-type engine permitted. Cast-iron block mandatory. Maximum 410 cid. No collector-style headers allowed. Dry sumps and evacuation system permitted. See General Regulations 1:2.

### **EXHAUST SYSTEM**

Collector-style headers prohibited. See General Regulations 1:3.

### **FUEL**

Methanol mandatory; all other fuels prohibited. Propylene oxide and/or nitrous oxide prohibited. See General Regulations 1:6.

### **FUEL SYSTEM**

Injector diameter limited to 2.875 inches as measured across throttle butterfly shaft; round butterflies only. Down nozzles prohibited. Fuel lines must be isolated from driver compartment. Artificial cooling or heating of fuel prohibited. Circulating pumps prohibited. Maximum one fuel pump. Electric/electronic control of fuel system prohibited. Pneumatic allowed, must be controlled by the driver. Mechanical fuel injection, with individual stacks and cast manifold only, or NHRA accepted, mandatory. See General Regulations 1:5.

### **OIL RETENTION DEVICE**

Effective January 1, 2008, a properly fitting, SFI Spec 7.1, 7.2, or NHRA accepted Lower Engine Oil Retention Device is mandatory. Dragsters may utilize a belly pan in lieu of a device attached to the engine. Belly pan must extend from frame rail to frame rail, and extend forward of the harmonic balancer and rearward of the flywheel, and must incorporate minimum 2-inch high lips on all sides. See General Regulations 1:8.

## **DRIVETRAIN: 2**

### **DRIVELINE**

A full cover must enclose the driveline if universal joints are used. Cover material must be minimum .063-inch steel or .125-inch aluminum. See General Regulations 2:4.

### **REAR END**

Aftermarket axles and axle-retention device mandatory. Spool permitted. See General Regulations 2:2, 2:11.

### **TRANSMISSION**

Limited to automotive production, automatic transmission with torque converter, maximum two forward speeds. Full shift pattern mandatory. Mechanical lockup converters prohibited. Transmission brake permitted. Electric transbrake release system only. Maximum one transmission brake solenoid permitted. Automatic transmission flexplate meeting SFI Spec 29.1 mandatory. Aftermarket replacement transmission case, OEM replica, and accepted by NHRA, permitted. Overdrive/underdrive units prohibited. Pneumatic, electric, or other non-OEM automatic shifters prohibited. See General Regulations 2:14.

### **TRANSMISSION SHIELD**

Transmission shield meeting SFI Spec 4.1 mandatory. Automatic transmission flexplate shield meeting SFI Spec 30.1 mandatory. See General Regulations 2:14.

## **BRAKES & SUSPENSION: 3**

### **BRAKES**

Two rear-wheel hydraulic disc brakes mandatory. Hand brake, if used, must be located inside roll cage. See General Regulations 3:1.

## **STEERING**

A device must be used to prevent long steering shaft from injuring driver in case of frontal impact. If removable steering wheel is used, commercially available quick-disconnect steering-wheel adapter meeting SFI Spec 42.1 mandatory. See General Regulations 3:3.

## **SUSPENSION**

Any automotive-type suspension permitted. Rigid-mounted rear axles permitted. Rigid-mounted front axles permitted if wheelbase is 120 inches or more. Any front suspension using a beam or tubular axle must have radius rods attached to frame. Radius rods not mandatory on front axles rigidly mounted 18 inches or less from kingpin axis. See General Regulations 3:4.

## **WHEELIE BARS**

Permitted. Wheels must be nonmetallic. See General Regulations 3:6.

## **FRAME: 4**

### **BALLAST**

Permitted. See General Regulations 4:2.

### **GROUND CLEARANCE**

Minimum 3 inches from front of car to 12 inches behind centerline of front axle, 2 inches for remainder of car, except oil pan and exhaust headers.

### **PARACHUTE**

Mandatory. See General Regulations 4:8.

### **PINION SUPPORT**

Mandatory. See General Regulations 4:9.

### **ROLL CAGE**

Mandatory. Chassis must be inspected every three years by NHRA and have serialized sticker affixed to frame before participation. Chassis must conform to SFI Spec 2.4B. Roll-cage padding meeting SFI Spec 45.1 mandatory anywhere driver's helmet may come in contact with roll-cage components. See General Regulations 4:4, 4:11, 10:6.

### **WHEELBASE & TREAD WIDTH**

Minimum wheelbase 90 inches, maximum 225 inches. Maximum wheelbase variation from left to right: 2 inches. Minimum front tread width: 26 inches.

## **TIRES & WHEELS: 5**

### **TIRES**

Maximum width 12 inches as measured across tread surface or indicated by manufacturer on the sidewall. See General Regulations 5:1.

### **WHEELS**

Lightweight automotive-type wire wheels permitted on front axle only, provided total car weight does not exceed 1,800 pounds, excluding driver. Maximum rear-wheel width: 12 inches. See General Regulations 5:2.

## **INTERIOR: 6**

### **UPHOLSTERY**

Optional.

**BODY: 7**

**AIRFOIL**

Side-mounted canard-type units permitted, maximum 400 square inches per side. Canards may not extend more than 1 inch outside rear tire. Front wing must be below the top of the front tire and may not extend outside of front tires. Maximum wicker on canards and wings: .500-inch. No disguised aerodynamics permitted. Maximum front overhang 30 inches. Ground clearance must be 3 inches. See General Regulations 7:1.

**BODY**

Body and cowl must be metal, fiberglass, or carbon fiber and extend forward to firewall. Driver compartment, frame structure, roll bars, and body must be designed to prevent driver's body or limbs from making contact with wheels, tires, exhaust system, or track surface. If driver's body is in contact with belly pan, crossmember and subfloor mandatory. Altered-type bodies prohibited. Driver's legs must be retained inside frame by subflooring or other retaining device that is independent of car's body.

**FRONT-WHEEL FAIRINGS**

Prohibited.

**WINDSCREEN**

Mandatory. See General Regulations 7:7.

**ELECTRICAL: 8**

**BATTERIES**

See General Regulations 8:1, 8:3, 8:4.

**DELAY BOXES/DEVICES**

Prohibited. See General Regulations 8:2, 8:8.

**IGNITION**

Single magneto or single coil ignition only. Mag advance or retard must be function of the driver. No rpm chip boxes allowed. See General Regulations 8:1, 8:3, 8:4, 8:5.

**MASTER CUTOFF**

Mandatory on all cars with a battery. See General Regulations 8:4.

**SUPPORT GROUP: 9**

**COMPUTER/DATA RECORDERS**

See General Regulations 9:1, 9:2.

**FIRE EXTINGUISHER SYSTEM**

Fire extinguishing system must meet SFI Spec 17.1. Minimum 5-pound, NHRA-accepted fire extinguishing system mandatory. System must be divided with one nozzle on driver's side and one nozzle on engine. See General Regulations 9:3.

**TOW VEHICLES**

Permitted. See General Regulations 9:10.

**WARM-UPS**

See General Regulations 9:4, 9:12.

**DRIVER: 10**

**ARM RESTRAINTS**

Mandatory. See General Regulations 10:3.

**CREDENTIALS**

Valid NHRA competition license mandatory. See General Regulations 10:4.

**DRIVER**

Any car with no crossmember above driver's legs must have a strap or device to prevent legs from projecting outside chassis.

**DRIVER RESTRAINT SYSTEM**

Three-inch driver restraint system meeting SFI Spec 16.1 mandatory. Restraint system must be updated at two-year intervals from date of manufacture. See General Regulations 10:5.

**HEAD PROTECTOR**

Mandatory. See General Regulations 10:6.

**HELMET**

Full-face helmet with shield meeting Snell SA2000, SA2005, SA2010, SFI 31.2A, 31.1/2005, 41.2A, or 41.1/2005 Specs mandatory. See General Regulations 10:7.

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

Neck collar meeting SFI Spec 3.3 mandatory in all cars running 9.99 (6.39\*) or quicker or cars exceeding 135 mph. A head and neck restraint device/system may be used in lieu of a neck collar. See General Regulations 10:8.

**Beginning Jan. 1, 2012, all drivers in the class will be required to wear a head and neck restraint device/system meeting SFI Spec 38.1.**

**PROTECTIVE CLOTHING**

Jacket and pants meeting SFI Spec 3.2A/15, gloves 3.3/5, and boots/shoes 3.3/5 mandatory. Head sock or skirted helmet required if transmission is located in driver compartment. See General Regulations 10:10.

***Section 6***  
***AA/Gas Supercharged***  
***Eliminator***

**DESIGNATION**

AA/GS preceded by car number.

**CLASS**

AA/Gas Supercharged Eliminator: 5.5 pounds per cubic inch; 2,200-pound minimum.

Competition is based on using a four-tenths heads-up Pro Tree.

Reserved for pre-1973 coupe or sedan that must readily resemble the intended body style.

**REQUIREMENTS & SPECIFICATIONS****ENGINE: 1****CYLINDER HEAD**

Aluminum cylinder head permitted.

**ENGINE**

One internal-combustion, reciprocating, automobile-type engine permitted. Aluminum blocks permitted. Cubic-inch displacement limited to 500 cubic inches maximum.

**ENGINE SETBACK**

Engine setback limited to 15 percent of wheelbase.

**EXHAUST SYSTEM**

Competition exhaust systems permitted. Exhaust must be directed out of body to rear, away from driver and fuel tank. See General Regulations 1:3.

**FUEL**

Methanol mandatory; all other fuels prohibited. Propylene oxide and/or nitrous oxide prohibited. See General Regulations 1:6.

**FUEL SYSTEM**

Fuel lines must be isolated from driver's compartment. Fuel tank must be equipped with a positive locking screw-on cap. Fuel-tank vent, 1-inch-diameter maximum, and must be run outside of the body to vent fuel. Maximum fuel-injector air-inlet opening: 65 square inches measured at butterfly or throttle bodies, excluding cross shaft in fully open position. Fuel-injector hat/scoops must be NHRA-accepted prior to competition. Fuel system limited to a maximum of one mechanical fuel pump, one barrel valve, and one fuel-pressure-activated high-speed pop-off valve. The use of electric, pneumatic, or any other automatic way of switching or sequencing of fuel system is prohibited. Composite materials in the injector hat or scoop permitted. Composite material includes carbon fiber, Kevlar, and weave-graphite fiber. Spacers permitted. Injector hat may not extend above the roof line. Electronic fuel-injection system prohibited. Down nozzles prohibited. See General Regulations 1:5.

**LIQUID OVERFLOW CONTROL**

Mandatory. See General Regulations 1:7.

**NITROUS OXIDE**

Prohibited.

**OIL RETENTION DEVICE**

A properly fitting, SFI Spec 7.1, 7.2, or NHRA-accepted lower engine oil retention device is mandatory, may use a belly pan in lieu of a device attached to the engine. The belly pan must extend from framereail to framereail and extend forward of the harmonic balancer and rearward to rear engine plate and must incorporate a minimum 2-inch-high lip on all sides. A nonflammable, oil-absorbent liner mandatory inside of retention device. See General Regulations 1:8.

**SUPERCHARGER**

Restricted to Roots-type supercharger. Rotor helix angle not to exceed that of standard 71-series GM-type rotor. High-helix rotors prohibited. Maximum size: 6-71, 18.250-inch case length, 11.250-inch case width. 15-inch rotor length; maximum rotor diameter: 5.840 inches including fixed stripping. Rotors must be driven from the front; both external drive and internal gearing. The case must be one piece with removable front and rear bearing end plates: rotor must be contained within one-piece case. OEM manufacturer's (cast) case mandatory, billet cases prohibited. No modifications to case as manufactured. Inlet shoes for inlet sizing permitted. Any inlet/outlet cavity in front of the rotors is restricted to maximum 1.425 from the face of the bearing plate

to the back of the cavity. The rotors must be driven from the front (both external drive and the internal gearing). Maximum supercharger overdrive limit is 55.00 percent. Manifold burst panel meeting SFI Spec 23.1 plus restraint system meeting SFI Spec 14.1 mandatory. Intercoolers prohibited on supercharged vehicles. Blower-belt guard that protects all fluid, oil, and water lines required. Supercharger must be in a conventional location above the intake manifold and cylinder heads. Supercharger restraint device may not be modified. See General Regulations 1:10, 1:11.

### **THROTTLE**

Must be manually operated by the driver's foot. Electronics, pneumatics, hydraulics, or any other device may in no way affect the throttle operation; exception: entries utilizing a torque converter may use pneumatic throttle control for starting line/staging rpm limiter only. See General Regulations 1:12.

## **DRIVETRAIN: 2**

### **CLUTCH, FLYWHEEL, FLYWHEEL SHIELD**

Flywheel and clutch meeting SFI Spec 1.1, 1.2, or 1.5 mandatory. Flywheel shield meeting SFI Spec 6.1 or 9.1 required on cars using an SFI Spec 1.1 clutch. Flywheel shield meeting SFI Spec 6.2 or 6.3 mandatory on all cars using an SFI Spec 1.2 or 1.5 clutch. Clutch must be manually operated by the driver's foot: electronics, pneumatics, hydraulics, or any other device may in no way affect the clutch system. Throwout bearing must release all fingers, levers, stages, etc. simultaneously. Staged or variable release clutches of any description prohibited. See General Regulations 2:3, 2:5, 2:6, and 2:9.

### **DRIVELINE**

Driveshaft loop mandatory. See General Regulations 2:4.

### **REAR END**

Aftermarket axles and axle-retention device mandatory. See General Regulations 2:2, 2:11.

### **TRANSMISSION**

Aftermarket planetary transmission permitted, limited to maximum five forward speeds and reverse. All transmissions must be equipped with an SFI Spec 4.1 transmission shield. Aftermarket converter drive units permitted. When an aftermarket converter drive is utilized, an SFI Spec 6.1 or 6.3 flywheel shield and an SFI Spec 29.1 flexplate are mandatory. All entries utilizing a converter must be equipped with a neutral safety switch and a reverse lockout. Transmission brake permitted on all converter-equipped entries. Lockup converters and overdrive units are prohibited. A 1-to-1 relationship is mandatory in high gear for all transmission types. Automated shifters and/or timer/rpm-type shifting devices prohibited; each individual shift must be a function of the driver. Shifting must be controlled by manual or pneumatic means only (driver pulls the lever or pushes the button); electric or electronics may in no way affect the shifting mechanism.

## **BRAKES & SUSPENSION: 3**

### **BRAKES**

Four wheel hydraulic brakes mandatory. Hand brake, if used, must be located inside roll cage. Steel brake lines mandatory. See General Regulations 3:1.

### **STEERING**

Minimum steering-wheel diameter 11 inches. If removable steering wheel is used, commercially available quick-disconnect steering-wheel adapter meeting SFI Spec 42.1 mandatory. See General Regulations 3:3.

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### **SUSPENSION**

Full automotive-type suspension mandatory on all four wheels. Minimum one hydraulic shock per rear wheel. Electronic- or pneumatically controlled shocks prohibited. Lockup shocks prohibited. Cars with independent A arm or strut-type front suspension must have a minimum of one hydraulic shock per front wheel. Cars with torsion bar front suspension do not require front shocks. Rigid mounted rear ends prohibited. See General Regulations 3:4.

### **TRACTION BARS**

Permitted. See General Regulations 3:5.

### **WHEELIE BARS**

Permitted. Wheels must be nonmetallic. See General Regulations 3:6.

## **FRAME: 4**

### **BALLAST**

Permitted. See General Regulations 4:2.

### **GROUND CLEARANCE**

Minimum 3 inches from front of car to 12 inches behind centerline of front axle, 2 inches for remainder of car, except oil pan and exhaust headers.

### **PARACHUTE**

Dual parachutes mandatory. Separate shroud-line mounting points required with 1/2-inch sleeved Grade 8 bolts. Parachute lines must be covered with fire-resistant material. See General Regulations 4:8.

### **ROLL CAGE**

Mandatory. Chassis must be inspected every three years by NHRA and have serialized sticker affixed to roll cage before participation. All chassis must conform to SFI Spec 25.1E. See General Regulations 4:4, 4:11, 10:6.

### **WHEELBASE**

Maximum 110 inches, unless otherwise produced.

## **TIRES & WHEELS: 5**

### **TIRES**

Tires must be specified for racing use by manufacturer. See General Regulations 5:1.

### **WHEELS**

Aftermarket wheels permitted. Automotive-type wire wheels and motorcycle wheels prohibited. Minimum wheel size 13 inches unless car was originally equipped with smaller wheels and is using original engine. See General Regulations 5:2.

## **INTERIOR: 6**

### **SHEET METAL**

Driver-compartment interior must be aluminum, NHRA-accepted carbon fiber, or steel. Magnesium prohibited.

### **UPHOLSTERY**

Nomex upholstery required.

### **WINDOW NET**

Mandatory. See General Regulations 6:3.

**BODY: 7**

**BODY**

Body must be pre-1973 coupe or sedan. All bodies must originate from and resemble a production vehicle; may be altered in height, width, length, contour, etc. Front overhang not to exceed 34 inches forward of the front spindle. Bodies may be carbon fiber, fiberglass, aluminum, or steel. Full trunk line must exist above the rear fenders. Windshield angle must appear stock. Grilles, headlights, and taillights may be painted. Grille must be a replica of stock. Headlight buckets are required. Grille surface and hood droop should resemble stock dimensions. Entries utilizing a pre-1948 body, deduct 75 pounds from minimum weight. Final body approval must be received from NHRA.

**FIREWALL**

Mandatory. See General Regulations 7:4.

**FLOOR**

Mandatory. See General Regulations 7:5.

**SPOILERS**

Aftermarket rear spoiler permitted. Limited to 2,750 square inches. Spoiler may not extend more than 12 inches behind the rearmost body panel and cannot be wider than the car body. Maximum spill-plate height 6 inches; maximum wicker height 2 1/2 inches. Skirting the spoiler into the body prohibited. Adjustment of spoiler during run prohibited.

**WINGS**

Limited to maximum 750 square inches. May not extend more than 12 inches above roof line and 12 inches behind the rearmost body panel.

**WHEELWELLS**

May be enlarged to permit use of larger tires if new wheelwells are constructed to completely cover inside and top 180 degrees of wheel and completely isolate wheels and tires from driver compartment. Rear-wheel tread width may be narrowed.

**WINDSHIELD, WINDOWS**

Front, back, and side windshield may be glass or Lexan. Side windows must close.

**ELECTRICAL: 8**

**BATTERIES**

See General Regulations 8:1, 8:3, 8:4.

**DELAY BOXES/DEVICES/TRACTION CONTROL**

Prohibited. See General Regulations 8:2, 8.8.

**IGNITION**

Limited to single magneto, or distributor, with one coil and one ignition box only. Magneto systems are limited to a single 44-amp maximum output system. Maximum of one spark plug per cylinder. Ignition timing must be preset before the run. Any ignition advance or retard during the run prohibited. Electronic starting-line rpm limiters (two-steps) are prohibited. Ignition system must be verified before competition. See General Regulations 8:1, 8:3, 8:4, 8:5.

**MASTER CUTOFF**

Mandatory on all cars with a battery. See General Regulations 8:4.

**SUPPORT GROUP: 9**

**COMPUTER/DATA RECORDERS**

See General Regulations 9:1, 9:2.

**FIRE EXTINGUISHER SYSTEM**

Fire extinguisher system meeting SFI Spec 17.1 mandatory. Minimum 20-pound NHRA-accepted fire extinguishing system mandatory. System must be divided so that a minimum of 15 pounds is directed into engine compartment by means of nozzled outlets placed in front of each bank of exhaust headers. Remaining 5 pounds or more should be dispersed in driver compartment by means of an atomizing nozzle placed at driver's feet. Must be installed per manufacturer's specifications. Fire-bottle activation cables must be installed inside framerail where cables pass engine/bellhousing area. See General Regulations 9:3 for NHRA-accepted fire extinguishing agents.

**TOW VEHICLES**

Permitted. See General Regulations 9:10.

**WARM-UPS**

See General Regulations 9:4, 9:12.

**DRIVER: 10**

**CREDENTIALS**

Valid NHRA competition license mandatory. See General Regulations 10:4.

**DRIVER**

Driver must be located on left side of vehicle.

**DRIVER RESTRAINT SYSTEM**

Three-inch driver restraint system meeting SFI Spec 16.1 mandatory. Restraint system must be updated at two-year intervals from date of manufacture. See General Regulations 10:5.

**HEAD PROTECTOR**

See General Regulations 10:6.

**HEAD AND NECK RESTRAINT DEVICE/SYSTEM**

At all times that the driver is in the race vehicle, from the ready line until the vehicle is on the return road, driver must properly utilize an SFI-approved head and neck restraint device/system, including connecting the helmet as required for full functionality of the device. The device/system must meet SFI Spec 38.1 and must display a valid SFI label. The head and neck restraint device/system, when connected, must conform to the manufacturer's mounting instructions, and it must be configured, maintained, and used in accordance with the manufacturer's instructions. See General Regulations 10:8.

**HELMET**

Full-face helmet with shield meeting Snell SA2000, SA2005, SA2010, SFI 31.2A, or 31.1/2005 Specs mandatory. See General Regulations 10:7.

**PROTECTIVE CLOTHING**

Jacket and pants or suit meeting SFI Spec 3.2A/15, gloves meeting SFI Spec 3.3/15, and boots or shoes meeting SFI Spec 3.3/15 mandatory. An SFI 3.3 head sock or SFI 3.3 skirted helmet is mandatory on all cars where a neck collar is not used.

## **Section 7**

# ***A/Fuel Eliminator***

### **DESIGNATION**

A/F, preceded by car number.

