



# NHRA Exhibition Vehicle Rulebook Supplement

## Revision History

Original Release: **12/14/2017**, Deleted Top Fuel Harley section and moved it to the NHRA Rulebook, Deleted Drag Racing Experience powered by Doug Foley and added Pure Speed Drag Racing to the Two-Seater Dragster Ride-Along Program

**2<sup>nd</sup> Release:** 1/3/2018, Remove SA2005 from approved helmet for Jet Trucks, Updated minimum helmet requirements for Two-Seater Dragster Ride Along Program from M2005 to M2010 and from SFI 31.1/2005 to SFI 31.1/2010

**3<sup>rd</sup> Release:** 2/19/2018, Added Jet Powered Dragster and Funny Car tire Goodyear D2934

**4<sup>th</sup> Release:** 2/19/2019, Added Mountain Motors, Updated Credentials for Jet Dragster, Jet Funny Car, and Jet Truck

**5<sup>th</sup> Release:** 3/7/2019, Updated Mountain Motor Pro Stock: Frame/Rollcage, Updated Jet Truck: Tires and Wheels/Tires

**6<sup>th</sup> Release:** 12/11/2019, Mountain Motor Pro Stock: Better definition of suspension, Prohibited inerters or damper inverter hybrids, Prohibited digressive spring devices and digressive springs.

**7<sup>th</sup> Release:** 2/14/2020, Mountain Motor Pro Stock: Permit inerters and damper inverter hybrids

**8<sup>th</sup> Release:** 2/17/2020, Mountain Motor Pro Stock: Maximum wicker height changed to 1".

**9<sup>th</sup> Release:** 8/20/2020, Clarifications to Two-Seater Dragster Ride Along Program

**10<sup>th</sup> Release:** 8/28/2020, Added Snell SA2020, M2020 and SFI 31.1/2015 helmets where necessary

## Exhibition Vehicle Rulebook Supplement

- 11<sup>th</sup> Release:** 6/18/2021, Added SFI 31.1/2020, SFI 41.1/2020 helmets and 8860 helmets
- 12<sup>th</sup> Release:** 11/5/2021, Added Modern Fuel Altered, Added Factory Experimental
- 13<sup>th</sup> Release:** 12/16/2021, Various changes to Factory X (see highlighted edits), removed duplicate language from Two-Seater Dragster Ride Along Program
- 14<sup>th</sup> Release:** 1/20/2022, Added NHRA Factory X Presented by Holley Logo, Added starter ring gear minimum diameter in Factory X (see highlighted edits)
- 15<sup>th</sup> Release:** 1/27/2022, Made changes to Exhibition Fuel Motorcycle involving ground clearance requirements, fork tuning arc requirements and brake rotor requirements (see highlighted edits)
- 16<sup>th</sup> Release:** 3/1/2022, Added Docol R8 everywhere chromoly tubing is used, Removed editing notes in Factory X and Exhibition Motorcycle Sections
- 17<sup>th</sup> Release:** 6/17/2022, Changes to Throttle Body and Wheelbase language in Factory X, Added to all motorcycles front fork suspension outer tubes must be a one-piece design requirement.
- 18<sup>th</sup> Release:** 8/15/2022, Removed all references to 2010 Snell and SFI Helmets, Added Twisted Motorsports Drag Racing Experience School to the Two-Seater Dragster Ride-Along Program
- 19<sup>th</sup> Release:** 12/8/2022, Reduced maximum number of engines from 3 to 2 in Jet Trucks and various grammatical corrections. All changes highlighted in yellow.
- 20<sup>th</sup> Release:** 2/15/2023, Expired License, Jet Dragster, Funny Cars, Trucks
- 21<sup>st</sup> Release:** 11/16/2023, Deleted Factory X and moved to the NHRA Rulebook. Added MMPS series logo.
- 22<sup>nd</sup> Release:** 3/13/2024, Added Pingel Top Fuel Motorcycle Drag Racing Series.
- 23<sup>rd</sup> Release:** 3/19/2024, Added Ford Performance Super Cobra Jet 1800 Exhibition Vehicle SCJ1800

## National Hot Rod Association

These exhibition vehicle supplemental programs, that incorporate technical and competition guidelines, have been established to accommodate specialized vehicles not currently defined within the NHRA Rulebook.

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

These rules and regulations are excerpts from, or supplements to the NHRA Rulebook. Participants and track officials should consult the current NHRA Rulebook for additional applicable information. Unless otherwise noted the requirements of the General Regulations section are applicable to all vehicles included in this supplement.

Exhibition Vehicle Rulebook Supplement

<b>MOUNTAIN MOTOR PRO STOCK .....</b>	<b>7</b>
<b>DESIGNATION</b>	<b>7</b>
<b>REQUIREMENTS &amp; SPECIFICATIONS</b>	<b>7</b>
<b>ENGINE: 1</b>	7
<b>DRIVETRAIN: 2</b>	9
<b>BRAKES AND SUSPENSION: 3</b>	9
<b>FRAME: 4</b>	10
<b>TIRES &amp; WHEELS: 5</b>	10
<b>INTERIOR: 6</b>	10
<b>BODY: 7</b>	11
<b>ELECTRICAL: 8</b>	12
<b>SUPPORT GROUP: 9</b>	12
<b>DRIVER: 10</b>	13
<b>DIESEL TRUCK.....</b>	<b>13</b>
<b>DESIGNATION</b>	<b>13</b>
<b>REQUIREMENTS &amp; SPECIFICATIONS</b>	<b>14</b>
<b>ENGINE: 1</b>	14
<b>DRIVETRAIN: 2</b>	14
<b>BRAKES &amp; SUSPENSION: 3</b>	14
<b>FRAME: 4</b>	14
<b>TIRES &amp; WHEELS: 5</b>	14
<b>BODY: 7</b>	15
<b>ELECTRICAL: 8</b>	15
<b>SUPPORT GROUP: 9</b>	15
<b>DRIVER: 10</b>	15
<b>TOP FUEL MOTORCYCLE.....</b>	<b>15</b>
<b>DESIGNATION</b>	<b>15</b>
<b>ENGINE: 1</b>	16
<b>DRIVETRAIN: 2</b>	16
<b>BRAKES AND SUSPENSION: 3</b>	16
<b>FRAME: 4</b>	17
<b>TIRES AND WHEELS: 5</b>	17
<b>SEAT: 6</b>	17
<b>BODY: 7</b>	18
<b>ELECTRICAL: 8</b>	18
<b>SUPPORT GROUP: 9</b>	18
<b>RIDER: 10</b>	18
<b>EXHIBITION FUEL MOTORCYCLE.....</b>	<b>19</b>
<b>REQUIREMENTS &amp; SPECIFICATIONS</b>	<b>19</b>
<b>ENGINE: 1</b>	<b>19</b>
<b>DRIVETRAIN: 2</b>	20
<b>BRAKES &amp; SUSPENSION: 3</b>	20
<b>FRAME: 4</b>	21
<b>TIRES &amp; WHEELS: 5</b>	21
<b>BODY: 7</b>	21
<b>RIDER: 10</b>	21