Reserved for supercharged, methanol-burning and injected nitromethane-burning front-engine dragsters and center-steer altered. Cars are weighed at conclusion of run, including driver. Class limited to 550-cubic-inch maximum. 1,875-pound minimum weight.

### **REQUIREMENTS & SPECIFICATIONS**

#### **ENGINE: 1**

#### **CYLINDER HEADS**

Aftermarket alloy heads permitted.

#### **ENGINE**

Block may be cast or aluminum.

#### **EXHAUST SYSTEM**

Competition exhaust permitted. No collector-style headers allowed. Exhaust must be directed away from driver.

#### **FUEL SYSTEM**

Fuel lines not permitted in driver's compartment. Fuel shutoff operable from the driver's seat mandatory. Fuel tank must be mounted above lower framerail and must be equipped with a positive locking screw-on cap. Minimum temperature of fuel in the staging lanes to the completion of the run and subsequent NHRA fuel check is 50 degrees F. Maximum of one fuel pump, no overdrive. Fuel pump for blown alcohol restricted to a total fuel delivery limited to 7.60 gpm at 4,000 rpm pump speed measured at 100 psi. Fuel pump for injected nitro restricted to a total fuel delivery limited to 11.60 gpm at 4,000 rpm pump speed measured at 100 psi. All competitors must submit their fuel pump(s) to an NHRA-accepted testing facility for certification prior to competition. Pump must be driven 1/2 crankshaft speed. NHRA reserves the right to confiscate fuel pumps or uphold competitor(s) protest request regarding fuel pumps at any time during or after the event for further inspection.

Down nozzles prohibited. Maximum fuel-injector air-inlet opening: 65 square inches measured at butterfly or throttle bodies, excluding cross shaft in fully open position. Fuel-injector hat/scoops must be NHRA-accepted prior to competition. No composite materials (i.e., carbon fiber/Kevlar, graphite, etc.) can be used in injector hat and/or scoop. Hat/scoop must be nostalgic in appearance; internal modifications permitted. Scoops limited to 12 1/2 inches above throttle body as measured from centerline of throttle shaft to top of scoop. The use of electric, pneumatic, or any other automatic way of switching or sequencing of fuel system is prohibited. Fuel system must operate on its own pressure as far as adding or subtracting fuel volume. Manual high-speed fuel system permitted. See General Regulations 1:6.

#### **INJECTOR SCOOP**

Scoop limited to 12 1/5 inches above throttle body as measured from centerline of throttle shaft to top of scoop. Air intake limited to 65 square inches. No composite materials in injector hat and/or scoop. Composite materials include but are not limited to carbon fiber, Kevlar, and weave-graphite fiber.

## **38** ♦ *A/Fuel Eliminator*

### **OIL RETENTION DEVICE**

All vehicles must utilize an SFI Spec 7.1. The lower-engine-ballistic/restraint device must be specific for the oil pan and pump configuration being used and must fit according to the requirements of SFI Spec 7.1 and be used as appropriately designed for the specific application. See General Regulations 1:8.

### **SUPERCHARGER**

Restricted to Roots-type supercharger. Rotor helix angle not to exceed that of standard 71-series GM-type rotor. High-helix rotors prohibited. Maximum size: 6-71, 17.250-inch case length, 15-inch rotor length; maximum rotor diameter: 5.840 inches including fixed stripping. Rotors must be driven from the front; both external drive and internal gearing. Blower setback may not allow any portion of blower to extend behind bellhousing mounting surface on cylinder block. Spacer or components between top of supercharger case and bottom of fuel-injector hat restricted to 2-inch maximum. The case must be one piece with removable front and rear bearing end plates: Rotor must be contained within one-piece case. OEM manufacturer's cast or extruded billet blower case mandatory. No modifications to case as manufactured. Inlet shoes for inlet sizing permitted. Manifold burst panel meeting SFI Spec 23.1, plus restraint system meeting SFI Spec 14.1 mandatory. Maximum supercharger overdrive limit is 70.00 percent. Intercoolers prohibited on supercharged vehicles. Belt guard that protects all fuel, oil, and water lines required. Supercharger must be in a conventional location above the intake manifold and cylinder heads. Manifolds are limited to a maximum manifold height of 8 inches as measured from valley gasket surface to blower mounting surface. Supercharger restraint device may not be modified. See General Regulations 1:10, 1:11.

### **THROTTLE**

Throttle control must be manually operated by driver's foot: Electronics, pneumatics, hydraulics, or any other device may in no way affect the throttle operation. A mechanical device for controlling engine rpm during burnouts may be attached to the injector or throttle linkage but may not be driver-controlled. See General Regulations 1:12.

### **VALVE COVERS**

Cast or fabricated metal valve covers using all attachment bolt holes mandatory. Valve-cover gaskets, O-rings, etc. must be completely bonded/glued to either the valve cover or cylinder-head sealing surface. Vent tube adapters on the valve covers must either be fully welded to the valve covers or incorporate a gasket or O-ring that is bonded/glued to either the adapter or the valve cover. Valve covers must be fastened to the cylinder heads with studs and nuts in lieu of bolts where possible. Spark-plug tubes that penetrate the valve covers must have a restraining device to contain the spark-plug tube in the valve cover in the event the spark plug is discharged.

### **VENT-TUBE BREATHERS**

NHRA-accepted catch-can/vent-tube system mandatory. Twist-on/quick-disconnect fittings between the vent-tube hoses and the valve-cover vent-tube adapters must incorporate a secondary locking device such as a hasp pin, ball lock pin, etc. Tape is not a satisfactory primary or secondary locking device. Double clamps are required on each end of all hoses used in the vent system, including the dry-sump vents. Minimum 1-inch-inside-diameter hoses are required from each valve cover to the catch-can inlets and/or framerails and from each framerail outlet to both catch-can inlets. Minimum catch-can(s) capacity is an 8-quart sump. Catch cans must have adequate internal baffling. Minimum catch-can inlet configuration is one 1-inch-inside-diameter (or equivalent area) tubes. Minimum catch-can outlet/discharge configuration is one 1-inch-inside-diameter openings (or equivalent area). Vent tubes must be unobstructed from the interior of the valve cover to the interior of the catch can; i.e., no orifices, reduced areas, filler materials, etc. Pan/crankcase vacuum systems, of any description, are prohibited. See General Regulations 1:13.

**DRIVETRAIN: 2****CLUTCH, FLYWHEEL, FLYWHEEL SHIELD**

Flywheel and clutch meeting SFI Spec 1.4 and flywheel shield meeting SFI Spec 6.2 mandatory on all cars. Three discs maximum. Maximum depth of flywheel shield: 8 5/8 inches. Clutch must be manually operated by driver's foot: Electronics, pneumatics, hydraulics, or any other device may in no way affect the clutch system. Throwout bearing must release all fingers, levers, stages, etc. simultaneously. Staged or variable release clutches of any description prohibited. See General Regulations 2:3, 2:5, 2:6, 2:8.

**DRIVELINE**

A full cover of minimum .063-inch aluminum must enclose the driveline. Couplers mandatory. See General Regulations 2:1.

**REAR END**

Aftermarket full-floating or live axle assembly mandatory. Rear end must be secured with pinion support. See General Regulations 2:11.

**TRANSMISSION**

Aftermarket planetary or NHRA-accepted aftermarket automatic transmission permitted; limited to maximum two forward speeds and reverse. All transmissions must be equipped with an SFI Spec 4.1 transmission shield. Aftermarket converter drive units permitted. When an NHRA-accepted aftermarket automatic transmission is utilized, an SFI Spec 30.1 flexplate shield and an SFI Spec 29.1 flexplate are mandatory. Aftermarket converter drive units permitted. When an aftermarket converter drive is utilized, an SFI Spec 6.1, 6.2, or 6.3 flywheel shield and an SFI Spec 29.1 flexplate are mandatory. All entries utilizing a converter must be equipped with a neutral safety switch and a reverse lockout. Transmission brake permitted on all converter-equipped entries. Lockup converters and overdrive units are prohibited. A 1-to-1 relationship is mandatory in high gear for all transmission types. Automated shifters and/or timer/rpm-type shifting devices prohibited; each individual shift must be a function of the driver. Shifting must be controlled by manual or pneumatic means only (driver pulls the lever or pushes the button); electric or electronics may in no way affect the shifting mechanism.

**BRAKES & SUSPENSION: 3****BRAKES**

Automated brakes prohibited: Application and release of brakes must be a function of the driver. Dual spots or equivalent oval pucks mandatory; minimum two rear-wheel hydraulic brakes. Hand brake, if used, must be located inside body or driver compartment. Steel brake lines mandatory. Brake lines passing engine or blower drive must be shielded. See General Regulations 3:1.

**STEERING**

Commercially available quick-disconnect steering wheel meeting SFI Spec 42.1 or steering box crossmember mandatory. Use of a pinned steering crossmember in lieu of an SFI quick-disconnect steering wheel prohibited on front-engine cars. A device must be used to prevent a long steering shaft from injuring driver in case of frontal impact. See General Regulations 3:3.

**SUSPENSION**

Front suspension optional. See General Regulations 3:4.

**WHEELIE BARS**

Permitted. Wheels must be nonmetallic. See General Regulations 3:6.

**FRAME: 4****BALLAST**

Permitted. Maximum total ballast (welded or bolted), 250 pounds. See General Regulations 4:2.

**GROUND CLEARANCE**

Minimum 3 inches from front of car to 12 inches behind centerline of front axle, 2 inches for remainder of car, except oil pan.

**PARACHUTE**

Dual parachutes mandatory. Two separate shroud line mounting points mandatory. See General Regulations 4:8.

**ROLL CAGE**

Chassis must meet SFI Spec 10.1E (front-engine, driver in front of rear end) or SFI Spec 2.2B or 2.4B (front-engine, driver behind rear end). Plating of chassis prohibited; painting permitted. Chassis must be inspected yearly by NHRA and have serialized sticker affixed to frame before participation. Roll-cage padding meeting SFI Spec 45.1 mandatory where driver's helmet may come in contact with roll-cage components. Additional padding, mounted on flat stock and fastened to the roll cage on both sides of the driver's helmet, mandatory. Additional padding must be NHRA-accepted, securely mounted using bolts or locking fasteners, and must include a flame-retardant covering. A current list of NHRA-accepted lateral head supports is available on NHRA.com. All wiring must be external of the framerails; routing of cables, hydraulic, or pneumatic lines inside the chassis is permitted. Pressurization of framerails in lieu of air bottles is prohibited.

**WHEELBASE**

Maximum 225 inches.

**TIRES & WHEELS: 5****TIRES**

Tires must be specified for racing use by the manufacturer. Maximum tire width: 15 inches measured across the tread or as specified by the manufacturer.

**WHEELS**

Maximum width: 15 inches. Must be either beadlock design or use of a liner mandatory on non-beadlock wheels.

**INTERIOR: 6****UPHOLSTERY**

Optional. Magnesium seats prohibited.

**BODY: 7****BODY**

Body and cowl must be metal, carbon fiber, or fiberglass. Driver compartment, frame structure, roll bars, and body must be designed to prevent driver's body or limbs from contact with track surface. Subflooring, inside but independent of body, mandatory where driver's legs rest on belly pan or chassis. Front overhang not to exceed 40 inches, measured from centerline of front spindle to forward most point of car. Ground effects of any description prohibited. Ground effects include but are not limited to rocker skirts, belly pans, sheet-metal work under the body that produces a "tunnel" for the passage of air, etc. Maximum overhang limit 40 inches.

## **WINDSCREEN**

Mandatory. See General Regulations 7:7.

## **WINGS/SUPPORTS**

Maximum canard wing restricted to 400 square inches per side. Canards may not extend more than 1 inch outside rear tire. Front wing must be below front tire and may not extend outside of front tires. Total front-wing surface may not exceed 400 square inches. Maximum wicker on canards and wings: 1/2-inch. Canards and front wings, only aero surfaces allowed, except for altered, a wing restricted to 750 square inches is permitted. Adjustment of spoiler during run prohibited.

## **ELECTRICAL: 8**

### **COMPUTERS**

Computers prohibited.

### **DATA RECORDERS**

Data recorders permitted. Cannot perform any function in fuel, clutch, or driver management.

### **IGNITION**

Limited to single magneto, single point box, single crank trigger, single coil ignition only. Magneto system limited to a single 44-amp maximum. All external map or gauge sensors that change timing prohibited. Magneto advance or retard devices must be driver-activated by mechanical, pneumatic, or electronic means; timers permitted. Maximum one spark plug per cylinder. Ignition system must be verified before competition. See General Regulations 8:1, 8:3, 8:4, 8:5.

## **SUPPORT GROUP: 9**

### **FIRE EXTINGUISHER SYSTEM**

Fire extinguisher system meeting SFI Spec 17.1 mandatory. A minimum 20-pound system required with a minimum one nozzle aimed at the driver and one at the front of the engine.

### **TOW VEHICLES**

Permitted. See General Regulations 9:10.

### **WARM-UPS**

See General Regulations 9:4, 9:12.

## **DRIVER: 10**

### **ARM RESTRAINTS**

Mandatory. See General Regulations 10:3.

### **CREDENTIALS**

Valid NHRA competition license mandatory. See General Regulations 10:4.

### **DRIVER RESTRAINT SYSTEM**

Three-inch driver restraint system meeting SFI Spec 16.1 mandatory. All belts must be covered with a fire-resistant covering. Restraint system must be updated at two-year intervals from date of manufacture. See General Regulations 10:5.

### **HELMET**

Full-face helmet with shield meeting Snell SA2000, SA2005, SA2010, SFI 31.2A, or 31.1/2005 Specs mandatory. See General Regulations 10:7.

## **42** ♦ *Nostalgia Funny Car*

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

At all times that the driver is in the race vehicle, from the ready line until the vehicle is on the return road, driver must properly utilize an SFI-approved head and neck restraint device/system, including connecting the helmet as required for full functionality of the device. The device/system must meet SFI Spec 38.1 and must display a valid SFI label. The head and neck restraint device/system, when connected, must conform to the manufacturer's mounting instructions, and it must be configured, maintained, and used in accordance with the manufacturer's instructions.

### **PROTECTIVE CLOTHING**

Driver's suit meeting SFI Spec 3.2A/20, gloves 3.2A/15, boots 3.3/15, and head sock 3.3. All jacket and pants or driver suit that meet the SFI Spec 3.2A/15 or 3.2A/20 must be recertified on a five-year interval. Head sock is not mandatory when helmet is manufactured with a skirt labeled as meeting SFI Spec. 3.3. See General Regulations 10:10.

## ***Section 8*** ***Nostalgia Funny Car***

### **DESIGNATION**

N/FC, preceded by number.

Reserved for pre-1980 American bodies, nitro-burning Funny Cars built specifically for all-out drag racing competition. Minimum weight at conclusion of run: 2,250 pounds, including driver.

These rules are the minimum standards for operation of an Alternative Sanctioning Organization using NHRA member tracks or the standard an NHRA member track must use when booking in this type of exhibition show.

Alternative Sanctioning Organizations must employ at least one silver-certified SFI tech inspector throughout the event. Proper tech inspection and follow-through during the entire event is imperative.

Speeds of 250 mph and/or elapsed times in the 5.90-second range will require a reevaluation of performance restrictions.

True nostalgia cars that do not meet these rules may be certified for exhibition runs only through the NHRA main office on an individual basis.

### **REQUIREMENTS & SPECIFICATIONS**

#### **ENGINE: 1**

### **ENGINE**

Any internal-combustion, American-made OEM-type engine permitted. Maximum cubic inches 500; maximum bore center spacing 4.840 inches, must maintain bore centers +/- .015-inch from stock. Blocks and cylinder heads must retain all physical characteristics of stock-production components. Billet blocks permitted. Any new block design must be submitted to NHRA Technical Services Department for acceptance. Alloy and billet heads allowed. Accepted billet heads and block must remain as manufactured. Machining of billet heads or billet blocks to reduce weight is prohibited. OEM cylinder-head bolt pattern mandatory for all cylinder-head types. Cylinder heads must retain stock OEM-valve angles.

## **LOWER CONTAINMENT**

Engine must be equipped with an SFI Spec 7.1 lower-engine-ballistic/restraint device. In addition, an engine oil-retention pan mandatory; minimum material .050-inch aluminum or .040-inch carbon fiber/Kevlar. Pan must extend from framerail to framerail and extend from the rear motorplate to minimum 1 inch forward of the front face of the lower pulley and must incorporate minimum 4-inch-high vertical folded-up walls on the sides and minimum 2 inches on front and rear. Front and rear walls must be "coved" toward oil pan to assist oil in staying within the confines of the oil-retention pan. Pan must be either a one-piece design or constructed as to be sealed as a retention device to retain oil. Minimum number of slots or holes in the walls to clear frame, steering, or lines permitted. A nonflammable, oil-absorbent liner mandatory inside of retention device.

## **EXHAUST SYSTEM**

Double-pipe insulated exhaust headers mandatory. Double tube must extend to start of bend at bottom of body.

## **FUEL**

Nitromethane and methanol permitted. All other fuels prohibited.

## **FUEL SYSTEM**

Single fuel pump mandatory. Fuel pump must be NHRA accepted. NHRA-accepted fuel pumps: Enderle 1200, 1270, and 1380, Settles Nitro Gerotor, Waterman 320950N or 320950, and Rage Racing 1400N-FC. All new fuel pumps must be submitted to NHRA for acceptance. Fuel pumps must retain as-manufactured gear or rotor outside diameter, depth, and tooth/lobe count. Fuel pumps with a second outlet must have one of the outlets capped or routed back to the fuel tank or return system. Fuel pump restricted to a total fuel delivery limited to 21.0 gpm at 4,000 rpm pump speed measured through a 0.300-inch orifice. All competitors must submit their fuel pump(s) to an NHRA-accepted testing facility for certification prior to competition. Pump must be driven 1/2 crankshaft speed. NHRA reserves the right to confiscate fuel pumps or uphold competitor(s) protest request regarding fuel pumps at any time during or after the event for further inspection.

Fuel tank and fuel lines must be within the confines of the frame and be protected from coming in contact with the track surface. Fuel lines in the driver's compartment prohibited except for a fuel-pressure gauge; lines must be steel or steel-braided with steel fittings. All flexible fuel-pressure lines, with the exception of the hat nozzle lines, must be pressure-tested and labeled. All testing must be hydrostatic for minimum 30 seconds at 750psi. Label must indicate date, PSI, and tester ID. Labeling must be impervious to nitromethane and brake clean. Must have fuel shutoff operable from the driver's seat. Fuel tank must be equipped with a positive locking screw-on cap.

Maximum number of nozzles 24 (maximum 8 in injector hat, 16 in manifold). Y-nozzles may be used in lieu of individual nozzles in the manifold; limited to 16 nozzle jets. Down nozzles prohibited. Maximum fuel injector air inlet opening: 45 square inches measured at butterfly or throttle bodies, excluding cross shaft in fully open position. Fuel injector hat/scoops must be NHRA accepted prior to competition. No composite materials (i.e., carbon fiber/Kevlar, graphite, etc.) can be used in injector hat and/or scoop. Hat/scoop must be nostalgic in appearance, internal modifications allowed. Scoops limited to 12 1/2 inches above throttle body as measured from centerline of throttle shaft to top of scoop. The use of electric, pneumatic, or any other automatic way of switching or sequencing of fuel system is prohibited. Fuel system must operate on its own pressure as far as adding or subtracting fuel volume. Manual high-speed fuel system allowed. See General Regulations 1:6.

## **NITROUS OXIDE**

Prohibited.

## **44** ♦ *Nostalgia Funny Car*

### **OIL LINES**

All flexible-pressure oil lines, excluding return lines and any line 30psi or lower in pressure, must be pressure-tested and labeled. All testing must be hydrostatic for minimum 30 seconds at 750psi. Label must indicate date, PSI, and tester ID. Labeling must be impervious to nitromethane and brake clean. Otherwise hard line mandatory.

### **SUPERCHARGER**

Restricted to Roots-type supercharger; rotor helix angle not to exceed that of standard 71-series GM-type rotor. High-helix prohibited. OEM manufacturer's cast or extruded billet blower case mandatory. Limited to a single, Roots-type 6.71 blower. Specification limits: 15-inch rotor length, 18.250-inch case length, and 5.840-inch rotor cavity diameter. Rotors must be driven from the front; both external drive and internal gearing. Rotor helix angle limited to standard 71 series GM-type rotor (60 degrees). Maximum overdrive: 18.99 percent. Blower setback may not allow any portion of blower to extend behind bellhousing mounting surface on cylinder block. Spacer or components between top of supercharger case and bottom of fuel injector hat restricted to 2-inch maximum. Supercharger restraint system meeting SFI Spec 14.3 mandatory. Aluminum studs required. Manifold burst panel meeting SFI Spec 23.1 mandatory. Manifolds are limited to a maximum manifold height of 8 inches as measured from valley gasket surface to blower mounting surface. Supercharger belt guard mandatory. Fuel and/or oil lines must be shielded wherever they pass the supercharger drive belt. Either a belt guard or fuel/oil line guard permitted. Turbochargers, screw-type superchargers, and centrifugal-type superchargers prohibited. See General Regulations 1:10, 1:11.

### **THROTTLE**

Throttle control must be manually operated by driver's foot; electronics, pneumatics, hydraulics, or any other device may in no way affect the throttle operation. Throttle must incorporate a positive-action return system. See General Regulations 1:12.

### **VALVE COVERS**

Cast or fabricated metal valve covers using all attachment bolts mandatory. Carbon fiber/composite valve covers prohibited.

### **VENT-TUBE BREATHERS**

Vent tubes must be double clamped at each connection. Minimum diameter, 1 1/4 inches for all breather tubes. All quick connections in the system must have a secondary locking system (tape, wire ties, etc. not allowed). Minimum catch-can(s) capacity is an 8-quart sump. Catch can(s) must have adequate internal baffling to prevent oil from being deposited on racing surface. NHRA-accepted vent tubes/hoses are mandatory for all connections; see NHRA.com for a list of accepted vent tubes/hoses. See General Regulations 1:13.

## **DRIVETRAIN: 2**

### **CLUTCH, FLYWHEEL, FLYWHEEL SHIELD**

Flywheel and clutch meeting SFI Spec 1.3 or 1.4 and flywheel shield meeting SFI Spec 6.2 mandatory. Clutch management system prohibited. Maximum number of discs three, maximum number of fingers six. Release of clutch must be the result of a manual operation by the driver's foot. No staged systems allowed.

### **DRIVELINE COVER**

Driveline must be covered in .024-inch steel or .0625-inch aluminum 360-degree full cover. Couplers mandatory. Rear cover must surround the coupler. Front cover must surround the driveshaft from the back of the reverser to the end of the splicer sleeve in the area of the driver's leg. All covers must be securely mounted to frame, either by a suitable crossmember or third member.

## **REAR END**

Rear-end gear ratio minimum (numeric) 3.90:1. Aftermarket full-floating or live axle assembly mandatory. See General Regulations 2:11.

## **TRANSMISSION**

Two-speed transmission and reverser required. Transmission must be planetary-type design. OEM or Powerglide-type units prohibited. A ballistic shield covering all units mandatory; must meet SFI Spec 4.1. See General Regulations 2:13, 9:7.

## **BRAKES & SUSPENSION: 3**

### **BRAKES**

Four-wheel hydraulic brakes mandatory. Application and release of brakes must be a function of the driver; electronics, pneumatics, or any other device may in no way affect or assist brake operation. Hand brake, if used, must be located inside body or driver compartment. Carbon-fiber brake rotors used in conjunction with carbon-fiber specific brake pads mandatory on rear (mandatory on front beginning Jan. 1, 2012); all other materials prohibited. Steel brake lines mandatory. NHRA-accepted fireproof brake-line covering mandatory on all (front and rear) flexible connection lines; see NHRA.com for a list of accepted manufacturers. See General Regulations 3:14.

### **STEERING**

Conventional automotive-type rod ends must be a minimum of 3/8-inch shank diameter and must be installed with washers to prevent bearing pullout. Removable steering wheel, if used, must meet SFI Spec 42.1.

## **FRAME: 4**

### **BALLAST**

Permitted. Must be secured with minimum of two 3/8-inch, Grade 8 fasteners, per 100 pounds.

### **GROUND CLEARANCE**

Minimum 3 inches from front of car to 12 inches behind centerline of axle; 2 inches for the remainder of the car, except oil pan and headers.

### **PARACHUTE**

Dual parachutes mandatory. Two separate shroud-line mounting points mandatory with sleeved 1/2-inch-minimum Grade 8 steel bolts with self-locking nuts or with nuts welded onto parachute brackets. Shroud-line mounting brackets must be constructed of minimum 3/16-inch 4130 steel. Fire-resistant protective covers must be on all parachute packs and unpacked shroud lines. See General Regulations 4:8.

### **ROLL CAGE**

Chassis must have manufacturer's name, serial number, and date of manufacture. Chassis must meet SFI Spec 10.1E. Plating of chassis prohibited; painting permitted. Chassis must be inspected yearly by NHRA and have serialized sticker affixed to frame before participation. Roll-cage padding meeting SFI Spec 45.1 mandatory where driver's helmet may come in contact with roll-cage components. Additional padding, mounted on flat stock and fastened to the roll cage on both sides of the driver's helmet, mandatory. Additional padding must be NHRA-accepted, securely mounted using bolts or locking fasteners, and must include a flame-retardant covering. A current list of NHRA-accepted lateral head supports is available on NHRA.com. Pressurization of framerails in lieu of air bottles is prohibited.

### **SUSPENSION**

Rigid rear suspension mandatory. Front suspension optional.

## **46** ♦ *Nostalgia Funny Car*

### **WHEELBASE**

Minimum: 118 inches; maximum: 125 inches, measured on long side. Maximum wheelbase variation from left to right: 2 inches.

## **TIRES & WHEELS: 5**

### **TIRES**

Race-only spec tires on front mandatory. Size of rear tires limited to 34.6-inch diameter x 17-inch wide.

### **WHEELS**

Must be either beadlock design or use of a liner mandatory on non-beadlock wheels.

## **INTERIOR: 6**

### **SHEET METAL**

Driver-compartment interior, firewall, seat, etc. must be aluminum or steel. Magnesium or carbon fiber prohibited.

### **UPHOLSTERY**

Seats must be foamed with energy-absorbing material and formed to the driver's body. Minimum one-layer, flame-retardant-material mandatory as seat upholstery.

## **BODY: 7**

### **BODY**

Limited to 1965 to 1979 American-made bodies. Bodies must resemble the original mass-produced make and model. Corvette roadster and Jeep bodies permitted. Bodies may be made of fiberglass or composite material. Body must lift off as a one-piece unit. Minimum body width is 60 inches, measured at the centerline of the front and rear axle. Maximum lowering of roof height: 2 inches. Front fender bubbles allowed, maximum 2 1/2 inches. The body may be shortened or lengthened a maximum of 15 percent of original dimensions. Opening for blower hat must have a minimum 2.500-inch clearance between body and throttle linkage. Injector box in windshield cannot exceed 50 percent of windshield height. Any modifications to body not described are prohibited. Side windows prohibited. Exception: Vent windows permitted, may not extend 2 inches rearward where the A-pillar meets the roof line. Window must be perpendicular to the bottom of the side window frame. Body (hood) burst panel, minimum 288 square inches, mandatory. Body burst panel must be secured with plastic screws and two 1/8-inch stainless-steel wires, with body pad bolted with plate on both sides of panel. Fireproof body undercoat required, with manufacturer's sticker required on the body.

### **ESCAPE HATCH**

A working escape hatch must be installed in top of body to permit easy driver exit; see-through types prohibited. Minimum size, 18 inches x 17 inches. Roof hatch must be permanently attached and hinged at front. Must have release mechanism, operable from both inside and outside of car.

### **FIREWALL & FLOORS**

Must be constructed of .032-inch aluminum or .024-inch steel. Firewall must completely seal driver from engine compartment per specification for Section 15 Funny Car of the NHRA Rulebook. Magnesium prohibited.

### **SPOILER**

Rear spoiler limited to roof height and body width (modern-type spoilers or spill plates prohibited). Spill plates may not extend forward of the bottom of the rear window or extend past the trailing edge of the rear deck lid. Spill plates cannot be above the roof

line. Front spoiler limited to overall overhang measurement of 40 inches, measured from the centerline of the forwardmost front spindle. The front and rear spoilers are the only aerodynamic devices permitted; any other wings, spoilers, or canards prohibited.

## **ELECTRICAL: 8**

### **COMPUTERS**

Computers prohibited.

### **DATA RECORDERS**

Data recorders permitted. Cannot perform any function in fuel, clutch, or driver management.

### **IGNITION**

Mag limited to point-type only (no electronic mags or mag amp boxes allowed). Timing retard must be a function of the driver by mechanical or pneumatic means only. A positive ignition shutoff within the reach of the driver is mandatory.

## **SUPPORT GROUP: 9**

### **FIRE SYSTEM**

Fire extinguishing system must meet SFI Spec 17.1. Minimum 20-pound or more fire extinguishing system mandatory. System must be divided so that a minimum of 15 pounds is directed into engine compartment by means of nozzled outlets placed in front of each bank of exhaust headers. Remaining 5 pounds or more should be dispersed in driver compartment by means of an atomizing nozzle placed at driver's feet. Must be installed per manufacturer's specifications. Fire-bottle activation cables must be installed inside framerail where cable passes engine/bellhousing area. Carbon-fiber bottles prohibited. See General Regulations 9:3.

### **JACKS AND JACK STANDS**

No work may be done under any car in the pits while supported by a jack. No car may be fired while on a jack. Jack stands are required while work is performed or while car is being warmed up; a licensed driver must be in the seat anytime the motor is being run. Jack-stand devices must provide a minimum ground clearance of 7 inches from bottom of rear tire to ground while car is running.

### **SHUTOFF DEVICE**

Properly installed and operational Electrimotion Nostalgia Shutoff Controller Kit (part number SB003) mandatory. The Electrimotion Nostalgia Shutoff Controller Kit must be installed per manufacturer's instructions. Modification of or tampering with the Electrimotion Nostalgia Shutoff Controller Kit is prohibited.

### **WARM-UPS**

When starting vehicle in the pit area, vehicle must be fully within the confines of the assigned space. No part of the car may extend past the trailer. See General Regulations 9:4, 8:12.

## **DRIVER: 10**

### **ARM RESTRAINTS**

Mandatory. See General Regulations 10:3.

### **CREDENTIALS**

Valid Nostalgia Funny Car or equivalent license mandatory. See General Regulations 10:4.

## **48** ♦ *Nostalgia Top Fuel*

### **DRIVER RESTRAINT SYSTEM**

Minimum 6-point, 3-inch driver restraint system meeting SFI Spec 16.1 mandatory. All belts and mounting points must be covered with a fire-resistant material. Restraint system must be updated at two-year intervals from date of manufacture. See General Regulations 10:5.

### **HELMET**

Full-face helmet with shield meeting Snell SA2000, SA2005 or SFI 31.2A, or 31.1/2005 Specs mandatory. Helmet must meet applicable SFI and/or Snell specs with fresh air system installed. Compressed air only. Air can be supplied on demand or by constant pressure. See General Regulations 10:7.

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

At all times that the driver is in the race vehicle, from the ready line until the vehicle is on the return road, driver must properly utilize an SFI-approved head and neck restraint device/system, including connecting the helmet as required for full functionality of the device. The device/system must meet SFI Spec 38.1 and must display a valid SFI label. The head and neck restraint device/system, when connected, must conform to the manufacturer's mounting instructions, and it must be configured, maintained, and used in accordance with the manufacturer's instructions.

### **PROTECTIVE CLOTHING**

Driver's suit meeting SFI Spec 3.2A/20, gloves 3.2A/20 boots 3.2A/20 and head sock 3.3 mandatory. All jacket and pants or driver suits that meet SFI Spec 3.2A/20 must be recertified on a five-year interval. A head sock is not mandatory when helmet is manufactured with a skirt labeled as meeting SFI Spec. 3.3. See General Regulations 10:10.

## ***Section 9*** ***Nostalgia Top Fuel***

### **DESIGNATION**

N/TF, preceded by number.

Reserved for front-engine supercharged, nitro-burning dragsters built specifically for all-out drag racing competition.

These rules are the minimum standards for operation of an Alternative Sanctioning Organization using NHRA member tracks or the standard an NHRA member track must use when booking in this type of exhibition show.

Alternative Sanctioning Organizations must employ at least one silver-certified SFI tech inspector throughout the event. Proper tech inspection and follow-through during the entire event is imperative. Speeds of 260 mph and/or elapsed times in the mid-five-second range will require a reevaluation of performance restrictions.

True nostalgia cars that do not meet these rules may be certified for exhibition runs only through the NHRA main office on an individual basis.

## **REQUIREMENTS & SPECIFICATIONS**

### **ENGINE: 1**

#### **ENGINE**

Any internal-combustion, American-made OEM-type engine permitted. Maximum cubic inches 470; Minimum weight per cubic inch 4.60; maximum bore center spacing

4.840 inches, must maintain bore centers +/- .015-inch from stock. Blocks and cylinder heads must retain all physical characteristics of stock-production components. Billet blocks permitted. Any new block design must be submitted to NHRA Technical Services Department for acceptance. Machining of billet blocks to reduce weight is prohibited. Alloy and billet heads permitted. Accepted billet heads and block must remain as manufactured. OEM cylinder-head bolt pattern mandatory for all cylinder-head types. Cylinder heads must retain stock OEM-valve angles.

### **LOWER CONTAINMENT**

Engine must be equipped with an SFI Spec 7.1 lower-engine-ballistic/restraint device. In addition, an engine oil-retention pan mandatory; minimum material .050-inch aluminum or .040-inch carbon fiber/Kevlar. Pan must extend from framerail to framerail and extend from the rear motorplate to minimum 1 inch forward of the front face of the lower pulley and must incorporate minimum 4-inch-high vertical folded-up walls on sides and minimum 2 inches on front and rear. Front and rear walls must be "coved" toward oil pan to assist oil in staying within the confines of the oil-retention pan. Pan must be either a one-piece design or constructed as to be sealed as a retention device to retain oil. Minimum number of slots or holes in the walls to clear frame, steering, or lines permitted. A nonflammable, oil-absorbent liner mandatory inside of retention device.

### **EXHAUST SYSTEM**

Exhaust must be directed away from driver.

### **FUEL**

Nitromethane and methanol permitted. All other fuels prohibited.

### **FUEL SYSTEM**

Single fuel pump mandatory. Fuel pump must be NHRA accepted. NHRA-accepted fuel pumps: Enderle 1100, Hilborn -4, Settles Nostalgia Gerotor, Waterman 320950N, and Rage Racing 1400N. All new fuel pumps must be submitted to NHRA for acceptance. Fuel pumps must retain as-manufactured gear or rotor outside diameter, depth, and tooth/lobe count. Fuel pumps with a second outlet must have one of the outlets capped or routed back to the fuel tank or return system. Fuel pump restricted to a total fuel delivery limited to 20.0 gpm at 4,000 rpm pump speed measured through a 0.300-inch orifice. All competitors must submit their fuel pump(s) to an NHRA-accepted testing facility for certification prior to competition. Pump must be driven at 1/2 crankshaft speed. NHRA reserves the right to confiscate fuel pumps or uphold competitor protest request regarding fuel pumps at any time during or after the event for further inspection.

No electronic, pneumatic, or hydraulic controls of fuel system. Fuel-system changes must be a function of the driver by mechanical means only. One action by the driver can only result in one function, one time, other than fuel pressure operated check valves (i.e., you may not incorporate a system through a driver-activated switch or lever, or a wide-open throttle switch, that starts a series of events). Fuel shutoff must be operable from the driver's seat.

No pressurized fuel tanks. Fuel tanks must be mounted above the lower framerail. Fuel tank and fuel lines must be within the confines of the frame and be protected from coming in contact with the track surface. Fuel tank must have a positive locking screw-on cap. Fuel line must be isolated from driver's compartment. Fuel-gauge lines in the driver's compartment must be steel-braided with steel fittings. All flexible fuel-pressure lines, with the exception of the hat nozzle lines, must be pressure-tested and labeled. All testing must be hydrostatic for minimum 30 seconds at 750psi. Label must indicate date, PSI, and tester ID. Labeling must be impervious to nitromethane and brake clean.

## **50** ♦ *Nostalgia Top Fuel*

Maximum number of nozzles 16 (8 in injector hat, 8 in manifold). Y-style nozzles are allowed (i.e., two lines coming together before one nozzle enters the manifold). No down nozzles allowed. Maximum fuel injector air inlet opening: 65 square inches measured at butterfly or throttle bodies, excluding cross shaft in fully open position. Fuel injector hat/scoops must be NHRA accepted prior to competition. No composite materials (i.e., carbon fiber/Kevlar, graphite, etc.) can be used in injector hat and/or scoop. Internal modifications to scoop or hat allowed. See General Regulations 1:6.

### **OIL LINES**

All flexible-pressure oil lines, excluding return lines and any line 30psi or lower in pressure, must be pressure-tested and labeled. All testing must be hydrostatic for minimum 30 seconds at 750psi. Label must indicate date, PSI, and tester ID. Labeling must be impervious to nitromethane and brake clean. Otherwise hard line mandatory.

### **SUPERCHARGER**

Restricted to Roots-type supercharger; rotor helix angle not to exceed that of standard 71-series GM-type rotor. High-helix prohibited. OEM manufacturer's cast or extruded billet blower case mandatory. Maximum size: 6-71, 18.250-inch case length. Maximum rotor length: 15 inches. Maximum rotor cavity diameter: 5.840 inches. Maximum overdrive: 14.99 percent. Rotors must be driven from the front; both external drive and internal gearing. Blower setback may not allow any portion of blower to extend behind bellhousing mounting surface on cylinder block. Spacer or components between top of supercharger case and bottom of fuel injector hat restricted to 2-inch maximum. Supercharger restraint system meeting SFI Spec 14.3 mandatory. Aluminum studs required. Manifold burst panel meeting SFI Spec 23.1 mandatory. Manifolds are limited to a maximum manifold height of 8 inches as measured from valley gasket surface to blower mounting surface. Supercharger belt guard mandatory. Fuel and/or oil lines must be shielded wherever they pass the supercharger drive belt. Either a belt guard or fuel/oil line guard permitted. Turbochargers, screw-type superchargers, and centrifugal-type superchargers prohibited. See General Regulations 1:11.

### **THROTTLE**

Throttle control must be manually operated by driver's foot; electronics, pneumatics, hydraulics, or any other device may in no way affect the throttle operation. Throttle must incorporate a positive-action return system. See General Regulations 1:12.

### **VALVE COVERS**

Cast or fabricated metal valve covers using all attachment bolts mandatory. Carbon fiber/composite valve covers prohibited. Must be NHRA-accepted.

### **VENT-TUBE BREATHERS**

Vent tubes must be double clamped at each connection. Minimum diameter, 1 1/4 inches for all breather tubes. All quick connections in the system must have a secondary locking system (tape, wire ties, etc. not allowed). Minimum catch-can(s) capacity is an 8-quart sump. Catch can(s) must have adequate internal baffling to prevent oil from being deposited on racing surface. NHRA-accepted vent tubes/hoses are mandatory for all connections; see NHRA.com for a list of accepted vent tubes/hoses. See General Regulations 1:13.

## **DRIVETRAIN: 2**

### **CLUTCH, FLYWHEEL, FLYWHEEL SHIELD**

Flywheel and clutch meeting SFI Spec 1.3 or 1.4 and flywheel shield meeting SFI Spec 6.2 mandatory. Clutch management system prohibited. Maximum number of discs, three. Release of clutch must be the result of a manual operation by the driver's foot. No staged systems allowed. See General Regulations 2:3, 2:5, 2:6, 2:7.

## **DRIVELINE COVER**

Driveline must be covered in .0625-inch steel or aluminum 360-degree full cover. Couplers mandatory. All covers must be securely mounted to frame, either by a suitable crossmember or third member. See General Regulations 2:1.

## **REAR END**

Rear-end gear ratio limited to 3.90:1 (ratio numerically lower than 3.90:1; prohibited). Aftermarket full-floating or live axle assembly mandatory. See General Regulations 2:11.

## **TRANSMISSION**

Direct drive only. Transmission prohibited. Reverser mandatory. See General Regulations 9:7.

## **REVERSER SHIELD**

A one-piece ballistic shield covering all units mandatory. Must meet SFI Spec 4.1. See General Regulations 2:13.

# **BRAKES & SUSPENSION: 3**

## **BRAKES**

Dual piston hydraulic rear wheel brakes mandatory. Application and release of brakes must be a function of the driver; electronics, pneumatics, or any other device may in no way affect or assist brake operation. Hand brake, if used, must be located inside body or driver compartment. Carbon-fiber brake rotors used in conjunction with carbon-fiber specific brake pads mandatory; all other materials prohibited. Steel brake lines mandatory. NHRA-accepted fireproof brake-line covering mandatory on all flexible connection lines; see NHRA.com for a list of accepted manufacturers. See General Regulations 3:11.

## **STEERING**

Conventional automotive-type rod ends must be a minimum of 3/8-inch shank diameter and must be installed with washers to prevent bearing pullout. Removable steering wheel, if used, must meet SFI Spec 42.1. See General Regulations 3:3.

# **FRAME: 4**

## **BALLAST**

Permitted. Must be secured with minimum of two 3/8-inch, Grade 8 fasteners, per 100 pounds. See General Regulations 4:2.

## **GROUND CLEARANCE**

Minimum 3 inches from front of car to 12 inches behind centerline of front axle; 2 inches for the remainder of the car, except oil pan and headers.

## **PARACHUTE**

Dual parachutes mandatory. Two separate shroud-line mounting points mandatory with sleeved 1/2-inch-minimum Grade 8 steel bolts with self-locking nuts or with nuts welded onto parachute brackets. Shroud-line mounting brackets must be constructed of minimum 3/16-inch 4130 steel. Fire-resistant protective covers must be on all parachute packs and unpacked shroud lines. See General Regulations 4:8.

## **ROLL CAGE**

Chassis must have manufacturer's name, serial number, and date of manufacture. Chassis must meet SFI Spec 2.2B (front-engine cars). Effective Jan. 1, 2011, chassis must meet SFI Spec 2.2C. Current certification will be accepted until they expire. Plating of chassis prohibited; painting permitted. Chassis must be inspected yearly by NHRA and have serialized sticker affixed to frame before participation. Roll-cage padding meeting SFI Spec 45.1 mandatory where driver's helmet may come in contact with roll-cage components. Additional padding, mounted on flat stock and fastened to the roll cage on both sides of the

## **52** ♦ *Nostalgia Top Fuel*

driver's helmet, mandatory. Additional padding must be NHRA-accepted, securely mounted using bolts or locking fasteners, and must include a flame-retardant covering. A current list of NHRA-accepted lateral head supports is available on NHRA.com. Pressurization of framerails in lieu of air bottles is prohibited.

### **SUSPENSION**

Rigid rear suspension mandatory. Front suspension optional.

### **WHEELBASE**

Minimum: 150 inches. Maximum: 225 inches on long side. Maximum wheelbase variation from left to right: 2 inches.