Exhibition Vehicle Rulebook Supplement

<b>EXHIBITION V-8 MOTORCYCLE.....</b>	<b>22</b>
<b>REQUIREMENTS &amp; SPECIFICATIONS</b>	<b>22</b>
ENGINE: 1	22
DRIVETRAIN: 2	23
BRAKES & SUSPENSION: 3	23
FRAME: 4	23
TIRES & WHEELS: 5	23
ELECTRICAL: 8	24
RIDER: 10	24
<b>JET-POWERED DRAGSTER &amp; FUNNY CAR.....</b>	<b>25</b>
<b>COMPETITION</b>	<b>25</b>
<b>REQUIREMENTS &amp; SPECIFICATIONS</b>	<b>25</b>
ENGINE: 1	25
BRAKES & SUSPENSION: 3	26
FRAME: 4	26
TIRES & WHEELS: 5	26
INTERIOR: 6	27
BODY: 7	27
SUPPORT GROUP: 9	27
DRIVER: 10	28
<b>JET TRUCK.....</b>	<b>30</b>
<b>COMPETITION</b>	<b>30</b>
<b>REQUIREMENTS &amp; SPECIFICATIONS</b>	<b>30</b>
ENGINE: 1	30
BRAKES & SUSPENSION: 3	31
FRAME: 4	31
TIRES & WHEELS: 5	32
INTERIOR: 6	32
BODY: 7	32
SUPPORT GROUP: 9	32
DRIVER: 10	33
<b>TOP FUEL HARLEY.....</b>	<b>35</b>
<b>Designation:</b>	<b>35</b>
<b>REQUIREMENTS AND SPECIFICATIONS</b>	<b>35</b>
ENGINE: 1	35
DRIVETRAIN: 2	36
BRAKES AND SUSPENSION: 3	36
FRAME: 4	36
TIRES AND WHEELS: 5	37
SEAT: 6	37
BODY: 7	37
ELECTRICAL: 8	37
SUPPORT GROUP: 9	38
RIDER: 10	38
<b>SPECIAL FUEL.....</b>	<b>38</b>
<b>REQUIREMENTS &amp; SPECIFICATIONS</b>	<b>39</b>
ENGINE: 1	39
DRIVETRAIN: 2	39

## Exhibition Vehicle Rulebook Supplement

BRAKES: 3	40
FRAME: 4	40
INTERIOR: 6	40
BODY: 7	41
ELECTRICAL: 8	41
SUPPORT GROUP: 9	41
DRIVER: 10	41
<b>EXHIBITION WHEEL-STANDER .....</b>	<b>42</b>
<i>REQUIREMENTS AND SPECIFICATIONS</i>	<b>43</b>
ENGINE: 1	43
DRIVETRAIN: 2	44
BRAKES & SUSPENSION: 3	44
FRAME: 4	44
TIRES & WHEELS: 5	45
INTERIOR: 6	45
BODY: 7	45
ELECTRICAL: 8	45
SUPPORT GROUP: 9	46
DRIVER: 10	46
<b>SPORTSMAN MOTORCYCLE .....</b>	<b>48</b>
<b>DESIGNATION</b>	<b>48</b>
<b>TWO-SEATER DRAGSTER RIDE-ALONG PROGRAM .....</b>	<b>49</b>
<b>SPECIALTY VEHICLES .....</b>	<b>50</b>
<b>JCB BACKHOE</b>	<b>50</b>
DRIVER: 10	50
<b>MODERN FUEL ALTERED .....</b>	<b>52</b>
<i>REQUIREMENTS &amp; SPECIFICATIONS</i>	<b>52</b>
ENGINE: 1	52
FRAME: 4	52
BODY: 7	52
<b>LEGEND CARS .....</b>	<b>53</b>
<b>DESIGNATION</b>	<b>53</b>
<i>REQUIREMENTS &amp; SPECIFICATIONS</i>	<b>54</b>
ENGINE: 1	54
DRIVETRAIN: 2	55
BRAKES AND SUSPENSION: 3	55
FRAME: 4	55
TIRES & WHEELS: 5	56
INTERIOR: 6	56
BODY: 7	56
ELECTRICAL: 8	56
SUPPORT GROUP: 9	57
DRIVER: 10	57
NEW JERSEY STATE REQUIREMENTS	58

Exhibition Vehicle Rulebook Supplement

<b>FORD PERFORMANCE SUPER COBRA JET 1800 EXHIBITION VEHICLE SCJ1800.....</b>	<b>58</b>
<b><i>REQUIREMENTS &amp; SPECIFICATIONS</i></b>	<b>58</b>
MOTOR: 1	58
DRIVETRAIN: 2	59
BRAKES & SUSPENSION: 3	59
FRAME: 4	60
TIRES & WHEELS: 5	61
INTERIOR: 6	61
BODY: 7	61
ELECTRICAL: 8	63
SUPPORT GROUP: 9	67
DRIVER: 10	67

# MOUNTAIN MOTOR PRO STOCK



## **DESIGNATION**

MPS, preceded by competition number.

Reserved for 2000 or later model year NHRA accepted 2-door or 4-door coupe or sedan (domestic or foreign) production vehicles. Body, drivetrain, chassis etc. may not be altered, modified, or relocated, except outlined in Requirements & Specifications.

Minimum weight at conclusion of run is 2400 pounds with a Lenco Transmission and 2415 with a Liberty Transmission at conclusion of run.

Once an engine is used in a vehicle at an event, that engine cannot be used in another vehicle for the duration of the event. Engine shall consist short block and heads, and will be serialized or otherwise identified at each event.

## **REQUIREMENTS & SPECIFICATIONS**

### **ENGINE: 1**

#### **CARBURETORS**

Limited to any two 4-bbl. American automotive carburetors available to the general public with any internal modifications. Carburetors may be split.

#### **CYLINDER HEADS**

Cylinder heads must be configured after OEM pattern, contain OEM or aftermarket factory casting number & logo, and must be available to the general public. Heads must be aluminum or cast iron. No billet materials, magnesium or other materials allowed. Maximum 2 valves, and one spark plug per cylinder.

#### **ENGINE**

Internal combustion, reciprocating, naturally aspirated, single camshaft, 90 degree V-8 automotive-type mandatory. Crankshaft centerline must intersect cylinder bore centerlines and be symmetrical. Limited to 833ci hemi and 843 ci on wedge entries, no tolerance. Blocks may be aluminum or cast iron. No magnesium or other materials allowed. One distributor maximum. Maximum 5" bore spacing. Every engine must have an individual Serial No. given by the engine builder. The Serial No. must be located in a clearly visible place on the cylinder heads and block. All moving engine components

## Exhibition Vehicle Rulebook Supplement

must be accepted prior to utilization. Additionally, the use of beryllium, carbon fiber/Kevlar, ceramic, or composites are prohibited from use on these components. The rod and main bearing assemblies must be of conventional sleeve design.

### **ENGINE SETBACK**

Maximum setback is 80.125" as measured from the center of the rear axle to the back of the engine block. Modifications to the block that would permit additional setback are prohibited.

### **EXHAUST SYSTEM**

Open exhaust with headers mandatory. Side exit exhaust systems prohibited. All removable multi-piece exhaust collectors/stacks must be securely fastened with either an NHRA-accepted header tether, a minimum ½" (half-inch) stitch weld located on each primary tube or be permanently attached to the vehicle body or frame with positive fasteners (i.e. exhaust hangers, support brackets, bolts/nuts, etc.) such that they require tools for removal.