## **TIRES & WHEELS: 5**

### **TIRES**

M&H and Hoosier Nostalgia Spec tires only. Race-only spec tires on front mandatory.

### **WHEELS**

Minimum width: 10 inches. Maximum width: 12 inches, or as determined by spec tire requirements. Must be either beadlock design or use of a liner mandatory on non-beadlock wheels.

## **INTERIOR: 6**

### **SHEET METAL**

All sheet metal within the driver compartment must be aluminum or steel. Magnesium prohibited.

### **UPHOLSTERY**

Seats must be foamed with energy-absorbing material and formed to the driver's body. Minimum one-layer, flame-retardant material mandatory as seat upholstery.

## **BODY: 7**

### **AIRFOILS**

Side-mounted canard-type units permitted, securely mounted below the headers and in front of rear tires. Front wing permitted. Maximum canard wing surface 450 square inches per side. Canards may not extend more than 2 inches outside rear tire.

Front wing must be no higher than top of front tires and may not extend outside of front tires. In addition, total front wing surface must not exceed 500 square inches. Maximum wicker on canards and front wings .500-inch. Canards and front wings only aerodynamic surfaces allowed. Any disguised surfaces prohibited. Maximum overhang limited to 30 inches, measured from the centerline of the forwardmost front spindle.

### **BODY**

Body and cowl must be metal, fiberglass, or carbon fiber/Kevlar. Driver compartment, frame structure, roll bars, and body must be designed to prevent driver's body or limbs from contacting track surface.

### **MOTORPLATE**

Must be constructed of .250-inch aluminum or steel. Firewall must completely seal driver from engine. Magnesium prohibited.

## **ELECTRICAL: 8**

### **IGNITION**

Limited to a single magneto with one coil and one spark box. Magneto limit: MSD 44 amp. No chips or computer-type ignition allowed. Timing retard or advance changes

must be a function of the driver by mechanical means only. No electronic, pneumatic, or hydraulic timing change devices allowed. One action by the driver can only result in one function, one time (i.e., you may not incorporate a system through which a driver-activated switch or lever, or a wide-open throttle switch, starts a series of events).

## **SUPPORT GROUP: 9**

### **DATA RECORDERS**

Data recorders allowed but only for the purpose of gathering data; they can perform no function of engine, clutch, ignition, or fuel-system control. See General Regulations 9:1, 9:2.

### **FIRE EXTINGUISHER SYSTEM**

Fire extinguisher system meeting SFI Spec 17.1 mandatory. Minimum 20-pound or more NHRA-accepted fire extinguishing system mandatory. Activation cables must be protected in bellhousing and engine area. Activation cables and distribution tubing must be steel. Must be installed per manufacturer's specifications. Carbon-fiber bottles prohibited. See General Regulations 9:3.

### **AIR BOTTLES**

No compressed air or similar devices allowed on car (except for use with a parachute only).

### **JACKS AND JACK STANDS**

No work may be done under any car in the pits while supported by a jack. No car may be fired while on a jack. Jack stands are required while work is performed or while car is being warmed up. A licensed driver must be in the seat anytime the engine is running. Jack-stand devices must provide a minimum ground clearance of 7 inches from bottom of rear tire to ground while car is running.

### **PUSH STARTS**

Prohibited.

### **SHUTOFF DEVICE**

Properly installed and operational Electrimotion Nostalgia Shutoff Controller Kit (part number SB003 mandatory. The Electrimotion Nostalgia Shutoff Controller Kit must be installed per manufacturer's instructions. Modification of or tampering with the Electrimotion Nostalgia Shutoff Controller Kit is prohibited.

### **WARM-UPS**

When starting a vehicle in the pit area, vehicle must be fully within the assigned space. No part of the rear tire may extend past the trailer. When occupying an end-spot pit space or if the neighboring trailer does not completely shield vehicle, it is mandatory to park a tow truck/car alongside the vehicle while the engine is running. See General Regulations 9:4, 9:12.

## **DRIVER: 10**

### **ARM RESTRAINTS**

Mandatory. See General Regulations 10:3.

### **CREDENTIALS**

Valid Nostalgia Top Fuel or equivalent license mandatory. See General Regulations 10:4.

### **DRIVER RESTRAINT SYSTEM**

Minimum 6-point, 3-inch driver restraint system meeting SFI Spec 16.1 mandatory. All belts and mounting points must be covered with a fire-resistant material. Restraint system must be updated at two-year intervals from date of manufacture.

## **54** ♦ *Authentic Historic Vehicle*

### **HELMET**

Full-face helmet meeting Snell SA2000, SA2005 or 31.2A mandatory with shield. See General Regulations 10:7.

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

At all times that the driver is in the race vehicle, from the ready line until the vehicle is on the return road, driver must properly utilize an SFI-approved head and neck restraint device/system, including connecting the helmet as required for full functionality of the device. The device/system must meet SFI Spec 38.1 and must display a valid SFI label. The head and neck restraint device/system, when connected, must conform to the manufacturer's mounting instructions, and it must be configured, maintained, and used in accordance with the manufacturer's instructions.

### **PROTECTIVE CLOTHING**

Driver's suit meeting SFI Spec 3.2A/20, gloves 3.2A/20 boots 3.2A/20 and head sock 3.3 mandatory. All jacket and pants or driver suits that meet SFI Spec 3.2A/20 must be recertified on a five-year interval. A head sock is not mandatory when helmet is manufactured with a skirt labeled as meeting SFI Spec. 3.3. See General Regulations 10:10.

## ***Section 10*** ***Authentic Historic Vehicle***

The requirements for the inclusion of an authentic historic drag race vehicle or replica in this program are as follows:

The owner must submit to the NHRA Exhibition Committee an application that includes a full description of the vehicle to include, but not limited to:

- Chassis drawings
- Tubing sizes and tubing placement
- Photographs (front, rear, side, and three-quarter-side views)
- All safety equipment and shutoffs
- Fuel type
- Proposed speed and elapsed time limits
- Engine details
- Supercharger
- Rear end
- Brake system
- Parachute
- Tires and wheels
- Driver safety equipment

A special Selection Committee shall be established to consider applications for inclusion in this program. The Selection Committee shall comprise:

- Vice President-The Wally Parks NHRA Motorsports Museum
- Curator-The Wally Parks NHRA Motorsports Museum
- National Technical Director
- Nostalgia Technical Advisors

This Committee shall be chaired by the Vice President-The Wally Parks NHRA Motorsports Museum.

Authentic historic vehicles and replicas should meet the following requirements to be considered for inclusion in this program:

All chassis and/or frames must be original or suitable replica. The amount of repair and/or restoration allowed shall be determined by the committee. Only one active replica of an original true historic vehicle may be included in this program.

Vehicles should represent recognized participants from a significant era of organized drag racing history.

Vehicles accepted for inclusion in this program will be assigned to one of the following categories:

**Category I:** Display and engine starts only. May not make runs of any kind. No licensing required for this category.

**Category II:** May perform burnouts only.

**Category III:** May make full-throttle runs to the eighth-mile only.

Licensing procedures required for Category III only.

The primary objective of this program is the preservation and active presentation of authentic historic vehicles and replicas that would by upgrade to current NHRA rules be altered to the point of loss of identity, recognition, and/or historic value.

Each vehicle to be considered for inclusion in this program must be inspected for adherence to its requirements by a person appointed by the Selection Committee, who shall report his or her findings. These findings will then be provided to the Selection Committee members for their consideration.

Authentic historic vehicles will be evaluated on an individual basis and will be assigned by the Selection Committee to one of the categories of participation listed previously. Vehicles must then be certified by an SFI-certified chassis inspector who will be designated by the Selection Committee.

Vehicle and driver will be licensed as a combination. Chassis must be inspected, certified, and tagged every three years. The fee for this inspection and certification will be \$200.00.

Applicants should contact the NHRA Technical Services Department for license forms and further information.

## ***Section 11***

# ***Cacklefest Vehicle***

Prior to any engine starts at major Cacklefest events, including National and California Hot Rod Reunions, all participating vehicles must have complied with a pre-event inspection. Inspections will be conducted by experienced NHRA accepted personnel.

Proper Waivers and Releases must be signed prior to any engine starts – both static and push start.

### **GENERAL**

All vehicles must be in good working order, with all components in proper mechanical condition including frame construction, brakes, steering, wheels and tires, etc.

### **IGNITION/MAGNETO**

Must have functional, positive action, ON/OFF switch located in driver's compartment capable of de-energizing the entire ignition system. Driver must be able to easily access and operate ignition switch when seated in normal driving position, with all belts secured. "Momentary contact" switch prohibited.

Magneto switch is to be used to shut off engine if fuel shutoff does not function properly.

## **56** ♦ *Cacklefest Vehicle*

### **THROTTLE/LINKAGE**

Each vehicle must have a foot throttle incorporating a positive-acting return spring attached directly to the carburetor/injector throttle arm. A positive stop or override prevention must be used to keep linkage from passing over center and sticking in an open position. System must be free of binding.

### **FUEL SHUTOFF/CABLE**

Each vehicle must be equipped with a fully functional, quick-action, fuel-shutoff valve. Valve must be positioned at the outlet/pressure side of fuel pump. Valve must be controlled with positive-action device/cable where driver has full ON/OFF control.

Driver must be able to easily access and operate fuel shut off system when seated in normal driving position, with all belts secured.

### **CLUTCH/LINKAGE**

All vehicles must be equipped with automotive-type clutch using single or multiple disks. Fully centrifugal type clutches (Crower Glide, etc.) prohibited\*\*. Use of supplemental counterweights prohibited. Spring pressure is not to exceed normal operation requirement to start engine. Clutch adjustment settings must provide for full disengagement at any and all rpm.

Clutch linkage must be in proper working order and provide driver with full range of control. Driver must have adequate leverage/control of clutch pedal to easily and fully disengage clutch at any and all rpms.

\*\*Vehicles equipped with fully centrifugal clutches permitted to perform static starts only if driveline is fully disconnected.

### **DRIVELINE**

Drivelines must be completely disengaged during any static starts when drive wheels are touching the ground either by disconnecting coupler or use of "in and out" device. Exception would be when undergoing a mandated tech inspection static start in a designated and secure area.

Vehicles not equipped with driveline disconnect devices must have drive wheels off the ground using fixed-position jack-stand devices for static starts in populated areas.

### **FIRE EXTINGUISHER**

All participants making static starts must have a functional fire extinguisher near the car at any time the engine is running. Extinguishers must be carried in all push-start vehicles.

### **DRIVER RESTRAINT SYSTEM**

Seat belts and shoulder harnesses must be in good condition and fully utilized during any push start procedure.

### **APPAREL**

During any push-start procedures, including "practice starts," drivers are required to wear a jacket meeting SFI Spec 3.2A/1, full-length pants, closed-toe shoes, socks, gloves, helmet, mask, and goggles. Nylon or nylon-type clothing (i.e., gloves, pants, socks, or shoes) prohibited.

### **CREDENTIALS**

All drivers participating in push-start Cacklefest events must have demonstrated full capability to operate vehicle with multiple starts required to be included in feature events. Drivers may be asked to demonstrate the ability to locate, and operate, all controls even when blindfolded.

Drivers of all Cacklefest vehicles, and drivers of all push vehicles, must possess a valid state driver's license.

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## Section 12

# General Regulations

Throughout this Supplement, a number of references are made for particular products to meet certain specifications (i.e., SFI Specs, Snell, DOT, etc.). It is important to realize that these products are manufactured to meet certain specifications, and upon completion, the manufacturer labels the product as meeting that spec. Therefore, except as outlined under SFI requirements, any change to the product voids that certification.

**Under no circumstances may any certified product be modified, altered, or in any way vary from the “as manufactured” condition. Such a practice is in violation of the SFI, Snell, DOT, etc. program, voids such certification and therefore will not be accepted by NHRA.**

**Notice: It is the responsibility of the participant, not NHRA or any track, to ensure that all safety equipment is approved and is correctly installed, worn, maintained and used.**

### ENGINE: 1

#### 1:1 COOLING SYSTEM

All cooling systems/radiators must be installed in the stock location for body style used. Front-engine dragsters must have system installed in front of engine. See 4:3 DEFLECTOR PLATE.

#### 1:2 ENGINE

All functions of engine, fuel, timing, clutch, and throttle must be a direct function of the driver.

Classes limited to automotive engines only unless otherwise stated under Class Requirements. Contestants in weight-to-cubic-inch classes must claim cubic-inch displacement of engine used; under no circumstances may claimed displacement exceed actual displacement by more than 5 cubic inches. No allowance for overbore; any part of a cubic inch is rounded off to the next highest inch (i.e., 301.2 = 302). If engine size is changed during a race, competitor must report to Technical Department supervisor before a run is attempted. Crankshaft centerline must not exceed 24 inches from ground in any class. Engine must be mounted to frame by a minimum of two 3/8-inch-diameter Grade 5 bolts. Valvetrain must incorporate conventional automotive coil spring design; pneumatic-type valvetrains are prohibited in all classes. All classes, with the exception of Stock and E.T. cars slower than 10.99 seconds, harmonic balancer meeting SFI Spec 18.1 or solid metallic hub mandatory. All cars with pressed-on front harmonic balancers must have such installed to protect accidental loss (i.e., drilled and bolted). Ceramic bearings prohibited in all NHRA categories.

#### 1:3 EXHAUST

All cars must be equipped with exhaust collectors, headers, or stacks installed to direct exhaust out of car body to rear of car, away from driver and fuel tank. Exhaust collectors/stacks must be securely fastened (i.e., metal connector straps, bolted, welded, etc.) to prevent loss of collector/stacks during competition. Flexible tubing or “flex pipe” prohibited in all categories. If mufflers are used, they must be securely attached to exhaust system and car body or frame. Consistent with its endeavors to maintain drag racing’s acceptance as a recognized sport and recreation, NHRA may enforce the same or similar requirements on other categories in the future.

Part of NHRA’s mission is to preserve the right to race. In many communities, the right to race is contingent upon reducing noise and complying with local noise and muffler laws, ordinances, regulations, or agreements. Therefore, all competitors must comply with any muffler rules applicable to his or her class in the Rulebook, and must comply with any noise-reduction requirements (including mufflers) mandated by any member track at which he or she races. Member tracks have the authority to impose muffler rules and noise regulations beyond those required by the NHRA Rulebook.

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### **1:4 FLASH SHIELDS**

Carburetor inlet must not be openly exposed. In lieu of hood, carburetors must be equipped with a flash shield or velocity stacks that cover the top, back, and sides, preventing fuel from being siphoned into the airstream or blown into driver's face. Additionally, any car that is driven, not towed, through the pits, with open stack(s) not protected by hood or scoop, must have screening installed on open stack(s) to prevent items from entering stack.

### **1:5 FUEL SYSTEMS**

**Location:** All fuel tanks, lines, pumps, valves, etc. must be outside of the driver's compartment and within the confines of the frame and/or steel body. Cool cans, fuel-distribution blocks, etc. must be located at least 6 inches forward of the flywheel/bellhousing area on rear-wheel-drive (RWD) vehicles. Fuel pressure gauge isolators, with steel braided line, may be mounted on firewall.

**Tanks:** When permitted by class regulations, fuel tanks located outside body and/or frame must be enclosed in a steel tube frame constructed of minimum 1 1/4-inch O.D. x .058 chromoly or .118 mild steel tubing. All fuel tanks must be isolated from the driver's compartment by a firewall, completely sealed to prevent any fuel from entering the driver's compartment. All fuel tanks must have a pressure cap and be vented outside of body. A positive-locking screw-on fuel tank cap is mandatory on all open-bodied cars. Insulated fuel tanks prohibited. When used, fuel cells must have a metal box protecting the part of the fuel cell that is outside of body lines or trunk floor, excluding hose connection area in rear. Non-metallic fuel cells or tanks must be grounded to frame.

**Lines:** All non-OEM fuel lines (including gauge and/or data recorder lines) must be metallic, steel braided, or NHRA-accepted "woven or woven-pushlock." A maximum of 12 inches total (front to rear) of non-metallic or non-steel braided hose is permitted for connection purposes only; individual injector nozzle and motorcycle fuel lines are excluded. Fuel lines (except steel braided lines) in the flywheel/bellhousing area must be enclosed in a 16-inch length of steel tubing, 1/8-inch-minimum wall thickness, securely mounted as a protection against fuel-line rupture. Fuel lines may not be routed in the driveshaft tunnel. It is mandatory that fuel lines passing supercharger drive belts be steel braided, NHRA-accepted woven or woven-pushlock, or be enclosed in protective steel tubing. A current list of NHRA-accepted woven or woven-pushlock fuel lines is available on NHRA.com. All NHRA-accepted fuel lines must use ends that are specifically designed for the type of fuel line being used. No hose clamps allowed on NHRA-accepted fuel lines.

**Pumps/Valves:** Cars with non-OEM-type mechanical fuel pumps must have a quick-action fuel-shutoff valve within easy reach of driver and located in the main fuel line between the fuel tank and the carburetor and/or injectors. Fuel recirculation systems not part of normal fuel/pump system prohibited.

**Fuel/Air:** Any method of artificially cooling or heating fuel prohibited (i.e., cool cans, Freon, wet rags, etc.), except as noted in Class Requirements. Wet towels, rags, ice, etc. must be removed before vehicle leaves staging area. Ambient-temperature air only; cooling or otherwise changing the conditions of the intake air is prohibited. Spraying of intake with any artificial spray or coolant prohibited.

**Alternative Fuels:** Containers for alternative fuels must be permanently labeled by the manufacturer as suitable for CNG or propane. Tank must be vented outside of body. Alternative fuel systems must incorporate pressure-relief valve meeting standards listed in NFPA 52. Alternative fuel systems must incorporate a manual shutoff valve according to standards listed in NFPA 52 for CNG vehicular systems. All hoses/lines used for alternative fuels must be permanently and distinctively marked by the manufacturer as to manufacturer name or trademark, service identifier, and design pressure. Plastic, cast iron, galvanized, copper, or aluminum pipe or hoses prohibited.

### **1:6 FUEL**

**Racing Gasoline:** A current list of NHRA-accepted racing gasoline is available on NHRA.com. For all categories using racing gasoline, racing gasoline is defined for purposes of this Rulebook as a mixture of hydrocarbons only. Non-cyclic olefinic hydrocarbons and non-hydrocarbons that do not increase the specific energy of the gasoline are allowed to the extent

they do not exceed 1 percent (1%) by volume and are blended in the gasoline by the refiner or fuel manufacturer. Non-hydrocarbons that do not increase the specific energy of the gasoline are allowed to the extent that they do not exceed 0.15 percent by volume and are blended in the gasoline by the refiner or fuel manufacturer. Racing gasoline is a good electrical insulator, or dielectric, and its relative effectiveness as an insulator is represented by its Dielectric Constant. The average D.C. for the hydrocarbons that make up gasoline is 2.025. This is defined as a reading of "0" with the NHRA Fuel Check meter. Racing gasoline is tested and certified at NHRA events by the application of various chemical analyses as considered appropriate by Fuel Check personnel. Racing gasoline in a vehicle may be checked before use in competition.

**Methanol:** Methanol is a clear, colorless liquid with a mild odor at ambient temperatures. Methanol is sold in two U.S. Federal Grades: A and AA. Either grade is permitted for use in NHRA competition, and racers should ensure that the methanol they purchase meets federal standards of purity. The purity standards for each grade are shown in the table below.

### SPECIFICATIONS FOR PURE METHANOL

Property	Grade A	Grade AA
Methanol content, wt percentage, min	99.85	99.85
Acetone and aldehydes, ppm, max	30	30
Acetone, ppm, max	20	
Ethanol, ppm, max	10	
Acid (as acetic acid), ppm, max	30	30
Water content, ppm, max	1500	1000
Specific gravity, 20C	.7928	.7928
Permanganate time, min	30	30
Odor	Characteristic	
Distillation range at 101 kPa (760mm Hg)	Not more than 1°C, including 64.6 +/- 0.1°C at 760mmHg	
Color, platinum-cobalt scale, mix	5	5
Appearance	clear-colorless	
Residual on evaporation, g/100 mL	.001	.001
Carbonizable impurities; color platinum-cobalt scale, max	30	30

Methanol is tested and certified at NHRA events by the application of various chemical analyses as considered appropriate by Fuel Check personnel. To be considered legal, methanol used in NHRA competition must meet the federal standards of purity. Any deviation from these standards because of impurities (beyond the limits established in the federal specification) in the fuel sample will result in disqualification. Because methanol is a hygroscopic substance, it readily absorbs moisture from the air, which rapidly renders methanol illegal as a fuel for use in NHRA competition. Racers are cautioned to keep methanol containers tightly capped at all times to minimize the absorption of water. Racers are encouraged to have Fuel Check personnel check samples of their methanol any time there may be doubt as to its purity.

**Nitromethane:** Only nitromethane from an NHRA-accepted supplier may be brought on site or used on site at any NHRA Series event. NHRA will designate accepted suppliers of nitromethane that may be brought on site and/or used on site at NHRA Events. To be eligible for competition, fuel teams must use nitromethane from one of the accepted suppliers. All nitromethane will continue to be required to contain a marker that changes color when the nitromethane has been sensitized or contaminated; no clear nitromethane will be allowed. Fuel, whether in the vehicle or otherwise, as well as transporters and pit areas, will be checked for compliance with this rule as deemed appropriate by NHRA. Any participant who violates any rule regarding nitromethane shall be banned from competition at the applicable event, or shall be subject to such other penalty deemed appropriate by NHRA.

**Nitrous Oxide:** Prohibited.

**Propylene Oxide:** The use of propylene oxide is prohibited in all categories.

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### **1:7 LIQUID OVERFLOW**

All cars in competition with any type of water overflow capable of spilling water must have a catch can to accumulate the excess liquids and prevent leaking onto the track. Minimum catch can capacity: 1 pint. Catch can must be securely fastened; i.e., bolted, clamped. Overflow may be routed into headers on cars that are supercharged or burn nitromethane or alcohol.

### **1:8 LOWER ENGINE CONTAINMENT DEVICE**

When required, an SFI Spec 7.1 or 7.2 Lower Engine Containment Device must cover the sides of the block and pan up to within one inch of the head mating surface and extend to within 1 1/2 inches of the front and rear of the cylinder case area. The front and rear oil pan must be covered upward to the pan rail. The device must be free of cuts, tears, openings, etc. that would allow oil to escape. The device must be secured with a minimum of four straps, one at each corner. A positive device must be used to cover and contain external oil pumps that fasten directly to the engine; this device must fit such that it will contain oil from an engine failure. The device must have a solid member (hard part) along the top edge to form a zero air gap between the sides of the device (and/or the absorbent material) and the engine block. SFI Spec 7.1 devices must be updated/recertified by the original manufacturer at one-year intervals.

### **1:9 OIL SYSTEM**

Accu-sump, dry-sump tanks, oil filters, oil supply lines, etc. prohibited in driver compartment and outside of frame and/or steel body/fenders, except as noted in Nostalgia Top Fuel. Oil-pressure gauge and line permitted in driver compartment, metal or steel braided line mandatory, maximum 3/16-inch inside diameter. Power-enhancing additives prohibited.

### **1:10 SUPERCHARGER**

**Nostalgia Top Fuel, Nostalgia Funny Car, A/Fuel, and AA/GS:** Refer to individual Class Requirements for supercharged specifications.

**Roots-type:** Maximum size: 14-71, 22 1/4-inch case length, 11 1/4-inch case width, 19-inch rotor length; maximum rotor diameter: 5.840 inches including fixed stripping. Rotors must be driven from the front; both external drive and internal gearing. The case must be one piece with removable front and rear bearing end plates; rotor must be contained within one-piece case. Rotor helix angle may not exceed that of a standard 71-series GM-type rotor (4 degrees per inch). Maximum overdrive see Class Requirements. Aluminum studs (supercharger to manifold) mandatory in Advanced E.T., A/Fuel, Nostalgia Funny Car, and Nostalgia Top Fuel. See Class Requirements for manifold burst panel and restraint specifications.

**Roots-type high helix:** Must adhere to same maximum case dimensions and maximum rotor cavity diameter as standard Roots. Rotor helix angle may not exceed 6.5 degrees per inch (123.5 degrees total over 19-inch maximum rotor length). Rotors must be driven from the front; both external drive and internal gearing. Use of high-helix supercharger prohibited. Maximum overdrive see Class Requirements. Aluminum studs (supercharger to manifold) mandatory. See Class Requirements for manifold burst panel and restraint specifications.

Manifold burst panel meeting SFI Spec 23.1 mandatory with alcohol or nitromethane. Any other use of double burst panels on any supercharger or manifold prohibited. Aluminum studs (supercharger to manifold) mandatory. Overdrive limits, as determined appropriate by NHRA, are subject to adjustment at any time as dictated by performance. Variable multi-speed supercharger devices prohibited regardless of supercharger type.

**ALL SUPERCHARGERS:** For all cars running 9.99 seconds or quicker, fuel and/or oil lines must be shielded wherever they pass the supercharger drive belt. Either a belt guard or fuel/oil line guard may be used.

### **1:11 SUPERCHARGER RESTRAINT DEVICE**

Supercharger restraint system meeting SFI Specs mandatory per Class Requirements. Nostalgia Top Fuel and Nostalgia Funny Car requires SFI 14.3. SFI Spec 14.1 restraint permitted with Roots-type 6:71 on alcohol. Restraint system must be updated at two-year intervals from date of manufacture. 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. See Class Requirements.

**1:12 THROTTLE**

Regardless of class, each car must have a foot throttle incorporating a positive-acting return spring attached directly to the carburetor/injector throttle arm. A positive stop or override prevention must be used to keep linkage from passing over center and sticking in an open position. In addition to return springs, some means of manually returning the throttle to a closed position by use of the foot must be installed on all altered linkage systems except hydraulically or cable-operated systems. Per Class Requirements throttle control must be manually operated by driver's foot; electronics, pneumatics, hydraulics, or any other device may in no way affect the initial throttle operation. Cable throttle systems permitted. NHRA-accepted hand controls for the physically challenged permitted. Choke cables and brazed or welded fittings on steel cable prohibited. No part of throttle linkage may extend below framerails.

**1:13 VENT TUBES, BREATHERS**

Mandatory as outlined in Class Requirements; permitted on all cars. Where used, the tubes must terminate into an acceptable, permanently attached catch tank with a minimum capacity of one gallon per engine (except as noted in Class Requirements). The catch tank must be baffled to keep overflow off track. Breather/vent tubes must be mechanically secured (tie-wraps prohibited) to the fittings and the fittings locked at both ends.

**DRIVETRAIN: 2****2:1 ANTI-BLOWBACK DEVICE**

If mandated by Class Requirements, a brace or device must be installed that will prevent the bellhousing or adapter shield from being blown rearward in the event of flywheel and/or clutch explosion. Material required is 4130 chromoly, minimum size is .875-inch O.D. x .083-inch wall tubing with 3/8-inch fasteners. Ball-lock pins prohibited.

**2:2 AXLE-RETENTION DEVICES**

All cars, except as noted in Class Requirements, must be equipped with a satisfactory means of rear-axle retention; minimum .120-inch aluminum or .090-inch steel bearing retainer mandatory. Stock "C"-clip axle retention prohibited as outlined in Class Requirements.

**2:3 CLUTCH**

Each car in competition, except those with automatic transmissions, must be equipped with a foot-operated clutch incorporating a positive stop to prevent clutch from going over center or past neutral, as in the case of centrifugal units. All pedals must be covered with non-skid material. NHRA-accepted hand controls for the physically challenged permitted. All slider clutches must meet SFI Spec 1.2, 1.3, or 1.4 as outlined under Class Requirements. In Class Requirements that call for an SFI Spec 1.2 clutch, an SFI Spec 1.5 clutch can be used. Multi-disc clutch assembly for non-OEM supercharged and nitrous-oxide injected, vehicles must meet SFI Spec 1.3, 1.4, or 1.5 and must utilize an SFI Spec 6.2 or 6.3 flywheel shield, except as noted in Class Requirements.

**2:4 DRIVELINE**

On any car in which the driver sits over or behind the rear-end center section, a suitable protective shield of .120-inch minimum thickness steel plate must be installed for units with universal joints, securely mounted to the rear-end center section and the bellhousing adapter. For straight couplers, the minimum shield requirement is .063-inch aluminum, which must contain an inspection cover for removal and inspection of the coupler securely mounted to the rear-end center section and the bellhousing adapter, or as noted in Class Requirements. In place of a crossmember, in the vicinity of the front universal joint, all cars in competition using open driveshafts must have a retainer loop 360 degrees of enclosure, 1/4-inch minimum thickness and 2 inches wide, or 7/8-inch x .065-inch welded steel tubing, securely mounted and located within 6 inches of the front universal joint for support of the driveshaft in event of U-joint failure. Open drivelines passing any part of the driver's body must be completely enclosed in 1/8-inch minimum thickness steel plate, securely mounted to the frame or frame structure. Driveshaft loop required on all cars running 13.99 (\*8.59) or quicker and utilizing slicks; except vehicles running 11.49 (\*7.35) seconds or slower equipped with street tires.

**2:5 FLYWHEEL**

The use of stock-type cast iron flywheels and/or pressure plates prohibited. The use of aluminum flywheels in Nostalgia Top Fuel and Nostalgia Funny Car is prohibited. Units meeting SFI Spec 1.1, 1.2, 1.3, 1.4, or 1.5 mandatory except as noted in Class Requirements.

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### **2:6 FLYWHEEL SHIELD & MOTOR PLATE: General**

The use of aluminum bellhousing is permitted in all categories and applications. The aluminum bellhousing must meet applicable SFI Specifications. Absolutely no modifications to as-manufactured design are permitted on SFI Spec 6.1, 6.2, 6.3, or 9.1 flywheel shields and/or liners. An SFI Spec 6.1W bellhousing is also acceptable wherever an SFI Spec 6.1 bellhousing is mandatory or permitted. All 6.2 and 6.3 titanium bellhousings must be reinspected and recertified yearly. SFI 6.1 titanium and aluminum bellhousings and SFI 6.2 or 6.3 steel bellhousings must be reinspected and recertified every two years (or as specified by the manufacturer). SFI 6.1 or 9.1 bellhousings must be reinspected and recertified every five years (6.1) or every two years (9.1). Where SFI Spec bellhousings are mandatory, all applicable liners, large mounting fasteners, motor plates, etc., as required by SFI Specs or the manufacturer, must be properly installed.

Where an SFI 6.1, 6.3, or 9.1 bellhousing is mandatory, a full, one-piece motor plate is also mandatory at the rear of the engine block. The motor plate must be constructed of 6061-T6, 7075-T6 or 2024-T3 wrought heat-treated aluminum alloy plate, minimum 1/8-inch thick for 6.1 or 9.1 applications, minimum 3/16-inch thick for 6.3 applications. In addition to the fastener requirements noted below, the SFI 6.3 flywheel shield must be fastened to the motor plate with four 1/2-inch-diameter Grade 5 shoulder bolts or high strength steel (or titanium) fasteners and nuts, one in each quadrant. Where an SFI 6.2 bellhousing is mandatory, see Section 2:8 for motor plate and fastener requirements.

The flywheel shield must be fastened to the engine and motor plate with a full complement (all available engine bolt holes or as specified by the manufacturer) of Grade 8 bolts or high strength studs. The use of Allen bolts to fasten the shield to engine or motor plate, to fasten covers, etc. is prohibited. All bolts (not studs or nuts) used for flywheel shield mounting, covers, etc. must be identifiable as to grade; all nuts and bolts associated with flywheel shield mounting, covers, etc. must be full standard depth, width, etc. (reduced thickness bolt heads, hollow bolts, half nuts, thin wall nuts, etc. prohibited). Maximum depth of flywheel shield is 8 5/8 inches, except Nostalgia Top Fuel, Nostalgia Funny Car, and Advanced E.T., maximum depth 9.4 inches (inside). Maximum thickness of all motor plates, mid-plates, and mounting plates installed between engine and flywheel shield is 1/2-inch, except SFI 6.1 which may be 1 1/4-inch maximum. All covers and fasteners associated with the flywheel shield must be installed prior to starting engine at any time, including warm-ups. Maximum spacing between flange fasteners in the flywheel shield is 7 inches. Chemical milling or any other structure-weakening procedure is prohibited. Welding to repair a flywheel shield is prohibited unless it is performed by the manufacturer and recertified by the manufacturer prior to use.

For cars equipped with an SFI 7.1 lower engine ballistic/restraint device, a maximum of two holes, each no larger than two inches in diameter (or 3.14 square inches equivalent area) are permitted. The holes must be located entirely below the horizontal centerline of the crankshaft. The holes must be at least 0.5-inch from any bellhousing bolt hole and be separated by at least two inches. SFI 6.2 flywheel shields may have one two-inch maximum diameter hole in the bottom of the back face of the shield. The opening in the motor plate for the crankshaft flange may not exceed the crankshaft flange diameter by more than one inch (except as noted for Top Fuel and Funny Car).

### **2:7 FLYWHEEL SHIELD: Nostalgia Top Fuel and Nostalgia Funny Car**

Nostalgia Top Fuel and Nostalgia Funny Car equipped with a clutch must have a flywheel shield (bellhousing) that meets SFI Spec 6.2 and is labeled accordingly. All requirements for Nostalgia Top Fuel and Nostalgia Funny Car bellhousing installations are the same as for Top Fuel and Funny Car with the following exceptions:

A one-piece motor plate constructed of 1/4-inch minimum thickness 2024 T3, 6061 or 7075 T6 aluminum and fitting between the engine and flywheel shield according to the requirements of SFI Spec 2.2B, 2.1, or 10.1E is required. The motor plate must be attached to the chassis at the four corners with at least two welded mounting points utilizing minimum 3/8-inch-diameter Grade 8 bolts and full nuts. The remaining two motor plate mounting points must be at least saddles fitting around the framerais and secured with aircraft-type clamps or bolts (hose clamps prohibited).

The flywheel shield and motor plate are to be fastened to the engine by at least seven 3/8-inch-diameter Grade 8 bolts or high strength steel or titanium studs threaded into the engine (3/4-inch minimum) and nuts of a similar material, above the centerline of the crankshaft. The motor plate must be fastened to the flywheel shield with at least eight 3/8-inch-diameter Grade 8 bolts or high strength steel alloy (or titanium) studs and nuts below the centerline of the crankshaft. The flywheel shield must also be fastened to the motor plate by four 3/4-inch-diameter Grade 5 shoulder bolts

or high strength steel (or titanium) fasteners and nuts; one in each quadrant as required by SFI Spec 2.1 or 10.1E. Nostalgia Top Fuel and Nostalgia Funny Car: The opening in the motorplate for the crankshaft flywheel flange may not exceed the crankshaft diameter by more than one inch. See General Regulations 2:6.

### **2:8 FLYWHEEL SHIELD: A/Fuel**

Cars equipped with a clutch must have a flywheel shield (bellhousing) that meets SFI Spec 6.2 and is labeled accordingly. All requirements for bellhousing installations are the same as for Nostalgia Top Fuel and Nostalgia Funny Car with the following exceptions:

A one-piece motor plate constructed of 1/4-inch minimum thickness 2024 T3, 6061 or 7075 T6 aluminum and fitting between the engine and flywheel shield according to the requirements of SFI Spec 2.2B or 10.1E is required. The motor plate must be attached to the chassis at the four corners with at least two welded mounting points utilizing minimum 3/8-inch-diameter Grade 8 bolts and full nuts. The remaining two motor plate mounting points must be at least saddles fitting around the frametrails and secured with aircraft-type clamps or bolts (hose clamps prohibited).

The flywheel shield and motor plate are to be fastened to the engine by at least seven 3/8-inch-diameter Grade 8 bolts or high strength steel or titanium studs threaded into the engine (3/4-inch minimum) and nuts of a similar material, above the centerline of the crankshaft. The motor plate must be fastened to the flywheel shield with at least eight 3/8-inch-diameter Grade 8 bolts or high strength steel alloy (or titanium) studs and nuts below the centerline of the crankshaft. The flywheel shield must also be fastened to the motor plate by four 3/4-inch-diameter Grade 5 shoulder bolts or high strength steel (or titanium) fasteners and nuts; one in each quadrant as required by SFI Spec 2.2B or 10.1E. The opening in the motorplate for the crankshaft flywheel flange may not exceed the crankshaft diameter by more than one inch. See General Regulations 2:6.

### **2:9 FLYWHEEL SHIELD: AA/Gas Supercharged and Junior Fuel**

As described in Section 2:6, any modifications or alterations to the bellhousing by anyone other than the original manufacturer are prohibited. Bellhousing must be recertified by the original manufacturer following modification. Clutch adjustment slots, maintenance holes and covers, etc. must be installed by the original manufacturer.

See Section 2:6 for motor plate and general requirements. The flywheel shield must be fastened to the engine and motor plate with a full complement (all available engine bolt holes or as specified by the manufacturer) of minimum 3/8-inch-diameter Grade 8 bolts or high strength steel studs above the centerline of the crankshaft. The motor plate must be fastened to the flywheel shield with at least eight 3/8-inch-diameter Grade 8 bolts or high strength steel alloy (or titanium) studs and nuts below the centerline of the crankshaft. An opening in the motor plate for an alternative starter location is permitted but it may not exceed 2 inches in diameter and when such an opening is present only one cooling hole is permitted in the motor plate.

All rear-engine cars must have a deflector plate to protect driver and fuel tank from engine. For Nostalgia Top Fuel and A/Fuel Dragster specifications, see Class Requirements. Plates must be made of minimum 1/8-inch aluminum or .060-inch steel or titanium. Must extend from top blower pulley to bottom pulley and be at least 1 inch wider than each pulley for supercharged cars. Other cars must have plate covering from shoulder height to bottom of chassis. On any enclosed engine/driver configuration, a full bulkhead must be installed, completely sealing the driver from the engine. Minimum attachment for any plate is four 5/16-inch, Grade 5 bolts. See 1:1 COOLING SYSTEM for additional requirements.

### **2:10 FLYWHEEL SHIELD: Other Classes**

All other cars using a clutch and running 11.49 or quicker must be equipped with an SFI 6.1, 6.2, 6.3, or 9.1 flywheel shield. See Section 2:6 for motor plate and general requirements. There shall be a minimum of seven 3/8-inch-diameter Grade 8 bolts or high strength steel studs in the top half of the bellhousing. There shall be a minimum of eight 3/8-inch-diameter Grade 8 bolts or high strength steel studs in the bottom half of the bellhousing used to fasten the bellhousing to the motor plate. Modifications or repairs to the flywheel shield prohibited except if performed and recertified by manufacturer.

All cars running 11.49 or quicker for which an SFI 6.1, 6.2, 6.3, or 9.1 flywheel shield is not commercially available may use an SFI 6.1, 6.2, 6.3, or 9.1 flywheel shield from another application and mount it to a motor plate that is mounted to the engine block at all available bolt holes; or must be equipped with a flywheel shield made of 1/4-inch minimum thickness steel plate, securely mounted to the frame or frame structure and completely surrounding the

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bellhousing 360 degrees. The flywheel shield shall not be bolted to either the bellhousing or engine. The flywheel shield must extend forward to a point at least 1 inch ahead of the flywheel and 1 inch to the rear of the rotating components of the clutch and pressure plate.

**Titanium flywheel shields permitted.**

### **2:11 REAR END**

Welded spider gear rear ends prohibited in all classes. Four-wheel drive permitted per Class Requirements. Aftermarket axles and axle-retention device mandatory on any vehicle 10.99 or quicker; also mandatory on any car (regardless of class or E.T.) with a spool.

### **2:12 TRANSMISSION**

All cars and trucks in competition except motorcycle- or snowmobile-powered dragsters must be equipped with a reverse gear.

### **2:13 TRANSMISSION, Aftermarket Planetary**

Automated shifters are not allowed in any class.

A transmission shield covering transmission and reverser that meets SFI Spec 4.1 is mandatory if engine burns nitromethane; or engine burns methanol or nitrous oxide and runs 9.99 seconds or quicker; or vehicle runs 7.49 seconds or quicker; or engine is supercharged or turbocharged; or on any overdrive unit. Air shifter bottles must be stamped with DOT-1800 pound rating (minimum) and be securely mounted (i.e., no tie wraps or hose clamps).

At least three bolts, 3/8-inch minimum, must be used to secure aftermarket planetary transmissions to bellhousing, except as noted in Class Requirements.

### **2:14 TRANSMISSION, Automatic/NHRA-Accepted**

Automated shifters are not allowed in any class.

Any non-OEM automatic floor-mounted automatic transmission shifter must be equipped with a spring-loaded positive reverse lockout device to prevent the shifter from accidentally being put into reverse gear. Functional neutral safety switch mandatory. All transmission lines must be metallic or high-pressure-type hose. All vehicles running quicker than 10.99 seconds (\*6.99) or faster than 135 mph and using an automatic transmission must be equipped with a transmission shield meeting SFI Spec 4.1 and labeled accordingly. ("Blanket"-type shield, appropriately labeled as meeting SFI Spec 4.1, permitted.) All non-blanket-type shields must incorporate two (or one, per manufacturer's instructions) 3/4 x 1/8-inch straps that bolt to the shield on each side and pass under the transmission pan, or transmission pan must be labeled as meeting SFI Spec 4.1. Permitted in all classes where an automatic transmission is used.

Any car 9.99 or quicker, and 135-mph or faster using an automatic transmission, Lenco Drive, or BRT must be equipped with a flexplate meeting SFI Spec 29.1 and covered by a flexplate shield meeting SFI Spec 30.1. Transmission that can utilize a high-gear transbrake must be supported by the use of two momentary buttons (one to arm the system, second as the main transbrake). Air shifter bottles must be stamped with DOT-1800 pound rating (minimum) and be securely mounted (i.e., no tie wraps or hose clamps).

All cars running 10.99 (\*6.99) seconds and quicker must have an NHRA-accepted locking type dipstick on the transmission.

## **BRAKES & SUSPENSION: 3**

### **3:1 BRAKES**

Brakes on each car, regardless of class, must be in good working order with two-wheel hydraulic brakes on rear wheels as a minimum requirement. Four-wheel hydraulic brakes are recommended, or as specified under Class Requirements. Lightening of backing plates, brake drums, and/or brake shoes by cutting or trimming metal prohibited. Cooling or lightening holes may not be drilled in cast iron disc brake rotors. Aluminum rotors prohibited. If hand brake is used, brake handle must be inside car body or driver compartment and connected to footbrake. Brake lines must be steel, steel braided, or DOT-approved flexible and routed outside the framerail, or enclosed in a 16-inch length of 1/8-inch minimum wall thickness steel tubing securely mounted

where line(s) pass the flywheel bellhousing area and not routed in the driveline tunnel. All brake lines must be attached to chassis as per OEM style; hoses must have mounting brackets; no tie wraps, tape, etc. All brake lines on any rear-engine car must be protected inside of tubing or be braided steel construction where they pass the engine. All pedals must be covered with non-skid material. Automated and/or secondary braking systems prohibited. NHRA-accepted hand controls for the physically challenged permitted. Application and release of brakes must be a direct function of the driver; electronics, pneumatics, or any other device may in no way affect or assist brake operation. NHRA-accepted mechanical ABS systems permitted in all classes; contact NHRA Technical Department headquarters. If brake system includes a differential pressure switch, line-loc installed on front brakes must have solenoid installed after the differential switch. All line-locs (electric or hydraulic) must be self-returning to normal brake operating mode.