### **FUEL INJECTION**

Permitted. EFI controller manufacturer, model, firmware and software must be approved for use by the NHRA Technical Services Department and must be commercially available to all competitors prior to use in competition. Maximum of 16 injectors placed in any location above the cylinder head. EFI controller must operate in an open loop configuration with no connection to oxygen sensor or EGT sensor. EFI controller is stand alone, fuel only with rpm signal provided from crank and or distributor trigger separate from the ignition trigger. EFI controller can have output to data logger only. Oxygen sensors cannot be connected to the EFI controller. EFI controller acceleration, drive shaft, wheel speed, track position, etc. The only sensors to be utilized and or monitored with the EFI controller are coolant temperature, fuel pressure, IAT (Inlet Air Temperature), MAP (Manifold Air Pressure) and TPS (Throttle Position Sensor). Competitors may utilize either 2-4 blade or 4-2 blade throttle bodies. Throttle bodies must be installed with throttle blades in a horizontal location. Forward facing throttle bodies are not permitted. Throttle bodies must be production units commercially available to all competitors prior to use in competition. Intake manifold must be of conventional design with no active components, i.e., runners. Inlet air must be drawn from a single opening, forward facing hood scoop of conventional design. EFI and carburetion cannot be combined on an intake manifold.

### **FUEL**

Propylene oxide and/or nitrous oxide prohibited. See General Regulations 1:6.

### **FUEL SYSTEM**

All fuel cells must be NHRA-accepted (JAZ #220-015, 220-115-01, and 220-315-01): maximum 1 1/2 -gallon fuel cell meeting SFI Spec 28.1 mounted in front of radiator mandatory: must be mounted between frame rails and enclosed in a round tube frame, minimum 1 ¼-inch O.D. x .065 chromoly or Docol R8 tubing. The round tube frame must be attached to a cross member constructed of minimum 1 ¼ O.D. x .065-inch chromoly or Docol R8 tubing. All other designs must be NHRA accepted. Must have pressure cap and be vented, extra tank(s) prohibited. Artificial cooling or heating systems (i.e., cool cans, ice, freon, etc.) prohibited. Circulating systems not part of normal fuel pump system prohibited.

### **OIL-RETENTION DEVICE**

All vehicles must utilize an NHRA-accepted lower engine oil-retention device; may use a belly pan in lieu of device attached to engine. Pan must be constructed of an NHRA-accepted composite material with vertical folded-up walls, at least 4-inches tall. Pan



## Exhibition Vehicle Rulebook Supplement

must run from in front of the front motor plate to in front of the rear motor plate and to just inside or outside of the lower frame rails. Minimum number of slots or holes in the walls to clear frame, steering, or lines permitted. Front and rear walls must be "coved" toward oil pan a minimum of ½-inch to assist oil in staying within the confines of the oil-retention device. Pan must be attached with a minimum of three attachment points per side. A non-flammable, oil-absorbent liner mandatory inside retention device.

### **RADIATOR**

Only one automotive radiator in front location, with only one water pump mandatory in engine compartment. Remote mount permitted. External plumbing from water pump to block and/ or cylinder head(s) permitted. Water pump and fan may be electrically driven.

### **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. See General Regulations 1:12

## **DRIVETRAIN: 2**

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

Flywheel and clutch meeting SFI Spec 1.1, 1.2, 1.3, or 1.4 mandatory. Flywheel shield meeting SFI Spec 6.2 or 6.3 mandatory on any car using SFI Spec 1.3 or 1.4 clutches. Clutch release must be manually operated by driver's foot. Electronics, pneumatics, hydraulics, or any other device may in no way affect the clutch system. Multi-stage, variable release, lockup-type clutch of any description prohibited. Throwout bearing must release all finger, levers, stages, etc. simultaneously.

Flywheel shield cannot be welded into the car and/or frame (used as a crossmember). Frame and/ or body braces cannot be welded to flywheel shield. See General Regulations 2:3, 2:5 ,2:6, 2:9.

### **DRIVELINE**

Driveshaft must meet SFI Spec 43.1. Full 360-degree drive shaft tube required over yoke, extended from transmission tail shaft a minimum length of 12" required from transmission tail shaft. Minimum thickness of tube housing is .050" chromoly, Docol R8, or titanium. Two-piece accepted with minimum 6 3/8" grade 8 bolts. See General Regulations 2:4.

## **BRAKES AND SUSPENSION: 3**

### **BRAKES**

Four-wheel brakes mandatory with dual master cylinder mounted above frame rails on all entries. Steel brake lines mandatory.

### **STEERING**

Stock-type steering in conventional location required. Minimum steering wheel outside diameter is 12". SFI 42.1 disconnect is mandatory.

### **SUSPENSION**

Full automobile production systems required. One hydraulic damper, inerter or damper inerter hybrid required per wheel, for a maximum of four per vehicle. Lightening of stock components prohibited. Rigid mounted suspensions or straight front axles prohibited. Digressive spring devices and digressive springs prohibited.

### **WHEELIE BARS**

## Exhibition Vehicle Rulebook Supplement

Required. Non-metallic wheels required. Maximum length of wheelie bar 80" from center of housing to center of wheelie bar wheel.

### **FRAME: 4**

#### **BALLAST**

250 lbs maximum. Shot bags must be contained in weight box. Ballast attached on or in front of the forward cross member is limited to 40 lbs maximum, including bracket. The bracket may not exceed 12" in length, measured from the cross member, attached with a minimum of (4) 1/2" bolts. The maximum distance from the front of the bracket to the front of the motor plate is 36". Any car found with unsecured or illegal ballast following a run will be disqualified from the event at discretion of the NHRA Technical Services Department.

#### **GROUND CLEARANCE**

Minimum 3" from front of car to 12" behind centerline of front axle, 2" for remainder of car.

#### **PARACHUTE**

Dual parachutes required. Separate shroud-line mounting points with 1/2" sleeved grade 8 bolts required.

#### **ROLL CAGE**

Chassis must meet SFI Spec 25.1. Chassis must be recertified yearly by NHRA and have a serialized sticker affixed to roll cage before participation. See General Regulations 4:4, 4:11, 10:6.

#### **ROLL CAGE PADDING**

Roll-cage padding meeting SFI Spec 45.1 mandatory anywhere 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 [NHRAracer.com](http://NHRAracer.com). See General Regulations 4:11.

#### **WHEELBASE**

Minimum 100, Maximum 105. Maximum variation is 1" side to side.

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

#### **TIRES**

Slicks permitted. Must be automotive type designed for racing. All tires must have manufacturer, model and size information clearly designated if used in competition. Clearance from outside of front tire to inside of fender at widest point not to exceed 4". Rear clearance 3" from outside of tire to inset of fender at widest point. Inner liners accepted. No Radial Tires allowed.

#### **WHEELS**

SFI 15.1 bead-lock rear wheels mandatory. Maximum width 16".

### **INTERIOR: 6**

#### **SEATS/UPHOLSTERY**

Must be in stock location. Driver's seat to be no less than 24" from center of rear axle to seat back (where shoulder harness passes through). Seat frame of chromoly or Docol

## Exhibition Vehicle Rulebook Supplement

R8 tubing must be installed as a permanent part of the chassis. "Wrap around" type seat or fiberglass one-piece bucket accepted. Dashboard exterior appearance must be retained: replicas of original allowed. Head liner optional; area must be painted if headliner is not used. Driver's seat foamed with energy absorbing material, formed for the driver and covered with flame retardant material is required. Lateral helmet support required.

### **WINDOW NET**

SFI 27.1 Required.

## **BODY: 7**

### **BODY**

Must be 2000 or later model year factory produced 2 door coupes and sedans. Sports cars, sedan deliveries and trucks prohibited. Original OEM body shell or NHRA accepted composite replacement required. Chopping, channeling, sectioning, or other alterations to contour, length or width are prohibited. All composite replacement parts must be NHRA accepted and exact duplicates of OEM components and may not be modified. The front end may be lengthened in the cowl area to facilitate body relocation and wheelbase modifications. The maximum front- end overhang on all entries is 45 inches.