### **3:2 SHOCK ABSORBERS**

Each car in competition must be equipped with one operative shock absorber for each sprung wheel. Shock absorbers may be either hydraulic or friction type, securely mounted, and in good working order. See Class Requirements.

### **3:3 STEERING**

Each car's steering system must be secure and free of defects. All butt-welded parts must have additional visible reinforcement. Only conventional automotive steering systems are permitted; flexible steering shafts prohibited. Rear-wheel steering prohibited, unless vehicle was originally manufactured with an OEM system. An OEM system may not be modified, altered, or used in any manner inconsistent with manufacturer's specifications. All rod ends must be a minimum of 3/8-inch shank diameter and must be installed with flat washers of sufficient outside diameter to prevent bearing pullout. All steering boxes, sectors, and shafts must be mounted to the frame or suitable crossmember and cannot be mounted in any case to the bellhousing and/or bellhousing adapter shield, or motor plate. A secondary steering shaft stop must be installed to prevent long steering shaft from injuring driver in case of frontal impact (i.e., collar or U-joint pinned at crossmember, bracket, etc.). Commercially available quick-disconnect steering wheels permitted (except as noted in Class Requirements). Adapter must be welded to shaft. All fasteners must be of a positive nature; no roll or pressed pins, no ball-lock pins, set screws, etc. NHRA-accepted swing-away steering column permitted with removable steering wheel.

### **3:4 SUSPENSION**

All cars must have a full suspension system of the type produced by an automobile manufacturer (i.e., springs, torsion bars, etc.). Rigid-mount front and/or rear axles are permitted when so indicated in Class Requirements. All rod ends must be installed with flat washers of sufficient outside diameter to prevent bearing pullout. Hollow rod ends are prohibited. **Three-wheel vehicles are not eligible for competition in any class.** Radius rods are not required on front axles that are rigidly mounted 18 inches or less from kingpin axis. Any front suspension using a beam or tubular axle must have radius rods attached to frame.

### **3:5 TRACTION BAR ROD ENDS**

Minimum requirement for rod ends on the front of all ladder-type traction bars is 3/4-inch steel. A rod end strap to keep ladder bar secured in event of rod end failure mandatory in all classes. All traction devices that are not attached at front (i.e., slapper bars, etc.) must have a U-bolt or strap to prevent them from coming in contact with track.

### **3:6 WHEELIE BARS**

Some classes limit length of wheelie bar — see Class Requirements. All wheelie bars, regardless of class, must have non-metallic wheels (i.e., rubber, plastic). Wheelie-bar wheels must turn freely at starting line, any preload prohibited. Wheelie bars must be fixed. Hydraulics, pneumatics, electronics, etc. or any adjustment or movement during run prohibited. Using wheelie-bar wheels as "fifth wheel" sensing device prohibited.

## **FRAME: 4**

### **4:1 ALIGNMENT**

Each car in competition, regardless of class, must have sufficient positive front-end alignment to ensure proper handling of car at all speeds.

### **4:2 BALLAST**

As permitted in Class Requirements. Any material used for the purpose of adding to a car's total weight must be permanently attached to the car's structure and must not extend in front of or

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behind the rear of the car's body or above the rear tires. No liquid or loose ballast permitted (i.e., water, sandbags, rocks, shot bags, metal weights, etc.). Discovery of loose or disguised ballast will result in disqualification from the event, regardless of whether infraction occurs during qualifying or eliminations. Additional penalties may be imposed in the sole and absolute discretion of NHRA. Weight boxes (two maximum) made of 1/8-inch material may be constructed to hold small items such as shot bags, lead bars, etc., as long as box and contents do not weigh more than 100 pounds or as outlined in Class Requirements. The box must be securely fastened to the frame or crossmember with at least two 1/2-inch-diameter steel bolts. Any liquid other than engine fuel being used, located behind the front firewall (on a front-engine car), is considered ballast and is prohibited, except for intercooler tanks that contain water and/or ice only. Tank must be securely mounted to frame, frame member, or OEM floorpan. To permit "making a class" due to a difference in scale calibration, a maximum removable weight of 100 pounds (or as outlined in Class Requirements) is permitted. Removable weight must be securely mounted to the frame or frame structure by a minimum of two 1/2-inch-diameter steel bolts per 100 pounds, or one 3/8-inch steel bolt per 5 pounds; all other weight bars, pucks, etc. must use minimum 1/2-inch-diameter SAE grade 8 bolts for attachment. Hose clamps, wire, strapping, tape, tie wraps, etc. for securing weight or ballast prohibited. Acceptable forms of ballast are 1) Heavier gauge steel floors (i.e., 16- or 18-gauge, heavier gauge and/or plate steel prohibited); 2) Frame reinforcing cross members; or 3) the addition of protective equipment such as roll bars, flywheel shield, etc. If additional ballast is needed and is permitted by Class Requirements, it must be permanently attached to frame, bolted with two 1/2-inch-diameter bolts per 100 pounds, with nuts welded to bolts. Maximum amount of removable and/or permanent ballast, unless otherwise stated under Class Requirements, is 500 pounds.

### **4:3 DEFLECTOR PLATE**

See 1:1 COOLING SYSTEM for additional requirements.

### **4:4 FRAMES**

Nostalgia Top Fuel, Nostalgia Funny Car, and any car 9.99 or quicker (see Class Requirements) must have a serialized chassis sticker affixed to frame before participating in any NHRA event. Certifications are available at NHRA events, or by making prior arrangements through a division office. Grinding of welds prohibited. All butt welds must have visible reinforcement (i.e., sleeve and rosette welds). Pressurization of framerails, roll bar, or roll cage in lieu of air bottles is prohibited. Visible reinforcement around any hole in any SFI Spec chassis (not just the roll cage) mandatory. Reinforcement must be of at least the same cross sectional area as the hole, at least .049-inch-thick chromoly and completely welded around the outside. See also 4:10 ROLL BAR and 4:11 ROLL CAGE.

### **4:5 GROUND CLEARANCE**

Minimum 3 inches from front of car to 12 inches behind centerline of front axle; 2 inches for remainder of car, except oil pan and exhaust headers where permitted. When permitted under Class Requirements, devices used for anti-rotation purposes (i.e., wheelie bars) are exempt from the 2-inch clearance rule.

### **4:6 MAGNAFLUX CERTIFICATES**

Magnaflux certificates may be required by the technical inspector on any altered or welded parts.

### **4:7 MOUNTING HARDWARE**

Hose clamps and tie wraps may be used only to support hoses and wires; all other components must be welded, bolted, aircraft clamped, etc. All self-locking fastener buttons must be metallic. All self-locking fastener buttons may be painted any color on their face, but must be WHITE or SILVER ONLY under the face. This rule applies to ALL cars in ALL classes.

### **4:8 PARACHUTE**

If outlined in Class Requirements, it is mandatory to have a braking parachute produced by a recognized drag racing parachute manufacturer. Tech inspectors may observe the proper operation of the parachute and inspect for worn or frayed shroud lines, ripped or dirty canopies, and worn or ragged pilot chutes. Parachute cable housings should be mounted solidly to frame tube or other suitable member no farther back than 1 inch. The release housing must be attached within 12 inches of the parachute pack and in a manner that will allow the inner cable to release the parachute. When supercharged or using nitromethane as a fuel, it is mandatory that the parachute pack and unpacked shroud lines be protected with fire-resistant material from the mounting point to the pack. Parachutes must have their own independent mounting with sleeved 3/8-inch-minimum steel bolts or steel pins required for all applications unless otherwise stated in Class Requirements.

Shroud-line(s) mounting brackets must be constructed of minimum .090-inch steel unless otherwise stated in Class Requirements. Safety pins must be red flagged and removed prior to burnout. The use of ball-lock pins for parachute mounting prohibited. See Class Requirements regarding use of two parachutes. Such applications require separate shroud-line mounting points for each parachute system.

#### **4:9 PINION SUPPORT**

All cars using an open driveline must have radius arms, traction bars, or some suitable pinion support to prevent rear-end housing rotation.

#### **4:10 ROLL BAR**

All roll bars must be within 6 inches of the rear, or side, of the driver's head, extend in height at least 3 inches above the driver's helmet with driver in normal driving position, and be at least as wide as the driver's shoulders or within 1 inch of the driver's door. Roll bar must be adequately supported or cross-braced to prevent forward or lateral collapse. Rear braces must be of the same diameter and wall thickness as the roll bar and intersect with the roll bar at a point not more than 5 inches from the top of the roll bar. Crossbar and rear braces must be welded to main hoop. Sidebar must be included on driver's side and must pass the driver at a point midway between the shoulder and elbow. Swing-out sidebar permitted. All roll bars must have in their construction a cross bar for seat bracing and as the shoulder harness attachment point; cross bar must be installed no more than 4 inches below, and not above, the driver's shoulders or to side bar. All vehicles with OEM frame must have roll bar welded or bolted to frame; installation of frame connectors on unibody cars does not constitute a frame; therefore it is not necessary to have the roll bar attached to the frame. Unibody cars with stock floor and firewall (wheeltubs permitted) may attach roll bar with 6-inch x 6-inch x .125-inch steel plates on top and bottom of floor bolted together with at least four 3/8-inch bolts and nuts, or weld main hoop to rocker sill area with .125-inch reinforcing plates, with plates welded completely. All 4130 chromoly tube welding must be done by approved TIG heliarc process; mild steel welding must be done by approved MIG wire feed or approved TIG heliarc process. Welding must be free of slag and porosity. Any grinding of welds prohibited. See illustration. Roll bar must be padded anywhere driver's helmet may contact it while in driving position. Adequate padding must have minimum 1/4-inch compression or meet SFI Spec 45.1. Beginning June 1, 2011, all cars running 9.99 (\*6.39) or quicker, SFI Spec 45.1 mandatory.

#### **4:11 ROLL CAGE**

All cage structures must be designed in an attempt to protect the driver from any angle, 360 degrees. All 4130 chromoly tube welding must be done by approved TIG heliarc process; mild steel tube welding must be approved MIG wire feed or TIG heliarc process. Welding must be free of slag and porosity. Any grinding of welds prohibited. Plating of chassis prohibited for all cars manufactured after Jan. 1, 2003, unless otherwise noted in Class Requirements; painting permitted. Additionally, roll cage must be padded anywhere the driver's helmet may contact it while in the driving position. Beginning June 1, 2011, all cars running 9.99 (\*6.39) and quicker, padding must meet SFI Spec 45.1. Additional padding mounted on flat stock and fastened to the roll cage on both sides of the driver's helmet mandatory in 7.0 Pro, Jr. Fuel, AA/Gas, A/Fuel, Nostalgia Funny Car, and Nostalgia Top Fuel. Additional padding must be NHRA-accepted (with manufacturer's name displayed), securely mounted using bolts or locking fasteners, and must include flame-retardant covering. A current list of NHRA-accepted lateral head supports is available on NHRA.com.

#### **Open-Bodyed Cars**

When driver is in driving position in an open-bodied car, roll cage must be at least 3 inches in front of helmet. Cars without crossmember above driver's legs must have a strap or device to prevent legs from protruding outside chassis. On front-engine dragster, seat uprights and back braces must be arranged such that a flat surface passed over any two adjacent members will not contact the driver's seat or containment. Additional uprights, max 30 degrees from vertical, must be added until this requirement is satisfied. When non-vertical upright or "running W" side bay designs are used (i.e., uprights installed at greater than 30 degrees from vertical), adjacent roll-cage diagonals must be the same size as that required for the upright. Motor mount and/or rear-end uprights (except rear-engine dragster) may be rectangular tubing, 1 3/4-inch x 1-inch x .058 CM or MS minimum.

For all vehicles required to meet SFI Specification 2.1, 2.2B, 2.3M, 2.4B, 2.5B, 2.6, 2.7B, 10.1E and 10.4 the upper roll-cage members must have head/helmet guards of one-inch by .058-inch

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round tube on all new chassis or at scheduled recertification. Effective Jan. 1, 2007, all new Street Roadsters must conform to SFI Spec 10.4. Existing Street Roadsters must meet SFI Spec 10.4 at their next scheduled recertification effective Jan. 1, 2008. No existing cars will be recertified early to delay compliance.

### Full-Bodied Cars

On full-bodied cars with driver in driving position, helmet must be in front of main hoop. If helmet is behind or under main hoop, additional tubing same size and thickness as roll cage must be added to protect driver. Main hoop may be laid back or forward, but driver must be encapsulated within the required roll-cage components. On unibody cars with stock floor and firewall (wheel tubs permitted), the roll cage may be bolted or welded to the floor/rocker box via 6-inch x 6-inch x .125-inch steel plates similar to the roll-bar attachment requirements of paragraph 4:10. Unless attaching to OEM floor or frame, the minimum requirements for a frame member to which a roll-cage member is attached are 1 5/8-inch x .118-inch MS or .083-inch CM round and/or 2-inch x 2-inch x .058 MS or CM rectangular.

All cage structures must have in their construction a cross bar for seat bracing and as the shoulder harness attachment point; cross bar must be installed no more than 4 inches below, and not above, the driver's shoulders, or to side bar. All required rear braces must be installed at a minimum angle of 30 degrees from vertical and must be welded in. Side bar must pass the driver at a point midway between the shoulder and elbow.

Unless an OEM framerail is located below and outside of driver's legs (i.e., '55 Chevy, '65 Corvette, etc.) a rocker or sill bar, minimum 1 5/8-inch x .083 CM or .118 MS or 2-inch x 2-inch x .058-inch CM or MS rectangular, is mandatory in any car with a modified floor or rocker box within the roll-cage uprights (excluding 6 square feet of transmission maintenance opening). Rocker bar must be installed below and outside of driver's legs and must tie into the main hoop, the forward hoop, frame, frame extension, or side diagonal. Rocker bar may not tie into swing-out side bar support. If rocker bar ties into side diagonal more than 5 inches (edge to edge) from forward roll-cage support or main hoop, a 1 5/8-inch x .083 CM or .118 MS brace/gusset is mandatory between the diagonal and forward roll-cage support or main hoop.

Swing-out side bar permitted on OEM full-bodied car 8.50 e.t. and slower. The following requirements (a through d) apply:

- a. 1 5/8-inch O.D. x .083-inch CM or .118-inch MS minimum. Bolts/pins must be 3/8-inch-diameter steel, minimum and in double shear at both ends.
- b. Male or female clevis(es) permitted. Male clevis must use two minimum 1/8-inch-thick brackets (CM or MS) welded to each roll-cage upright; female must use minimum 1/4-inch-thick bracket (CM or MS) welded to each roll-cage upright. Pins must be within 8 inches of the vertical portion of both the forward and main hoops. A half-cup backing device must be welded to the vertical portion of the main hoop (inward side) or the upper end of the swing-out bar (outward side), minimum .118-inch wall (CM or MS) extending at least 1 5/8 inches past the center of the pins. A clevis assembly using a minimum .350-inch-thick male component and two minimum .175-inch-thick female components may use a 1/2-inch-diameter Grade 5 bolt and does not require a half-cup backing device.
- c. Sliding sleeves of 1 3/8-inch x .083 CM or .118 MS, with minimum 2-inch engagement, are permitted in lieu of the upper pin/cup.
- d. All bolt/pin holes in the swing-out bar must have at least one-hole diameter of material around the outside of the hole.

**On all cars requiring a roll cage**, if the OEM firewall has been modified (in excess of 1 square foot for transmission removal, not including bolted in components) a lower windshield or dash bar of 1 1/4 x .058-inch 4130 chromoly or 1 1/4 x .118-inch mild steel is mandatory connecting the forward cage supports.

### 4:12 WHEELBASE

Minimum 85 inches, unless car has original engine in original location and is shorter than original, or noted in Class Requirements. Maximum wheelbase variation from left to right is 1 inch, unless otherwise noted in Class Requirements.

## TIRES & WHEELS: 5

### 5:1 TIRES

Tires will be visually checked for condition, pressure, etc. and must be considered free of defects by the technical inspector prior to any run. All street tires must have a minimum of

1/16-inch tread depth. Temporary spares, space saver spares, farm implement or trailer tires prohibited. Metal, screw-in valve stems mandatory in tubeless tires, front and rear, on vehicles running 11.99 or quicker.

## **5:2 WHEELS**

Hubcaps must be removed for inspectors, who will check for loose lugs, cracked wheels, worn or oversized lug holes, and condition of spindles, axle nuts, cotter pins, etc. Snap-on hubcaps are prohibited on any class car. The use of "spinner" style wheels or any wheel design that incorporates movable pieces while vehicle is in motion or stationary are prohibited. Each car in competition must be equipped with automotive-type wheels with a minimum 12 inches of diameter unless Class Requirements stipulate otherwise. Motorcycle wheels or lightweight automotive wire wheels must be equipped with .100-inch minimum diameter steel spokes, properly cross-laced to provide maximum strength. All spoke holes in rim and hub must be laced. Omissions to lighten wheels prohibited. The thread engagement on all wheel studs to the lug nut, or lug bolts to wheel hubs, must be equivalent to or greater than the diameter of the stud/bolt. Length of the stud/bolt does not determine permissibility. (Example: A 7/16-inch stud must be thoroughly engaged through the threads in the hex portion of the lug a minimum of 7/16-inch.)

Wheel spacer permitted. Spacer to be either hub-centric or lug-centric and must fit with minimal clearance to retain concentricity. The wheel spacer must not reduce the minimum permitted thread engagement below the limits established by fastener diameter. (See example as stated above.) No stacking of wheel spacers allowed. Maximum rim width on any car: 17 inches. No rear wheel discs or covers permitted in any category.

## **INTERIOR: 6**

### **6:1 DRIVER COMPARTMENT**

Both doors must be functional from inside and outside on all full-bodied cars. All interior panels (firewalls, floors, wheel tubs, doors, etc.) within the driver compartment of enclosed-cockpit cars where the driver is located behind the engine must be constructed of materials other than magnesium. Driver compartment of any enclosed or full-bodied car must be totally sealed from engine and transmission. Openings around all linkages, lines, wires, hoses, etc. must be minimized.

### **6:2 UPHOLSTERY, SEATS**

The driver's seat of any car in competition must be constructed, braced, mounted, and upholstered to provide full back and shoulder support. The driver's seat must be supported on the bottom and back by the frame or crossmember. Except as noted in SFI Specifications, seats must be bolted with four bolts (and nuts and washers) on the bottom and one bolt in the rear into crossbar; all bolts must go into frame or crossbraces. Ball-lock pins for seat attachment prohibited in all classes. All seats must be upholstered, or as noted under Class or SFI Requirements. Properly braced, framed, supported, and constructed seats of aluminum, fiberglass, carbon fiber, or double-layer poly (accessory seats) permitted. Single-layer fiberglass seats must have steel tube framework, 1/2-inch-minimum O.D., for support. Aftermarket aluminum seats must have reinforced head rest. Magnesium seats prohibited.

### **6:3 WINDOW NET**

A ribbon-type or SFI Spec 27.1 mesh-type window net is mandatory on any full-bodied car required by the rules to have a roll cage. Window net must be securely mounted on the inside of the roll cage, with the permanent attachment at the bottom. All attachment points must be designed in an attempt to protect the driver and avoid contact with track surface or guardwall. Eyelet clips, dogleash hardware, hose clamps, etc. prohibited. Penetration of webbing, except as performed by manufacturer, prohibited. Any modification to net must be performed by manufacturer.

## **BODY: 7**

### **7:1 AIR FOILS, WINGS**

Air foils, canards, wings, and spoilers other than original factory equipment are permitted only in open-bodied class cars or as noted in Class Requirements. A positive locking device to prevent movement mandatory. No part to be within 6 inches of rear tires. Spring-loaded spoilers, wings, or canards prohibited. Adjustment of air foils, wings, or spoilers during run prohibited. NOTE: A spoiler is mounted directly to the deck lid of the vehicle such that air passes only on the top side of the device. An air foil or wing is mounted on stands, struts, or pedestals such that air passes over the top and underneath the device. Minimum fastener size on all front wings, canards, etc. is 1/4-inch. Ball-lock pins prohibited.

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### **7:2 COMPETITION NUMBERS**

All contestants are required to display a permanent driver number at all NHRA events. Numbers on side windows must be a minimum 6 inches high and 1 1/2 inches wide. Class designation letters must be a minimum 3 inches high and 1 inch wide. Driver's competition number and class designation must be displayed in a legible manner in a contrasting color to the vehicle's background color, or light color on windows, in a prominent position, and be clearly visible to the tower personnel. Class and numbers must be in the form of permanent decals or paint. The use of shoe polish in any form is prohibited.

### **7:3 FENDERS**

All vehicles in all classes must have re-rolled or beaded edges on altered fenders. Flaring or spreading external fender lines prohibited, except as noted in Class Requirements. Front fenders may not be "drooped" on full-fendered car except as noted in Class Requirements.

### **7:4 FIREWALL**

Each car in competition must be equipped with a minimum .032-inch aluminum or .024-inch steel firewall, extending from side to side of the body and from the top of the engine compartment's upper seal (hood, cowl, or deck) to the bottom of the floor and/or belly pan. Firewall must provide a bulkhead between the engine and/or fuel tank and driver compartment. All holes in firewall must be sealed with aluminum or steel. In certain instances, fiberglass, carbon fiber, or other composites may be used. See Class Requirements or consult NHRA. Use of magnesium prohibited.