### **DOORS**

Must be functional from inside and outside. NHRA duplicates in fiberglass or carbon fiber permitted. All entries must incorporate a metal deflector between the fenders and the leading edge of the doors.

### **FIREWALL**

Moving stock firewall rearward for engine installation permitted. Replacing stock unit with one of .024" steel or .032" aluminum allowed; Magnesium prohibited.

### **FLOOR**

Replacing stock floors with .024" steel or .032" aluminum allowed. Replaced floors must be stock in appearance and location. Driver's side floor pan must be steel and must extend from firewall to rear of driver's seat and must be welded in place. Chassis, frame and drive line must be below floor. Rear floor may not be higher than 8" above door sill. Belly pan mandatory between the center frame rails extending from the rear to the front cross member or to the bell housing. All pans must be designed to facilitate fluid retention. If belly pan is utilized, the drip pan or secondary oil retention blanket is not required.

### **GRILL**

Must be full stock production for body used and visible from front. May have covering over back of grille to prevent air passage. Any factory accessory package must be accepted by NHRA Tech Department, i.e., spoilers, air dams, etc.

### **BUMPERS**

Stock or composite duplicates required front and rear, may be molded into body. Must be NHRA accepted.

### **SPOILERS**

Rear spoilers must measure between 14" to 17", measured from the body line at spoiler transition point to the tip and may have no less than 0 degrees from horizontal. May not be molded into deck lid. All spoilers to be painted to match paint scheme. Rear of chute pack cannot be forward of rear tip of spoiler. Roof-mounted spoilers prohibited. Air foils

## Exhibition Vehicle Rulebook Supplement

prohibited. Any front spoiler used must have been factory available for body used. Spoiler outside of deck lid opening may not exceed 8" wide. Spoiler plates may be no more than 6" high and 26" long. Spoiler plate may not be molded to the quarter panel. A straight edge will be placed on the spoiler, perpendicular to the centerline of the car and level to the ground. Distance between level and lowest part of spoiler can be no more than 2". A wicker bill must be attached across the entire trailing edge of the spoiler. It must be constructed and attached in a way that will prevent air from passing under or through the unit. It must be 90 degrees from top of horizontal plane and a minimum of 1/4" high and a maximum of 1" high.

### **WHEELWELLS**

Rear, must be separate for each tire.

### **WINDSHIELD AND WINDOWS**

Full windows required, .125 polycarbonate materials, such as Lexan MR 4000, allowed. Must match original contour and shape, and mount in stock location. No bubbles in side windows for tire clearance. Windows must be closed, need not be operative. Cutting and/or notching windshield permitted if covered by hood scoop

### **HOOD AND HOOD SCOOP**

One opening only. The highest point of the hood scoop may not exceed 15" in overall height above the original hood surface, measured from the leading edge of the scoop. Must be finished and painted to follow body paint scheme. Hood must be stock size with no bubbles. Cowl section may be molded to hood. A minimum of four fasteners must be used on the leading edge of all lift-off hoods. Sensors, lines, or wires, etc. are prohibited from being in hood scoop.

## **ELECTRICAL: 8**

### **BATTERY**

Maximum two batteries. If mounted inside driver's compartment, battery must be located in a sealed .024-inch steel or titanium, or .032-inch aluminum box See General Regulations 8:1

### **IGNITION**

Aftermarket electronic ignition boxes may not be modified from factory specifications. If digital ignition system has internal programmable retard functions, all of the external wires that have the ability to activate similar functions must be clearly disconnected and removed from the wiring harness. (Ex. MSD 7530, 7530T and 75301 (pink, tan, violet and white wires). MSD 7730 power grid system allowed provided the MSD 7720 (Ignition Module), MSD 7740 (4 connector CAN-Bus Hub) and /or MSD 7751 (Launch Control Module) are the only products used to complete the ignition system. The 5 individual step retard wires (pink, violet, tan, light green and green) must be clearly disconnected. Any electronic traction control device prohibited.

### **MASTER CUTOFF**

Mandatory. See General Regulations 8:4

## **SUPPORT GROUP: 9**

### **FIRE EXTINGUISHER SYSTEM**

SFI 17.1 system required. System must contain a minimum of 5 lbs of fluid or gas fire suppression agent. One nozzle required inside driver's compartment must be directed

## Exhibition Vehicle Rulebook Supplement

at driver's feet. Two or more nozzles must be directed at front of engine and fuel cell.

### **COMPUTER/DATA RECORDERS**

Data recorders permitted. Must be standalone, NHRA-accepted, and used for information gathering only. See NHRARacer.com: NHRA Accepted Products, Data Recorders.

### **SHUTOFF DEVICE**

Properly functioning Electrimotion Pro Stock shutoff device (part numbers SB001 and RF001) required. The Electrimotion Shutoff Controller kit must be properly installed per the manufacturer's instructions. Modification or tampering with the Electrimotion Pro Stock Shutoff Controller Kit Prohibited.

### **TOW VEHICLES**

Golf cart or three- or four-wheeled, Quadrunner/ATV-type tow vehicle permitted. Full-size tow vehicle prohibited. See General Regulations 9:12.

### **WARM-UPS**

See General Regulations of the NHRA Rulebook 9:5, 9:14.

## **DRIVER: 10**

### **CREDENTIALS**

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

### **DRIVER RESTRAINT SYSTEM**

Driver restraint system meeting SFI Spec 16.1 or 16.5 mandatory. See General Regulations 10:8.

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

System meeting SFI Spec 38.1 mandatory.

### **HELMET**

Full-face helmet meeting Snell: M2015, M2020, SA2015, SA2020, FIA: 8860-2010, 8860-2015 or 8860-2018 mandatory; Shield mandatory (goggles Prohibited). Eject Helmet removal system (part number SDR 890-01-30) mandatory and must be installed per manufacturer's instructions. A Stand 21 Lid lifter head sock meeting SFI Spec 3.3 may be used in lieu of the Eject helmet removal System. See General Regulations 10:7.

### **PROTECTIVE CLOTHING**

Jacket and pants or suit meeting SFI Spec 3.2A/15, gloves meeting SFI Spec 3.3/5 and Shoes meeting SFI Spec 3.3/5 mandatory. An SFI 3.3 head sock or SFI 3.3 skirted helmet is required on all cars, where a neck collar is not used. See General Regulations 10:10.

## **DIESEL TRUCK**

### **DESIGNATION**

This category is reserved for 18-wheeler, over-the-road-type trucks only. Pickups, passenger cars, El Camino-style, vans, etc. are prohibited.

Diesel Trucks are considered Exhibition vehicles only. Diesel Trucks may run against other Diesel Trucks only. Competition against other types of vehicles is prohibited.

Diesel Truck is restricted in that no vehicle shall run quicker than 11.99 (7.49 eighth-mile) or faster than 115 mph.

## Exhibition Vehicle Rulebook Supplement

Refer to the current NHRA Rulebook or rule amendments for further vehicle/driver requirements, specifications, and general regulations.

Two classes of competition:

**Stock Truck:** maximum weight 16,000 pounds

**Hot Truck:** maximum weight 8,000 pounds

## REQUIREMENTS & SPECIFICATIONS

### ENGINE: 1

#### ENGINE

Must be of a type/style commercially produced for tractor-trailer-type trucks. Any internal modifications permitted.

#### FUEL

Diesel or propane permitted. All other types of fuel prohibited. Nitrous oxide permitted.

#### SUPERCHARGER, TURBOCHARGER

Permitted. Restricted to standard Roots-type supercharger. Rotor helix not to exceed standard 71 series GM-type rotor.

### DRIVETRAIN: 2

#### DRIVELINE

Driveshaft loop required on all trucks running slicks and/or quicker than 14.00 (8.60) seconds.

### BRAKES & SUSPENSION: 3

#### BRAKES

Four-wheel hydraulic or air brakes mandatory. Air brake systems must have sufficient air-tank capacity to maintain minimum 65 psi of pressure at all times.

#### SUSPENSION

Stock-type suspension required. Must be beam-type axle with leaf springs.

### FRAME: 4

#### ROLL CAGE

Mandatory on any truck running 13.99 (8.59) seconds or quicker. Roll cage configuration must follow Full Bodied configuration found in the NHRA Rulebook. Any truck running 13.99 (8.59) seconds and quicker must be inspected by NHRA and have a valid NHRA Sportsman Chassis Certification sticker affixed to the roll cage prior to participation, on a two-year interval. Tubing size: Hot Truck: 1 3/4-inch x .095-inch chromoly only Stock Truck: 1 5/8-inch x .083-inch chromoly or Docol R8; or 1 5/8-inch x .118-inch mild steel.

### TIRES & WHEELS: 5

#### TIRES

Minimum front, 10.00 x 20-inch or tubeless equivalent. Slicks permitted in Hot Truck class only.

#### WHEELS

Must be OEM for use on 18-wheeler-type truck.

## **BODY: 7**

### **BODY**

Must be an original or replica of a commercial truck to qualify for this program.

### **WINDSHIELD, WINDOWS**

OEM safety glass mandatory in Stock Truck. Lexan or Plexiglas replacement permitted in Hot Truck. Tinting prohibited in both categories.

## **ELECTRICAL: 8**

### **BATTERY**

Batteries must be securely mounted; may not be located in driver's compartment.

### **TAILLIGHTS**

Must have one functional taillight for night operation.

## **SUPPORT GROUP: 9**

### **TOW VEHICLES**

Permitted.

## **DRIVER: 10**

### **DRIVER RESTRAINT SYSTEM**

Driver restraint system meeting SFI Spec 16.1 or 16.5, including crotch strap, mandatory in any truck running quicker than 14.00 (8.60) and in all Hot Trucks. Seat belts mandatory in all other trucks.

### **HELMET**

Helmet meeting SFI: M2015, M2020, SA2015, SA2020, SFI: 31.1/2015, 31.1/2020, 41.1/2015, 41.1/2020, FIA: 8860-2010, 8860-2015 or 8860-2018 Specs mandatory in all trucks running 13.99 (8.59) seconds or quicker.

### **PROTECTIVE CLOTHING**

Drivers in trucks running 13.99 (8.59) seconds or quicker must wear a jacket meeting SFI Spec 3.2A/1.

## **TOP FUEL MOTORCYCLE**



### **DESIGNATION**

TFM, followed by motorcycle number.

Reserved for super charged nitro burning motorcycles with a minimum dry weight of 825 pounds. Built specifically for all out drag racing.

## **REQUIREMENTS AND SPECIFICATIONS**

### **ENGINE: 1**

#### **ENGINE**

Supercharged engines only. Maximum displacement for push-rod combination 180 cubic inches. Maximum displacement for inline combination 1800 cc. Pushrod aftermarket heads are permitted (including 4 valve). Crankcase and all tanks containing fluids must have vent tubes routed to catch can or have a non-spill breather system on motorcycle. Superchargers must have rubber manifold connections or some form of blowoff valve or burst panel required. January 2025, supercharger blankets are mandatory. Must have "Bellypan" scatter shield under engine. SFI Specification 46.1 approved engine restraint systems are required on all pushrod engines. A non-flammable, oil absorbent liner mandatory inside of retention device. These restraints must be replaced or recertified by the manufacturer every two (2) years.

#### **FUEL**

Fuel to be minimum of 60% nitromethane. No propylene oxide or nitrous permitted. Refer to General Regulations Section 1:6 of the current NHRA Rulebook for nitromethane regulations.

### **DRIVETRAIN: 2**

#### **CHAIN GUARD**

Mandatory on all motorcycles. Chain guard must be .060-inch steel or 1/8-inch aluminum and must be securely mounted in three places. Chain guard must cover the width and at least the top run of the chain, from centerline to centerline of sprockets.

#### **CLUTCH**

Any type dry friction clutch, including multi-stage setup, permitted. Clutch engagement must be by centrifugal force only and must exhibit reliable disengagement at idle speed. Clutch must have a protective guard made of .060-inch steel or 1/8-inch aluminum that covers the unit 360 degrees. Torque converters are permitted when used in lieu of a clutch.

#### **TRANSMISSION**

Any transmission or high-gear-only system may be used.

### **BRAKES AND SUSPENSION: 3**

#### **BRAKES**

Hydraulic type, front and rear, minimum 11 inch diameter and 1/8-inch thickness for all rotors. Minimum dual 4 piston calipers in the front. Minimum single four piston caliper for rear. If using automotive type Carbon-Carbon rear brakes 4 piston caliper is permitted

#### **CONTROLS**

Handlebar controls must be located in a safe, workable position. Foot pegs and foot controls must be located in a safe, workable position and must be mounted in a safe, craftsman-like manner. Rider must be able to shut off fuel without removing hands from handlebars. A secondary shut-off device attached to rider must mechanically control the



## Exhibition Vehicle Rulebook Supplement

fuel shut-off valve (in the event of premature exit from motorcycle). Lanyard for shut-off must be run through an eyelet or guide, allowing the lanyard to be pulled in any direction and closing shut-off. Lanyard must be made of nylon or steel braided. Dual cable push-pull throttle assembly is mandatory.

### **SUSPENSION**

Front suspension minimum size 38 mm and minimum travel of 2 inches. Front fork suspension outer tubes must be a one-piece design. A steering dampener is mandatory. Rear suspension not permitted. Fork stops required; must limit the turning arc to 28 degrees.

## **FRAME: 4**

### **FRAME**

Any type permitted. All frames should be heliarc welded and main rails must be chromoly or Docol R8 and have a minimum diameter of 1-1/8 inch. All major frame tubing must have at least .065-inch wall thickness. Rake angle must be at least 36 degrees. Alternative frame materials must be submitted to NHRA for approval. Handlebars must be 7/8 inch minimum OD, composed of Steel or Stainless Steel (.058 minimum thickness). Copper, titanium, or any other material prohibited. All bikes must have front fork tube braces, triple trees may be used in place of braces.

### **GROUND CLEARANCE**

Minimum of 2 inches with rider on motorcycle and 10 psi in rear tire (includes exhaust).

### **PARACHUTE**

Mandatory. See General Regulations 4:8

### **WHEELBASE**

Minimum of 95 inches.

### **WHEELIE BARS**

Wheelie bars are required. Minimum length from center of rear axle to center of wheelie bar axle must be at least 84 inches but not exceed 120 inches. Must be securely cross-braced.

## **TIRES AND WHEELS: 5**

### **TIRES**

Front tire must be rated Z or ZR or rated for 200 mph with a minimum width of 3.5 inches. Rear tire must be specified for racing use by manufacturer and a minimum of 13.0 inches wide.

### **WHEELS**

Rear wheel diameter minimum 15 inch, maximum 18 inch. Front wheel diameter minimum 17 inch, maximum 19 inch. Carbon fiber rear wheels prohibited.

## **SEAT: 6**

### **SEAT**

Seat, tail section and rear fender may be incorporated into one unit and must include a step to prevent rider sliding backward.

## **BODY: 7**

### **BODY**

No body parts are required, except rear fender that must cover width of tire and extend past the rear axle.