### **7:5 FLOOR**

All cars without floors must be equipped with floor pans made of steel or aluminum that must extend the full length and width of the driver compartment to the rear of the driver's seat. Cars equipped with floors or belly pans made of fiberglass or other breakable material must have metal subfloors. In all cars with OEM fiberglass floors, a crossmember (minimum 2 inches x 2 inches, .083-inch wall thickness square tubing) must be installed between framersails for proper driver's seat, seat belt, shoulder harness, and crotch strap installation. Belly pans and subfloors enclosing engine or driver compartment must contain suitable drain holes so that liquids and foreign matter cannot collect, thus creating a fire hazard. Minimum .032-inch aluminum or .024-inch steel. In certain instances, an NHRA-accepted panel made of composite material may be substituted for steel or aluminum. Contact the NHRA Technical Services Department for list of accepted composite panels. Use of magnesium prohibited.

### **7:6 HOOD SCOOP**

On full-bodied cars, where permitted (unless class rules differ; i.e., AA/GS), hood scoop may not extend more than 13 inches above height of original hood surface. On open-bodied, front-engine cars, scoop may not extend more than 11 inches above height of carburetor top. Scoop must have one opening only in Nostalgia Top Fuel, Nostalgia Funny Car, AA/Gas Supercharged, Jr. Fuel, and A/Fuel. All other classes, multiple scoop openings permitted. Sensors, transducers, vents, wiring, hoses, etc. prohibited inside hood scoop. See Class Requirements for additional restrictions.

### **7:7 WINDSCREEN**

On open-bodied cars, or any other class car without a windshield, a metal or other fireproof deflector must be installed. Minimum size on open-bodied cars is 5 inches x 12 inches. The deflector should divert wind, liquids, and foreign matter over the driver's head, be securely mounted, and installed in such a manner that it does not obstruct the driver's frontal view in any way.

### **7:8 WINDSHIELD, WINDOWS**

Windshields and/or windows on all cars, when called for under Class Requirements, must be of safety glass, Plexiglas, Lexan, or other shatterproof material, minimum 1/8-inch thick. In all vehicles, windshields and/or windows must be clear, without tinting or coloring, except factory-tinted safety glass. In all other applications, windshield/window tint must meet the applicable state requirements. Competition number decals are permitted on any window, windshield or backlite, except as noted in Class Requirements. Tape of any kind prohibited on any windshield or window.

**ELECTRICAL/CONTROL: 8****8:1 BATTERIES**

All batteries must be securely mounted; must be of sufficient capacity to start vehicle at any time. Batteries may not be relocated into the driver or passenger compartments. Rear firewall of .024-inch steel or .032-inch aluminum (including package tray) required when battery is relocated in trunk. In lieu of rear firewall, battery may be located in a sealed .024-inch steel, .032-inch aluminum, or NHRA-accepted poly box. If sealed box is used in lieu of rear firewall, box may not be used to secure battery and must be vented outside of body. Relocated battery(s) must be fastened to frame or frame structure with a minimum of two 3/8-inch-diameter bolts. OEM located batteries without complete OEM hold-down hardware must be secured to OEM battery box/tray using the same 3/8-inch-diameter bolt hold-down method described in previous sentence. ("J" hooks prohibited or must have open end welded shut.) Metal battery hold-down straps mandatory. Strapping tape prohibited. A maximum of two automobile batteries, or 150 pounds combined maximum weight (unless otherwise specified in Class Requirements), is permitted. Maximums may vary according to Class Requirements.

**8:2 DELAY BOXES/DEVICES**

Delay boxes prohibited in all categories. A delay box or delay device is defined as any device (electric, electronic, pneumatic, hydraulic, mechanical, etc.) built for the express purpose of creating a delay between release of trans-brake or line-loc button, or release of foot or hand brake, or release of clutch pedal/lever, and the resultant action of the vehicle.

Changeable vehicle components, legal unto themselves (solenoids, throttle-linkage components, hoses, springs, etc.), even though the removal and replacement of that component may affect the reaction time of the vehicle in relation to the driver action, is not considered a delay device. Wiring may consist of a single (i.e., "one" or "1") continuous wire from a power source to a switch (or button), and a single continuous wire from the switch to the transbrake or line-loc solenoid. One splice (no quick-disconnect) is permitted from the two-step to the solenoid (i.e., between the switch and the solenoid). All switches, buttons, wiring, solenoids, etc. must be for normal automotive use; i.e., not intended to create a delay (adjustable or non-adjustable) between release of the button and the resultant action of the solenoid. All line-loc/transbrake wiring before and after the switch must be separate from any other wiring and fully visible. Computer wiring, sensors, relays, and the like may not be wired to the solenoid wiring. Two-steps or other rev limiters that are adjustable by thumbwheel, replaceable chips, and the like may not be within the driver's reach and will preferably be located outside the driver compartment.

Any system that does not fit the above description is prohibited and must be corrected before the vehicle will be passed through pre-event technical inspection. Further, discovery of a delay device, adjustable or non-adjustable, at any time following pre-event technical inspection will be grounds for immediate disqualification from the event, loss of all NHRA Heritage Drag Racing Series points for the season, and suspension from all NHRA Championship Drag Racing events for remainder of season. Additional penalties may be imposed at the discretion of NHRA.

**8:3 IGNITION**

No programmable or digital ignition systems allowed in any classes. Each car in competition must have a positive-action on/off switch, capable of de-energizing the entire ignition system, in good working order, located within easy reach of the driver. "Momentary contact" switch prohibited. Magneto "kill button"-type switches are prohibited.

All ignition systems and/or components wiring harnesses and attachments must utilize those supplied by the ignition system manufacturer. The wiring harness must be used in an unaltered manner consistent with the manufacturer's installation and instruction books.

The use of any programmable multi-point rev limiter and/or a rate-of-acceleration rpm limiter, either by themselves (i.e., MSD 7561) or integrated into the ignition system (i.e., MSD 7531), are prohibited in NHRA competition.

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### **8:4 MASTER CUTOFF**

Mandatory when battery is relocated, or as outlined in Class Requirements. An electrical power cutoff switch (one only) must be installed on the rearmost part of each vehicle and be easily accessible from outside the car body. This cutoff switch must be connected to the **positive** side of the electrical system and must stop all electrical functions including magneto ignition. The off position must be clearly indicated with the word "OFF." If switch is "push/pull" type, "push" must be the action for shutting off the electrical system, "pull" to turn it on. Any rods or cables used to activate the switch must be minimum 1/8-inch diameter. Plastic or keyed switches prohibited. Switches and/or controls must be located behind rear wheels on rear-engine dragsters.

### **8:5 STARTERS**

All cars must be self-starting. Rollers and/or push starts prohibited.

### **8:6 TAILLIGHTS**

All vehicles except Nostalgia Top Fuel, Nostalgia Funny Car, A/Fuel, 7.0 Eliminator, AA/Gas Supercharged, and Jr Fuel, one functional taillight mandatory. Strobe, flashing, high intensity, laser, infrared, photo sensitive, or other light-emitting/receiving device prohibited. See also Class Requirements.

### **8:7 SWITCHES & BUTTONS**

All switches and/or buttons must be standard, mechanical connection type. Infrared, laser, retinal scan, fingerprint, light source, or any other non-mechanical-type switch and/or button prohibited in all NHRA classes.

### **8:8 SHIFT LIGHT**

Shift light may only be triggered by tachometer output or ignition output.

## **SUPPORT GROUP: 9**

### **9:1 COMPUTER**

The National Hot Rod Association has established its policy with regard to the use of onboard computers on race cars competing pursuant to the NHRA Rulebook. Except those computers installed on stock vehicles by the new-vehicle manufacturers for the proper operation of such vehicles, no vehicles may be equipped with computers that in any way affect the operation of the vehicle. Per Class Requirements, OEM or OEM-type electronic fuel injection permitted. All related wiring, sensors, etc. must be identifiable to the tech inspector. A computer is defined as any device (electrical, mechanical, pneumatic, hydraulic, etc.) that activates any function of, or in any way affects the operation of, the vehicle based on measurement, sensing, processing, etc. of any data related to the performance of the vehicle. For non-OEM data recorder applications, the transmission or display of any vehicle performance data gathered or processed by the data recorder, to the driver or any remote location during the run, is prohibited. No devices may at any time alert the driver as to his track position or his elapsed time. (see 9:2 DATA RECORDERS).

During NHRA competition, no portable computer (e.g., laptop, PDA, Palm Pilot, programmer, etc.) may be installed or located in a vehicle at any point beyond the staging area ready line. All functions or values must be pre-set prior to this point.

Per Class Requirements, timed or rpm-activated shifters and the like permitted, but all automated functions must be preset before the run. Timer may display only timer amount dialed in; analog or digital display permitted. Devices may be removed at any time at discretion of NHRA Technical Services Department.

The use and/or installation of any ride-height sensors and accompanying hardware is prohibited on any vehicle in competition.

### **9:2 DATA RECORDERS**

Data recorders may be used to record functions of a vehicle so long as they do not activate any function on the vehicle. All data recorders manufactured after Jan. 1, 2006, must be NHRA-accepted. Data recorder may not be activated by the throttle, clutch, brake, mechanisms, etc., nor by the Christmas Tree, radio transmitters, sensing of wheel speed, inertia, laser device, or transmission of track position. The data recorder must be activated by a separate switch that requires a separate action (with respect to all other devices) by the driver or crewperson. The switch may neither be connected to nor be incorporated into

any other device or component. Fifth-wheel sensing devices prohibited on all vehicles (includes wheelie-bar wheels). All lines sensing flow, pressure, etc. of fuel or oil must be metallic or steel braided. For non-OEM data recorder applications, the transmission or display of any vehicle performance data gathered or processed by the data recorder, to the driver or any remote location, during the run, is prohibited. Data may be reviewed (printout, replay, etc.) only after the run.

Any device (mechanical, hydraulic, pneumatic, electrical, optical, etc.) other than OEM-type that assists in determining track location of the competitor's own vehicle or opponent's vehicle is prohibited. Only OEM-style mirrors, mounted in conventional fashion, permitted.

Discovery of a device that displays, indicates, or transmits "on track," "track location," or "elapsed time"-type data will be grounds for immediate disqualification from the event, loss of all NHRA Heritage Drag Racing Series or Lucas Oil Drag Racing Series points for the season, and suspension from all NHRA Championship Drag Racing events for remainder of season. Additional penalties may be imposed at the discretion of NHRA.

### 9:3 FIRE EXTINGUISHER

An onboard fire extinguisher system is mandated under certain Class Requirements. In other classes, it is recommended that each contestant and/or his or her crew have a loaded, serviceable fire extinguisher and a fire blanket in their possession, carried in the tow vehicle, race car, or otherwise available for immediate use. Dry chemical or CO<sub>2</sub>-type extinguishers, 2 1/2-pound minimum size, are recommended. When installed in a race car, must be mounted in a secure manner; use of flip-open-type clamps prohibited.

When required, Nostalgia Top Fuel, Nostalgia Funny Car, fire extinguishing system must meet SFI Spec 17.1 and be installed and utilized per manufacturer's installation requirements.

For all other vehicles, onboard fire extinguisher systems must be manually controlled Cold Fire 302, Fire X plus, Halon FE1211 or 1301 or FM200, or F500, and mounted per manufacturer's specifications with the primary nozzle(s) directed in an attempt to protect the driver. Other agents, classified on the EPA SNAP list as Acceptable Total Flooding Agents (Feasible for Use in Occupied Areas) and NHRA accepted, may be used. Bottles and lines must be mounted above the bottom of the adjacent framerails. Fire bottle activation cables must be installed inside framerail where cables pass engine/bellhousing area. Bottles must be DOT-approved or meet SFI Spec 17.1 and permanently mounted (no hose clamps or tie wraps). In the case of more than one bottle, each bottle must have its own distribution tubing and nozzles. The use of bottles, nozzles, or tubing other than that recommended by the manufacturer is prohibited. Upon activation of the system, the contents of the bottle(s) must be totally discharged; partial-discharge systems prohibited. The bottles must be mounted in such a manner that should an explosion or failure of any mechanical component of the vehicle occur, the bottles will be protected from flying parts. When installed in/on a race car, must be mounted in a secure manner; use of flip-open-type clamps, hose clamps, tie wraps, snaps, etc. prohibited. They should be protected from excessive temperature and mounted rigidly to the vehicle. Remote cables must be metallic (plastic or plastic-wrapped cables prohibited) and installed so they are protected in the event of an upset or collision. Follow the manufacturer's recommendations regarding installation, especially on bend radius, and protection from crimping or kinking. All fire systems must use steel lines, steel or aluminum distribution nozzles, and must be equipped with a pressure gauge. **All bottles must be identified with a gross loaded weight figure.** It is the responsibility of the competitor to weigh the bottle prior to each event.

### 9:4 JACKS AND JACK STANDS

No work may be done under any car in the pit area while the car is supported by only one jack. Additional safety devices such as jack stands are mandatory to provide additional protection in the event of jack failure. Failure to observe this rule is grounds for immediate disqualification. Nostalgia Top Fuel, Nostalgia Funny Car, and A/Fuel Dragster, must use cradles/jack stand devices that attach to the frame (conventional jack stands prohibited) when working on and/or running engine in pits with vehicle in a raised position. Jack-stand devices must be constructed as to provide a minimum ground clearance of 7 inches as measured from the ground to the outer diameter limit of the rear tires.

### 9:5 LIFTING DEVICES

Any form of mechanical, hydraulic, or other leverage-type device for raising a car's driving wheels off the starting-line surface is prohibited.

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### 9:6 OVERSIZE TRAILERS

Contestants using semi-tractor/trailer equipment (18-wheelers) must close lift-gate-type rear doors after unloading/loading procedures are completed. Also, all extended ramps must be stowed after use. Maximum width of trailer and awning combination not to exceed 22 feet.

### 9:7 PRESSURIZED BOTTLES

All pressurized bottles, excluding SFI Spec 17.1 Onboard Fire Extinguishing Systems (i.e., air, CO<sub>2</sub>, nitrous, etc.) used for air shifters, clutches, etc. must meet, and be engraved as meeting, DOT-1800 pound minimum Spec. All bottles must be securely mounted (hose clamps and/or tie wraps prohibited). Any pressurized bottle used for pneumatic operation must be filled with compressed air, nitrogen, or CO<sub>2</sub>. All other materials prohibited.

### 9:8 PUSH BARS

Push bar must be designed to prevent push car from riding up on rear wheel of open-wheeled race cars. Push or tow starts prohibited.

### 9:9 TELEMETRY DEVICES

Telemetry transmission of certain Professional-category vehicle parameters intended for the sole purpose of national event television coverage, which meet applicable NHRA criteria, permitted. Application for telemetry transmission(s) must be submitted in writing to NHRA Technical Services, National Headquarters, Glendora, Calif. Final, written authorization from applicable event Technical Services Crew Chief mandatory. Discovery of any unauthorized telemetry device, or unauthorized transmission of data, in any category, will result in disqualification from the event, loss of all season points, plus suspension of competition privileges for the remainder of the season. Additional penalties may be imposed at the sole and absolute discretion of NHRA.

### 9:10 TOW VEHICLE

Any vehicle used as a tow vehicle must have the driver's competition number displayed on the tow vehicle. Limit of six crewmembers in tow or push vehicle. Crewmembers must be inside cab or completely inside bed or truck, not to be seated on tailgate, standing on running boards, or otherwise not completely inside vehicle. Generators or other external power supplies, extension cords, support equipment other than the tow vehicle, etc. are prohibited outside the pit area. Once a race vehicle leaves the pit, it must be in race-ready condition, and the only support equipment permitted is the tow or push vehicle until the vehicle returns to the assigned pit area; exceptions for engine start-up equipment as needed.

### 9:11 TWO-WAY RADIO COMMUNICATION

The use of two-way radios for the purpose of voice communication between driver and crew is permitted in all classes. Telemetry may in no way be used for gathering data or performing control functions. When radio is mounted in driver's compartment, must be secured in holder by some type of strap or device when car is moving.

### 9:12 WARM-UPS

It is mandatory that a driver be seated in the car in the normal driving position anytime the engine is running, unless coupler or driveline is removed from vehicle. **The practice of transbrake testing, converter stalls, line-loc testing, and/or transmission warming is prohibited in all classes, in all areas of the event except in starting-line approach areas beyond staging, or unless vehicle is on jack stands. Non-compliance is grounds for disqualification or such other and/or action as deemed appropriate by NHRA.**

**TOP FUEL & FUNNY CAR:** When starting these categories of vehicles in the pit area, the car must be fully within the assigned space. Race teams may not back car out of the pit space to start the engine. **NO PART OF THE REAR TIRE MAY EXTEND PAST THE END OF THE ASSIGNED PIT SPACE.** When occupying the "end spot" pit space or if the neighboring trailer does not completely shield your car, it is mandatory to park a tow truck/car alongside the race car while the engine is running.

## DRIVER: 10

### 10:1 APPAREL

Each member of a participant crew must be fully attired when present in the staging, starting, and competition areas of the racetrack. Shoes are mandatory. Shorts, bare legs, tank tops, or bare torsos are prohibited when driving in any class. See Class Requirements.

### 10:2 APPEARANCE

Vehicles participating in drag racing events must be presentable in appearance at all times; those considered improperly prepared may be rejected by the technical inspector. The appearance of personnel attending contestant vehicles is equally important and is subject to the same considerations.

### 10:3 ARM RESTRAINTS

Where mandated by Class Requirements, arm restraints must be worn and adjusted in such a manner that driver's hands and/or arms cannot be extended outside of roll cage and/or framrails. Arm restraints shall be combined with the driver restraint system such that the arm restraints are released with the driver restraints. Refer to manufacturer for instructions.

### 10:4 CREDENTIALS

Each driver of a vehicle entered in any event conducted at an NHRA member track must have a valid state or government-issued driver's license beyond a learner's-permit level or NHRA Competition License subject to inspection by officials at any time.

In addition, a current NHRA membership is required for participation in any divisional or national NHRA-sanctioned event, obtaining a new permanent competition number or renewing a permanent competition number, and obtaining a new competition license or renewing an existing competition license.

All NHRA competition license applicants must be at least 16 years of age; minimum age for any Professional-category applicant is 18. A 17-year-old may apply for a Professional-category license if all the following criteria are met: 1) applicant's 18th birthday falls during the regular NHRA national event schedule; 2) applicant was an active participant in another NHRA license category (9.99 E.T. or quicker) the previous year; 3) applicant holds a valid NHRA competition license (9.99 E.T. or quicker).

Drivers of the following type vehicles are mandated to have a valid NHRA competition license.

#### Heritage License

Group 1	Type/Class	Group 2	Type/Class
A/Fuel	3A	Nostalgia Eliminator 1-3	4A-4B
Junior Fuel A	3A	A-D Gas	4B
Junior Fuel B	3A	Hot Rod Eliminator	4A-4B
AA/Gas Supercharged	3B		
7.0 Eliminator	3A-3B		

Type A= Wheelbase over 125"  
Type B= Wheelbase up to 125"

Drivers with Top Fuel or TAD license allowed to compete in N/TF. Drivers with Funny Car or TAFC license allowed to compete in N/FC.

License applicants for Nostalgia Top Fuel and Nostalgia Funny Car must complete two runs at or above the requested class(es)' minimum e.t. and mph standard. The class standards are:

Class	Standard
Nostalgia Top Fuel	two runs of 6.99 or quicker
Nostalgia Funny Car	two runs of 6.99 or quicker

All license applicants are required to have a physical examination before making any test runs. Physical forms and license applications are available from NHRA headquarters or your division office. (Physical expires every two years. License expires with physical.) Likewise, the vehicle used for test runs must be current with respect to rules and regulations for the class/license being applied for.

### WHEEL-DRIVEN CATEGORIES

A new driver who has not previously held a competition license will be given a special cockpit-orientation (blindfold) test, and will be required to make a minimum of six runs under the observation of two licensed drivers and a designated NHRA official. Witnessing drivers must hold a competition license equal to or greater than one being applied for. A driver who is upgrading or crossgrading (bodied category to/from open-wheel category) is required to take the cockpit-orientation test and make three runs (per license application instructions). A

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licensed driver may drive a car classed under his or her license limitation. It is prohibited to cross over to or from the long wheelbase category to short wheelbase, dragster to bodied, motorcycle to car, etc. unless specifically licensed for each.

### **10:5 DRIVER RESTRAINT SYSTEMS**

A quick-release, 3-inch shoulder harness meeting SFI Spec 16.1 is mandatory in all cars in competition required by the rules to have a roll bar or a roll cage. (Permitted in all other classes.) A 3-inch SFI Spec 16.5 driver restraint system is also acceptable wherever an SFI Spec 16.1 is mandatory or permitted. Driver restraint system must be clearly labeled as meeting SFI Spec 16.1 and be dated by manufacturer. SFI Spec 16.1 Y-type belts prohibited. System must be updated at two-year intervals from date of manufacture. All seat-belt and shoulder harness hardware must be originally designed to be used with each other and produced by the same manufacturer. For harness installation, see illustration. Cars using OEM or OEM-type seat may route crotch strap in front of seat instead of through seat. Only units that release all five attachment points in one motion are permitted. When arm restraints are worn with a restraint system that utilizes a "latch lever," a protective cover must be installed to prevent arm restraint from accidentally releasing the latch lever. Protective cover not required if system utilizes "duck-bill" latch hardware. All harness sections must be mounted to the frame, crossmember, or reinforced mounting, and installed to limit driver's body travel both upward and forward. Seat belts may not be wrapped around lower framerails. Under no circumstances are bolts inserted through belt webbing permitted for mounting. Check manufacturer's instructions.