### **FAIRING**

Permitted. Must be mounted solidly to frame tubes.

## **ELECTRICAL: 8**

### **IGNITION**

Any ignition system is permitted.

### **CHARGING SYSTEM**

Not required.

### **STARTING SYSTEM**

Must be electric external starter. Battery top covers are required. No rollers. No push starts. No dry hops in pits.

### **CONTROL SWITCHES**

Must be mounted and constructed in an accepted manner. Must have an emergency fuel shut off.

### **LIGHTS**

Not required.

### **SAFETY SYSTEM AIR PRESSURE SHUTOFF SWITCH**

A 120psi air switch must be installed to enable the fuel cutoff if the safety air system pressure falls below 120psi. In the event the motorcycle is losing air pressure during a run, the switch must open when system air pressure goes below 120psi. The switch must run in series with the fuel shutoff signal. The switch must be wired to not remove power from the Electrimotion Safety Device at any time.

## **SUPPORT GROUP: 9**

### **COMPUTER/DATA RECORDERS**

Must be a NHRA accepted product.

### **SAFETY SYSTEM AIR SUPPLY**

A stand-alone air system bottle must be used to supply air to all safety systems. The frame and/or handlebars cannot be used for this purpose.

### **SHUTOFF DEVICE**

Electrimotion Pro Stock Shutoff Controller Kit (RF001PS) mandatory. The Electrimotion Pro Stock Shutoff Controller Kit must be properly installed per the manufacturer's instructions. Modification or tampering with the Electrimotion Pro Stock Shutoff Controller Kit prohibited.

## **RIDER: 10**

### **CREDENTIALS**

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

### **FRESH AIR SYSTEM**

Fresh-air breathing system permitted. System must be manufactured and installed by the original helmet manufacturer or with written authorization of the original helmet

## Exhibition Vehicle Rulebook Supplement

manufacturer. Helmet must meet applicable SFI and/or Snell Specs with fresh air system installed. Compressed air only. Air must be supplied by constant pressure (see General Regulations 9:8).

### **HELMET**

Full-face Snell: M2015, M2020, SA2015, SA2020, FIA: 8860-2010, 8860-2015 or 8860-2018 helmet mandatory; shield mandatory (goggles prohibited). Eject Helmet Removal System (part number SDR 890-01-30) mandatory and must be installed per manufacturer instructions. A Stand 21 Lid Lifter head sock meeting SFI 3.3 may be used in lieu of the Eject Helmet Removal System. A head sock or skirted helmet mandatory. General Regulations 10:7.

### **PROTECTIVE EQUIPMENT**

January 2025, all-leathers or non-leather suits meeting SFI Spec 40.1/2 mandatory. Minimum leather suit thickness: 3oz. An additional layer of protection, consisting of a second layer of leather, separated by a layer of Kevlar (totaling 2 layers of leather and 1 layer of Kevlar) is mandatory in the following areas: Shoulders, Elbows, Forearms, Hips, Butt, and Knees. CE Level 2-certified back protector mandatory. Leather riding boots mandatory. Boots must be a minimum of 7in tall, measured at the heel from the ground. Boots must have additional protection made of hard composite, plastic, or steel in the following areas: Toe Box, Forefoot area, and Ankle area. Sole of boots must be sewn on. Leather gloves are mandatory and must be Kevlar-lined or equipped with slide buttons. Suits may be one-piece design or joined with a metal 360-degree zipper at the waist. Ballistic chest protector mandatory on all push rod engine bikes.

### **RACE TEAM CLOTHING**

All team crewman that assist in starting, burnout, or stage motorcycle must wear a uniform shirt that relates to their specific team.

# **EXHIBITION FUEL MOTORCYCLE**

## **REQUIREMENTS & SPECIFICATIONS**

### **ENGINE: 1**

#### **ENGINE**

Must be of a type specifically designed and manufactured for motorcycle use. Maximum two engines, size unlimited, with any internal modifications permitted. Engines must be self-starting. Push, tow, or roller starts prohibited. An SFI Spec 46.1 engine restraint system mandatory.

#### **FUEL**

Nitromethane, alcohol, racing gasoline, gasohol, diesel, natural gas, or propane permitted. Nitrous oxide permitted on naturally aspirated alcohol or gasoline-burning engines only.

#### **FUEL SYSTEM**

Steel-braided fuel lines mandatory. Dual cable positive-return throttle mandatory. All motorcycles must be equipped with a preloaded fuel shutoff connected by a lanyard

## Exhibition Vehicle Rulebook Supplement

between the rider and the trigger.

### **NITROUS OXIDE**

Commercially available nitrous oxide permitted. Bottle(s) must be stamped with a DOT-1800 pound rating and permanently mounted (hose clamps or tie wraps prohibited). Hoses from bottle(s) to solenoid must be high-pressure steel braided or NHRA-accepted hoses. Commercially available, thermostatically controlled, blanket-type warmer accepted. Any other external heating of bottle(s) prohibited.

### **SUPERCHARGER**

Supercharger must be equipped with a supercharger restraint system. Manifold burst panel or rubber manifold connection mandatory on all supercharger installations. Nitrous oxide prohibited with any supercharger.

### **TURBOCHARGER**

Permitted. Nitrous oxide permitted with turbocharger only when gasoline is used as a fuel.

## **DRIVETRAIN: 2**

### **CHAIN GUARDS**

Mandatory on all motorcycles. Chain guard must be .060-inch steel or 1/8-inch aluminum and must be securely mounted in three places. Chain guard must cover the width and at least the top run of chain/belt, from centerline to centerline of the sprockets.

### **CLUTCH**

Any type clutch permitted. Cast material prohibited in stress bearing areas. Clutch must have a protective guard made of .060-inch steel or 1/8-inch aluminum that covers the unit 360 degrees.

## **BRAKES & SUSPENSION: 3**

### **BRAKES**

Hydraulic type, front and rear, mandatory. Steel-braided brake lines mandatory. Brake lines must be routed and mounted to ensure no contact with moving parts. Minimum size: front, dual discs, 9-inch diameter by 1/8-inch thickness (single caliper permitted if 11-inch diameter by 1/4-inch thickness; rear, 9-inch diameter by 1/4-inch thickness). Piston diameter must meet OEM minimums for brand of bike. Drilled disc brakes may be used if commercially manufactured or they meet the following requirements: Holes in rotors, (if used), cannot exceed 1/2-inch maximum. All holes must be countersunk. No two holes closer than 1.25-inch center to center.

### **CONTROLS**

Handlebar controls must be located in safe, workable position. Foot pegs and foot controls must be located in safe, workable position and must be mounted in an accepted manner. Rider must be able to shut off fuel without removing hands from handlebars. A secondary shut off device must be attached to rider in the event of a premature exit from motorcycle. This device must control the fuel valve. Dual cable push-pull throttle assembly is mandatory. Lanyard for secondary shut off must be run through eyelet, allowing the lanyard to be pulled in any direction to force shut off.

### **FRONT SUSPENSION**

Hydraulic-tube-type only; minimum tube diameter is 32mm. Front fork suspension outer tubes must be a one-piece design. Minimum travel: 2 inches. Positive fork stops with a maximum turning arc of 12 degrees in either direction mandatory. Steering dampener mandatory.

## Exhibition Vehicle Rulebook Supplement

### **WHEELIE BARS**

Wheelie bars mandatory. Length may not exceed 120". Wheels must be nonmetallic.

### **FRAME: 4**

#### **FRAME**

Minimum tubing dimension: 1 inch by .058-inch; 4130 chromoly or Docol R8 mandatory. All butt welds must have visible reinforcement. All welding on chromoly must be by approved heliarc (TIG) process.

#### **GROUND CLEARANCE**

Minimum of 2 inches with rider on bike.

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

#### **TIRES**

Must be specified for racing use by manufacturer. Any rear tire size permitted, as long as does not exceed rim width by more than two inches. Minimum front tire width: 3 inches.

#### **WHEELS**

Bead-lock rear wheel mandatory. Rear-wheel minimum: 15-inch minimum diameter; maximum: 18-inch diameter. Front-wheel minimum: 16-inch diameter; maximum: 19-inch diameter.

### **BODY: 7**

#### **FAIRINGS/FENDERS**

Front fairings must be solidly mounted to frame tubes. Rear fenders must cover width of tire extended past rear axle.

#### **SEAT**

Seat, tail section, and rear fender may be incorporated as one unit and must include a step to prevent rider sliding backward.

### **RIDER: 10**

#### **CREDENTIALS**

Valid NHRA Exhibition Fuel Motorcycle license mandatory. License applications will only be accepted from legitimate Fuel-type or Funny Bike-type vehicles, not street-type bikes. Prior to receiving an NHRA license, the following conditions must be met: Motorcycle must meet all established minimum requirements as outlined in this Exhibition Fuel Motorcycle section and current NHRA Rulebook.

#### **HELMET**

Full-face helmet and shield (goggles prohibited) meeting Snell: M2015, M2020, SA2015, SA2020, FIA: 8860-2010, 8860-2015 or 8860-2018 Specs mandatory.

#### **PROTECTIVE CLOTHING**

Full all-leathers or SFI Spec 40.1/2 suit, leather boots that completely cover the ankle with toe-area reinforcement, and full-finger leather gloves mandatory. Gloves must be Kevlar-lined or equipped with slide buttons. Suits may be one-piece design or joined with a zipper at the waist. Reinforcement and/or armor in the knee, elbow, shoulder, and knuckle areas required. Spine/back protector and ballistic chest protector mandatory on supercharged, nitromethane burning, or nitrous motorcycles.

#### **LICENSING PROCEDURE**

New riders must notify NHRA of intention to obtain a license and all required forms and rules for the category. All new drivers will pay a license application fee with the submission of verification of physical examination. Rider must successfully complete an

## Exhibition Vehicle Rulebook Supplement

NHRA physical and have a completed NHRA physical form signed by a licensed physician in hand before any test runs are made. Physicals are required every two years.

A minimum of six runs must be made, witnessed, and documented by a minimum of two currently licensed NHRA Exhibition Fuel Motorcycle riders. Any currently licensed NHRA Pro Stock Motorcycle license holder may cross-grade to an Exhibition Top Fuel license upon application to NHRA and completion of a checkout pass of a minimum of 7.50 seconds (quarter-mile) and payment of the appropriate fees. The final runs must be quicker than 7.50 seconds or representative of the performance of the motorcycle. After completion of the test/license runs, applicant must complete license application form in full and have it signed by the track manager or other authorized person. Applicant is responsible for sending the test form, medical (physical) form, time slips for all test runs documented on the application form, and the appropriate fees to: NHRA Technical Services Department, 140 Via Verde, Ste 100, San Dimas, CA 91773

### **LICENSE RENEWALS**

Rider must submit a completed physical form, signed by a licensed physician, and an NHRA Exhibition License application form along with appropriate fees. If license is expired more than six months, rider must make three test runs, witnessed and documented on application form. A minimum of one run must be 7.50 seconds or quicker. If license is expired more than one year, the complete application and testing process must be repeated (as if new rider). All Exhibition licenses are valid for two years from date of physical.

# **EXHIBITION V-8 MOTORCYCLE**

## **REQUIREMENTS & SPECIFICATIONS**

### **ENGINE: 1**

#### **ENGINE**

Must be single, internal combustion, automobile-type engine with a maximum original displacement of 400 cubic inches. Small-block engine only. Push, tow, or roller starts prohibited.

#### **EXHAUST**

Exhaust must be directed away from rider when in riding position.

#### **FUEL**

Gasoline, racing gasoline, gasohol, propane, natural gas, and ethanol permitted. Nitromethane prohibited.

#### **FUEL SYSTEM**

Fuel-shutoff valve mandatory. Steel-braided line mandatory. All fuel tanks must be securely mounted.

#### **NITROUS OXIDE**

Commercially available nitrous oxide permitted. Bottle(s) must be stamped with a DOT-1800 pound rating and permanently mounted (hose clamps or tie wraps prohibited). Hoses from bottle(s) to solenoid must be high-pressure steel braided or NHRA-accepted hoses. Commercially available, thermostatically controlled, blanket-type warmer accepted. Any other external heating of bottle(s) prohibited.

## **SUPERCHARGER/TURBOCHARGER**

Prohibited.

## **DRIVETRAIN: 2**

### **CHAIN/DRIVE BELT**

Primary chain or belt guards mandatory. Must be 1/8-inch steel or 1/4-inch aluminum, fully enclosed. Shaft drive must have protection for rider's legs and body. Chain guard required. Must cover the width and at least the top run of chain or belt to centerline of sprocket.

### **CLUTCH/FLYWHEEL**

Clutch and flywheel meeting SFI Spec 1.1, 1.2, or 1.3 required.

### **FLYWHEEL SHIELD**

Flywheel shield meeting SFI Spec 6.1, 6.2, 6.3 or shield made of 1/4-inch steel with 360-degree coverage required.

## **BRAKES & SUSPENSION: 3**

### **BRAKES**

Operational hydraulic or mechanical disc brakes front and rear mandatory. Disc brakes on front must be minimum: Dual rotors, 9-inch diameter by 1/8-inch thickness; single rotor, 11-inch diameter x 3/16-inch thickness. Rear brakes must be a minimum of 10-inch diameter x 3/16-inch thickness or NHRA-accepted system. Steel-braided lines required.

### **CONTROLS**

Handlebar controls must be located in safe, workable position. Foot pegs and foot controls must be located in safe, workable position and must be mounted in an accepted manner. Rider must be able to shut off fuel without removing hands from handlebars. A secondary shut off device must be attached to rider in the event of a premature exit from motorcycle. This device must control the fuel valve. Dual cable push-pull throttle assembly is mandatory. Lanyard for secondary shut off must be run through eyelet, allowing the lanyard to be pulled in any direction to force shut off. A positive-return throttle required. Must be snap-back type, with minimum two throttle-return springs mandatory.

### **FRONT SUSPENSION**

Hydraulic-tube type only. Front fork suspension outer tubes must be a one-piece design. Minimum tube diameter is 36mm, with a minimum of two inches of travel.

### **WHEELIE BARS**

Maximum length may be equal to, but may not exceed, the wheelbase. Wheels must be nonmetallic.

## **FRAME: 4**

### **FRAME**

Must be reinforced to accept weight and torque of an automotive-type engine. Lower frame rail must be minimum 1 1/2-inch x .058-inch 4130 chromoly or Docol R8 tubing. A dated NHRA Exhibition Chassis Certification sticker will be placed on all accepted vehicles in this program; and chassis must be inspected every two years by NHRA.

## **TIRES & WHEELS: 5**

### **TIRES**

Automotive tires permitted. Must be specified for racing use by manufacturer.

### **WHEELS**

Automotive wheels permitted. Dual bead-lock design on rear wheel mandatory.