### **10:6 HEAD PROTECTOR**

In any car where a roll bar or roll cage is installed, a padded head protector must be provided at the back of the driver's head and constructed in an attempt to prevent whiplash upon impact. The roll bar or cage must be padded wherever it may come in contact with the driver's helmet. Adequate padding should permit minimum 1/4-inch compression or meet SFI Spec 45.1. The use of weather stripping and similar thin or low impact resisting materials is prohibited. A padded roll bar or cage alone is not acceptable as a padded head protector unless it is within 4 inches of the driver's helmet. A seat that incorporates a reinforced head rest is permitted.

### **10:7 HELMETS AND GOGGLES**

As outlined under Class Requirements, drivers in all classes, including motorcycles, must wear a helmet meeting Snell or SFI Specifications.

SFI Spec 31.1A = Snell SA, open-face helmet

SFI Spec 31.2A = Snell SA full-face helmet

SFI Spec 41.1A = Snell M, open-face helmet

SFI Spec 41.2A = Snell M full-face helmet

**Full-face helmet mandatory on all cars 9.99 or quicker.** See individual Class Requirements for additional requirements. **Shield mandatory 7.49 and quicker.**

Drivers of cars 13.99 or quicker must use a helmet meeting Snell M2000, M2005, M2010, SA200, SA2005, SA2010, or SFI 31.1A, 31.2A, 31.1/2005, 41.1A, 41.2A, or 41.1/2005 Specs. Drivers in supercharged, front-engine, open-bodied cars and Funny Cars must wear a helmet meeting Snell SA2000, SA2005, SA2010 or SFI 31.2A, or 31.1/2005 Specs. See Class Requirements.

Structural modifications to helmet/shield are prohibited. Cutting of helmet or helmet shield prohibited. Helmet must remain as manufactured, except for paint scheme/graphics and permitted non-structural driver modifications to helmet shield as set forth below. Taping or similar modifications to the helmet shield made by the driver that reduce the driver's field of vision, and are deemed safe by driver in the driver's judgment, are permitted at this time so long as the driver can demonstrate to technical inspectors that the purpose of the modification is to reduce distraction in the driver's field of vision. By using such a modification to the helmet shield, the driver acknowledges and agrees that the driver deems such modification safe in the driver's judgment consistent with the driver's obligations in Section 1 (NHRA Rulebook), Participant Agreements and Administrative and Procedural Rules, set forth above, and that the modification does not impair or interfere with the safe operation of the driver's vehicle. See General Regulations 7:8.

**NHRA Helmet Expiration Dates**

<b>Label</b>	<b>Expires</b>	<b>Label</b>	<b>Expires</b>
Snell 2000	1/1/2012	SFI 41.2A	1/1/2014
Snell 2005	1/1/2017	SFI 31.1/2005	1/1/2017
Snell 2010	1/1/2022	SFI 41.1/2005	1/1/2017
SFI 31.1A	1/1/2014	SFI 24.1 (JDRL only)	1/1/2015
SFI 31.2A	1/1/2014	SFI 24.1/2005	1/1/2017
SFI 41.1A	1/1/2014		

**10:8 NECK COLLAR/HEAD AND NECK RESTRAINT DEVICE/SYSTEM**

Neck collar must be commercially produced and designed for racing. Two different types of collars are commercially available: a full 360-degree “donut” type or a pull-together “horseshoe” type. See Class Requirements for type specified. Modification according to manufacturer’s recommendations to fit helmet and driver’s neck/shoulder spacing permitted. Must be worn as per manufacturer’s recommendations. Must meet SFI Spec 3.3 as per class rules.

Neck collar meeting SFI Spec 3.3 mandatory in all open-bodied cars and any car running 9.99 (\*6.39) or quicker or cars exceeding 135 mph.

**A head and neck restraint device/system is mandatory for any vehicle running 200 mph or faster or by Class Requirements. Beginning Jan. 1, 2012, a head and neck restraint device/system is mandatory for any vehicle running 7.49 (\*4.49) or quicker or by Class Requirements.**

When using a head and neck restraint device/system, at all times that the driver is in the race vehicle, from the ready line until the vehicle is on the return road, driver must properly utilize the SFI-approved head and neck restraint device/system, including connecting the helmet as required for full functionality of the device. The device/system must meet SFI Spec 38.1 and must display a valid SFI label. The head and neck restraint device/system, when connected, must conform to the manufacturer’s mounting instructions, and it must be configured, maintained, and used in accordance with the manufacturer’s instructions.

A head and neck restraint device/system may be used with or without a neck collar.

**10:9 OCCUPANTS**

No more than one person is permitted in any car during any run, except one co-driver permitted in 14-second and slower E.T. cars; co-driver must be a minimum of 16 years old. All occupants of tow vehicles must be inside of car or pickup in a seated position while tow vehicle is in operation. Any time a car is started, whether in the pits, staging lanes, with self-starter, or anywhere else on the race facility, a competent driver must be in the driver’s seat unless coupler or driveline is removed. Non-compliance is grounds for disqualification from the event.

**10:10 PROTECTIVE CLOTHING**

“Protective Clothing” includes suit (one-piece suit or jacket and pants); head sock; gloves; and boots or shoes.

Driver must meet all Protective Clothing requirements stated under Class Requirements for vehicle being driven.

SEE Class Requirements.

Protective Clothing requirements stated are minimum requirements; drivers are free to upgrade Protective Clothing.

Each item of Protective Clothing must meet applicable specifications. Each item must be properly labeled and in good condition. All jackets/pants or suits for SFI Spec 3.2A/15 or 3.2A/20 must be recertified on a five-year interval.

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All gloves must have a full layer of flame-retardant material inside the glove. Leather palm gloves without a full layer of flame-retardant material separating leather from driver's hand prohibited.

An SFI 3.3 head sock or SFI 3.3 skirted helmet is required on all open-bodied cars or all cars 7.49 and quicker, where a neck collar is required but has been substituted with a head and neck restraint device. See Class Requirements.

If no specific Protective Clothing requirements are stated for a particular class, then the minimum requirements are as follows: full-length pants; short- or long-sleeved shirt; closed shoes; and socks. No shorts. No bare legs. No bare torsos. No tank tops. No open-toe or open-heel shoes or sandals. Synthetic clothing not recommended.

### **10:11 SEAT BELTS**

All cars not required by Class Requirements to use SFI 16.1 driver restraint systems must be equipped with an accepted quick-release-type driver seat belt. (All cars in competition requiring a roll bar or a roll cage, or as outlined by Class Requirements, require a five-point, 3-inch-wide SFI 16.1 restraint system. See 10:5 DRIVER RESTRAINT SYSTEMS.) Belts must be securely fastened to the frame, crossmember, or reinforced mounting so that all fittings are in a direct line with the direction of pull. Seat belts may not be wrapped around lower framerrails. Steel castings of the type recommended by FAA or U-bolt-type mounts are permitted. If used for installation, flat steel plates must be a minimum of 1/4-inch thickness and have rounded edges to prevent cutting seat belts. Under no circumstances can belts be installed with bolts through webbing. In all cars with fiberglass floors, a crossmember (minimum 2-inch x 2-inch x .083-inch wall thickness square tubing) must be installed between framerrails for proper driver's seat-belt installation.

## **GENERAL: 11**

### **11:1 ADVERTISING AND OTHER MATERIAL/DISPLAYS**

NHRA reserves the right to regulate any advertising or other material that is present on site at any NHRA event including without limitation any material appearing on any participant, on the body or any other visible part of any vehicle or transporter participating in NHRA events including on support vehicles, in any pit area, in any area of the dragstrip from the staging lanes to the end of the dragstrip, and any item or material on site that may constitute a product placement. Participants and vehicles may be excluded from competition and from event facilities if, in NHRA's discretion, any advertising or other material displayed on a person, race or support vehicle, or in a pit area or otherwise is not in the best interests of NHRA and the sport of drag racing, and/or is or may be in conflict with any applicable law. Moreover, NHRA will require compliance with all guidelines and requirements of any telecaster for events that will be telecast. In addition, NHRA may require certain indicia to be visible on a vehicle as a condition of participation in competition if NHRA determines that such requirement is in the best interests of NHRA and the sport of drag racing.

By way of illustration and without limitation, online gambling is an activity deemed by NHRA to be not in the best interests of NHRA and the sport of drag racing, and an activity that NHRA will not allow to be displayed or advertised on site at any NHRA event or in connection with NHRA in any manner whatsoever. Websites that allow gaming that is entirely free and for fun may be permitted pursuant to further guidelines that may be requested from NHRA. Violation of any part of any such guideline will be treated as violation of the NHRA Rulebook.

# SFI SPECIFICATIONS

Following is a list of all SFI Specifications applicable to NHRA Championship Drag Racing, with respective expiration periods. An item with an expiration period must be returned to the original manufacturer for inspection and recertification at the end of this period before it can be permitted for further use at an NHRA event.

SFI SPEC DESCRIPTION	EXPIRATION PERIOD
1.1 Single-Disc Clutch & Flywheel Assembly. . . . .	2 years
1.2 Multi-Disc Clutch & Flywheel Assembly E.T. through Comp, PS . . . . .	2 years
1.3 Multi-Disc Clutch and Flywheel Assembly TAD, TAFC, TF, and FC . . . . .	1 year
1.4 Multi-Disc Clutch and Flywheel Assembly TAD and TAFC . . . . .	1 year
1.5 Multi-Disc Clutch Assembly (with Power Adders) . . . . .	1 year
2.1 Rear-Engine Dragster Chassis Spec, TAD (Includes Wing and Rear-End Mounting) . . . . .	1 year
2.2B Front-Engine Dragster Chassis Spec, NTF, TAD . . . . .	1 year
2.3N Rear-Engine Dragster Chassis Spec, TF (Includes Wing and Rear-End Mounting) . . . . .	1 year
2.4B Front-Engine Dragster Chassis Spec, Advanced E.T., A/D, B/D, C/D, A/ED, B/ED, A/ND, & B/ND . . . . .	3 years
2.5B Rear-Engine Dragster Chassis Spec, Adv. E.T. . . . .	3 years
A/D, B/D, C/D, D/D, A/ED, B/ED, C/ED, & D/ED (Does Not Include Wing or Rear-End Mounting) . . . . .	3 years
2.6 Front-Engine Dragster Chassis Spec, 7.50 and Slower . . . . .	3 years
2.7B Rear-Engine Dragster Chassis Spec, 7.50 and Slower. . . . .	3 years
3.2A/1 Jacket (and Pants Where Applicable)	
3.2A/5 Jacket (and Pants Where Applicable)	
3.2A/15 Jacket and Pants or Suit. . . . .	5 years, including the year on the tag
3.2A/20 Driver's Suit . . . . .	5 years, including the year on the tag
3.2A/25 Driver's Suit . . . . .	5 years, including the year on the tag
3.2A/30 Driver's Suit . . . . .	5 years, including the year on the tag
3.3 Neck Collar and Head Sock	
3.3/1 Gloves, Shoes	
3.3/10 Helmet Skirt	
3.3/5 Gloves, Shoes, Boots	
3.3/15 Gloves, Boots	
3.3/20 Gloves, Boots	
4.1 Automatic Transmission Shield, Rigid . . . . .	5 years
4.1 Automatic Transmission Shield, Flexible . . . . .	2 years
6.1 Flywheel Shield, Spec 1.1 & 1.2 (2-Disc Max, or 3-Disc, 8-inch dia. Max) . . . . .	5 years
6.2 Flywheel Shield, Spec 1.2, 1.3, 1.4 & 1.5 Clutch (Check with Manufacturer; May Be Only 1 Year) . . . . .	2 years
6.3 Flywheel Shield, Spec 1.2, 1.3 & 1.4 Clutch . . . . .	2 years
(Check with Manufacturer; May Be Only 1 Year)	
7.1 Lower Engine Ballistic/Restraint Device . . . . .	1 year
7.2 Lower Engine Ballistic/Restraint Device . . . . .	5 years
9.1 Flywheel Blanket, Spec 1.1 & 1.2 (2-Disc Max) Clutch . . . . .	2 years
10.1E Altered & F/E Dragster Chassis Spec, TAFC. . . . .	1 year
10.2 Altered Chassis Spec, 6.00 to 7.49 . . . . .	3 years
Adv. E.T., AA/A, BB/A, AA/AT, BB/AT, A/A, B/A . . . . .	3 years

<b>SFI SPEC DESCRIPTION</b>	<b>EXPIRATION PERIOD</b>
10.3 Altered Chassis Spec, 7.50 and slower . . . . .	3 years
10.4 Side-Steer Roadster Chassis Spec., 9.99 and quicker . . . . .	3 years
10.5 Funny Car Chassis Spec, FC . . . . .	1 year
14.1 Supercharger Restraint (Roots) . . . . .	2 years
14.2 Supercharger Restraint (Roots) . . . . .	2 years
14.2.1 Supercharger Restraint (Screw-Type) . . . . .	2 years
14.3 Supercharger Restraint (Top Fuel) . . . . .	2 years
14.4 Valve Cover Restraint . . . . .	2 years
15.1 Rear-Drive Wheels, TAD, TAFC, and PS	
15.2 Front Wheels	
15.3 Rear-Drive Wheels, TF and FC	
15.4 Rear-Drive Wheels, TF and FC . . . . .	2 years
16.1 3-Inch Driver Restraint System . . . . .	2 years
16.5 3-Inch Driver Restraint System . . . . .	2 years
17.1 Onboard Fire Extinguishing Systems . . . . .	2 years
18.1 Harmonic Balancer	
23.1 Manifold Burst Panel	
24.1 Youth Full-Face Helmet (for JDRL only) . . . . .	1 year
25.1E SFI Full Body Chassis Spec, Pro Stock . . . . .	1 year
Adv. E.T. . . . .	3 years
25.2 SFI Full Body Chassis Spec, 3,200-Pound Maximum . . . . .	3 years
25.3 Full-Bodied Car, Tube Chassis Roll Cage 6.50-7.49, 3,600-Pound Maximum . . . . .	3 years
25.4 Full-Bodied Car, Tube Chassis Roll Cage 7.50-8.49, 3,600-Pound Maximum . . . . .	3 years
25.5 Full-Bodied Car, with OEM Frame 7.50-8.49, 3,600-Pound Maximum . . . . .	3 years
27.1 Window Net (Mesh) . . . . .	2 years
28.1 Fuel Cell: Pro Stock, Pro Modified, Advanced E.T.	
29.1 Automatic Transmission Flexplate . . . . .	3 years
30.1 Automatic Transmission Flexplate Shield . . . . .	5 years
31.1/2005 Full-Face Helmet . . . . .	exp. 1/1/2017
31.1A Open-Face Helmet (Snell SA Rating) . . . . .	exp. 1/1/2014
31.2A Full-Face Helmet (Snell SA Rating) . . . . .	exp. 1/1/2014
34.1 Supercharger, Screw-Type . . . . .	3 years
38.1 Head and Neck Restraint System	
40.1/1, 40.1/2 Motorcycle Rider's Suit	
41.1/2005 Open-Face Helmet . . . . .	exp. 1/1/2017
41.1A Open-Face Helmet (Snell M Rating) . . . . .	exp. 1/1/2014
41.2A Full-Face Helmet (Snell M Rating) . . . . .	exp. 1/1/2014
42.1 Steering-Wheel Hub	
43.1 Driveshaft	
45.1 Roll-Bar/Cage Padding	
49.1 Top Fuel Rear Wing Assembly . . . . .	1 year
49.2 Top Fuel Front Wing Assembly . . . . .	1 year
54.1 Nonflammable, Thermal Barrier/Fire Extinguishing Coatings	

### NHRA E.T. QUICK REFERENCE CHART

Y = Required C = Convertibles

Number Refers to General Regulations

**In no way is this Quick Reference Chart intended to supersede or replace the current NHRA Rulebook**

Quarter-Mile e.t.s	6.00 to 7.49	7.50 to 9.99	10.00 to 10.99	11.00 to 11.49	11.50 to 13.99	14.00 & Slower
Aftermarket Rear Axles	Y	Y	Y	2:11	2:11	2:11
Arm Restraints (Open Cars)	Y	Y	Y	Y	10:3 11.99	10:3
Auto Trans Flexplate (SFI 29.1)	Y	Y	2:14	2:14	2:14	2:14
Auto Trans Locking-Type Dipstick	Y	Y	Y			
Auto Trans Reverse Lockout	Y	Y	Y	Y	Y	Y
Bellhousing (SFI 6.1/6.2)	Y	Y	Y	Y	2:10	2:10
Driver Restraint System (SFI 16.1)	Y	Y	Y 10:5	Y 10:5	C 10:5	10:5 10:11
Driveshaft Loop	Y	Y	Y	Y	2:4	2:4
Electric 16.00 & Quicker	Y	Y	Y	Y	Y	2:4
Flexplate Shield (SFI 30.1)	Y	Y	2:14	2:14	2:14	2:14
Flywheel/Clutch (SFI 1.1/1.2)	Y	Y	Y	Y	2:5	2:5
Harmonic Balancer (SFI 18.1)	Y	Y	Y	Permitted	Permitted	Permitted
Helmet (Snell 2000 or SFI 41.1A min.)	Y	Y	Y	Y	Y	10:7
Liquid Overflow	Y	Y	Y	Y	Y	Y
Master Electrical Cutoff	Y	Y	8:4 135 mph	8:4	8:4	8:4
Neck Collar	Y	Y	10:8	10:8	10:8	10:8
NHRA Competition License	Y	Y	10:4	10:4	10:4	10:4
NHRA Chassis Sticker	Y	Y	4:4	4:4	4:4	4:4
Padding Roll Bar/Cage	Y SFI	Y SFI	Y	Y	10:6 135 mph	10:6 135 mph
Parachute	Y	Y	4:8 150 mph	4:8	4:8	4:8
Pressurized Bottles DOT (1800)	Y	Y	Y	Y	Y	Y
Protective Clothing	Y	Y	Y	Y	10:10	10:10
Roll Bar			Y	Y	C/13.49	4:10
Roll Cage	Y	Y	Y 135 mph	4:11	4:11	4:11
SFI Chassis Specification	Y	4:4 180 mph	4:4	4:4	4:4	4:4
Supercharger Restraints	Y	1:11	1:11	1:11	1:11	1:11
Taillight	Y	Y	Y	Y	Y	Y
Transmission Shield (SFI 4.1)	Y	Y	Y	2:14	2:14	2:14
Window Net (Full-Bodyed Cars)	Y	Y	6:3 10:3	6:3 10:3	6:3 10:3	6:3 10:3

## Handy Charts and Formulas

• **Cubic Inch Displacement**

CID = bore x bore x stroke x 0.7854 x number of cylinders

• **Horsepower** = (RPM x torque)/5,252

• **Torque** = (5,252 x HP)/RPM

• **Valve Area** = valve diameter x valve diameter x .7854

• **Rod Ratio** = rod length/crank stroke length

• **Average Piston Speed** = crank stroke x RPM/6

• **Rear Gear Ratio** = (RPM at finish line x tire diameter)/(MPH x 336)

• **Volume (cc's) of deck clearance**

= bore x bore x 12.87 x depth of deck clearance

• **Volume (cc's) of head gasket**

= bore x bore x 12.87 x thickness of head gasket

**Compression =**  $\frac{\text{comb chamber cc's} + \text{gasket cc's} + \text{deck CI cc's} + (\text{displacement} \times *2.0483)}{\text{Ratio}}$

**Ratio** =  $\frac{\text{comb chamber cc's} + \text{gasket cc's} + \text{deck CI cc's}}{\text{displacement}}$

\* 2.0483 for 8-cyl.   \* 2.7311 for 6-cyl.   \* 4.0967 for 4-cyl.

• **Circumference** =  $\pi$  x diameter

• **Area of circle** =  $\pi$  x radius<sup>2</sup>

• **Volume of cylinder** =  $\pi$  x radius<sup>2</sup> x height

$\pi = pi$     $\pi = 3.1416$     $radius^2 = radius \times radius$

**Weights:**

<b>Oil</b>	1 gallon = 7.0 pounds	1 quart = 1.75 pounds
<b>Gas</b>	1 gallon = 6.2 pounds	1 quart = 1.55 pounds
<b>Water</b>	1 gallon = 8.4 pounds	1 quart = 2.10 pounds

## Metric and Standard Conversion

The metric system is a decimal system of measurements used in scientific work for measuring length, weight, and volume. These basic units are modified with prefixes to express the units as larger or smaller quantities. Some of the common prefixes are:

Kilo: one thousand (1000)

Deci: one-tenth (0.1)

Centi: one-hundredth (0.01)

Milli: one-thousandth (0.001)

Micro: one-millionth (0.000001)

**Length**

1 kilometer (km) = 1,000 meters = 3,280.83 feet = .6215 mile

1 meter (m) = 100 centimeters = 39.37 inches = 1.09 yards

1 decimeter (dm) = 3.937 inches

1 centimeter (cm) = .3937-inch

1 mile = 1.609 kilometers

1 inch = 2.54 centimeters

1 yard = .91 meters

1 inch = 25.4 millimeters

**Mass**

1 kilogram (kg) = 1,000 grams (g) = 2.2045855 pounds

1 pound = 453.6 grams      1 ounce = 28.35 grams

1 gram = 1,000mg

kilograms x 2.20 = pounds      pounds / 2.20 = kilos

**Volume**

1 liter (l) = 1,000 cubic centimeters (cc) = 61.025 cubic inches

1 cubic inch = 16.387 cubic centimeters