## **ELECTRICAL: 8**

### **IGNITION SHUTOFF**

A positive ignition cutoff switch on the handlebar attached to rider's wrist by a lanyard is mandatory. A master electrical cutoff switch is required to cut off all electrical functions.

## **RIDER: 10**

### **CREDENTIALS**

A valid NHRA Exhibition V-8 Motorcycle rider license is required.

### **HELMET**

Full-face helmet and shield (goggles prohibited) meeting Snell: M2015, M2020, SA2015, SA2020, FIA: 8860-2010, 8860-2015 or 8860-2018 Specs mandatory.

### **PROTECTIVE CLOTHING**

Full all-leathers or SFI Spec. 40.1/2 suit is mandatory. Suits must be one-piece design or joined at the waist with a zipper. Leather boots/shoes above the ankle and leather gloves must be Kevlar-lined or equipped with slide buttons.

### **LICENSING PROCEDURE**

New riders must notify NHRA of intention to obtain a license and all required forms and rules for the category. All new drivers will pay a license application fee with the submission of verification of physical examination. Motorcycle must meet all established requirements as outlined in the NHRA Exhibition V-8 Motorcycle Program and the current NHRA Rulebook. Rider must successfully complete an NHRA physical and have a completed NHRA physical form signed by a licensed physician in hand before any test runs may be made. New physical required every two years. A minimum of six runs must be completed, witnessed, and documented by a license committee accepted by NHRA. All runs must be made at NHRA member tracks. Final runs must be quicker than 9.99 seconds (quarter-mile) or representative of the performance of the bike. Upon completion of test runs, applicant must forward the completed license forms with all applicable signatures, original physical form, and time slips along with full fees to: NHRA Technical Services Department, 140 Via Verde, Ste 100, San Dimas, CA 91773. Riders licensed under this program are restricted to single runs only. Match races or side-by-side competition with any other vehicle is prohibited.

### **INITIAL INSPECTION**

Contact NHRA Tech Department for initial inspection procedures.

### **LICENSE SUSPENSION**

Any rider found in violation of NHRA rules and/or regulations may be subject to penalties as determined appropriate in the sole and absolute discretion of the NHRA.

### **PERFORMANCE LIMITS**

V-8 motorcycles with engine mounted in a longitudinal method (crankshaft at right angles to rear wheel) may utilize a limit of 205.99 mph in the quarter-mile. V-8 motorcycles with the engine mounted with the crankshaft parallel to the wheelbase of the motorcycle are restricted to 150.99 mph in the quarter-mile. All accidents, incidents, problems, or failures (Whether they occur at NHRA member tracks or facilities or not.) *MUST BE REPORTED TO THE NHRA TECHNICAL SERVICES DEPARTMENT IMMEDIATELY* (within 48 hours). Failure to report such events or careless operation of any motorcycle in this program may cause suspension of license or fines. Any procedure, requirement, or specification described herein may be amended by the NHRA at any time.



# **JET-POWERED DRAGSTER & FUNNY CAR**

## **COMPETITION**

Although an all-out competitive category does not exist for jet-powered thrust vehicles, such vehicles are a popular feature at many NHRA member tracks. Strictly enforced performance limits are in effect. See PERFORMANCE LIMITS.

## **REQUIREMENTS & SPECIFICATIONS**

### **ENGINE: 1**

#### **AFTERBURNER-TAILPIPE**

For butts, seams must be on bottom; overlap seam placement will be at the discretion of the technical inspector. Dump valve on afterburner manifold mandatory; valve to be actuated with primary chute lever (to prevent shutoff smoke).

#### **AIR INTAKE**

All air intakes must be totally and securely screened (1/8-inch minimum, 3/8-inch maximum or equivalent). Such screening must be securely attached to the engine.

#### **CATCH CAN**

Fuel overflow catch tanks of sufficient capacity to accommodate excess fuel on shutdown and adequate tank venting (minimum 1 quart) required on all vehicles. Use of hose clamps or tie wraps prohibited.

#### **CONTROL CABLES**

Manual afterburner control valve cable, minimum 3/16-inch. Electronic control accepted. Fuel control cable must be minimum 3/16-inch. Must have secondary shutoff on main fuel line. Emergency shutoff on burner shutoff line mandatory. Emergency shutoff on manually controlled afterburner system mandatory.

#### **ENGINE**

Maximum of one thrust-driven engine permitted. Engine attitude must have down thrust; minimum negative 1-degree angle. No internal modifications permitted. All engines must be run within manufacturer's maximum limits. Engine make, type, and model must be NHRA-accepted. Current engines are J-33, J-34, J-60 (JT-12), J85-5 (CJ-610), and Rolls Royce Viper 522 & 622. Any other engines must be accepted prior to running.

#### **FILTER**

Filter on hot streak inlet mandatory.

#### **FUEL**

Approved jet-type fuel only (Jet A, Jet A-1, kerosene, diesel). Only diesel fuel additives permitted. Separate water and methanol injection systems permitted. Racing gasoline permitted for starting purposes only.

#### **FUEL TANK**

Maximum 30 gallons. Must be securely mounted to frame, with appropriate baffling (welded or equivalent). If pressurized, tank must be round. Mechanism to release fuel tank pressure mandatory. If electrical device, switch must be "normally open" type. Fuel line(s) may not be routed inside framerail.

#### **INSTRUMENTS**

## Exhibition Vehicle Rulebook Supplement

All instruments, gauges, and metering devices must be fully functional. The following instruments must be visible from the cockpit of each vehicle: tachometer (percent of rpm); exhaust gas temperature gauge (EGT); oil pressure gauge/light (taken off pump outlet housing).

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

#### **BRAKES**

Caliper-type disc brakes required on all four wheels. Two separate hydraulic systems required; maybe front/rear or double system.

#### **SUSPENSION**

Functional front and rear suspension optional. Rear shocks, if used, must be installed in such a manner as to retain integrity of suspension in case of failure.

### **FRAME: 4**

#### **GROUND CLEARANCE**

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

#### **PARACHUTES**

Dual parachutes mandatory. Separate shroud-line mounting points required with ½-inch sleeved grade 8 bolts. Primary parachute must be on a control system that will shut off engine when parachute is released. Secondary parachute must be used as an independent backup system with engine shutdown capabilities (secondary fuel shutoff bypass valve on main fuel line to work with secondary parachute). Must have at least two ways to positively shut off jet engine. Parachute mount must be substantially bolted and/or welded in place. Minimum parachute connection spool diameter: 1 inch. Funny Cars required to have a minimum 10-foot bridle cord to attach pilot parachute. Chutes and shroud lines must be mounted in such a position as to be protected from tailpipe heat. All unpacked shroud lines must be covered with 1/16-inch leather or NHRA-accepted material (silver tape prohibited). Steel, aluminum, or carbon-fiber parachute tubes only. Parachute packs prohibited.

#### **ROLL CAGE**

Dragster chassis must meet SFI Spec 2.1; Funny Car chassis must meet SFI Spec 2.2B, 2.1, or 10.1E. Plating of chassis prohibited; painting permitted. Chassis must be recertified every two years by NHRA and have serialized sticker affixed to frame before participation. Absolutely no motorcycles or three-wheeled vehicles will be considered for this program. Roll-cage padding meeting SFI Spec 45.1 mandatory anywhere driver's helmet may come in contact with roll-cage components.

#### **WEIGHT**

Minimum 1,250 pounds; maximum 3,200 pounds. All weights include driver and residual fuel at completion of run.

#### **WHEELBASE, DRAGSTER**

Minimum 180 inches; maximum 300 inches.

#### **WHEELBASE, FUNNY CAR**

Minimum 125 inches; maximum 135 inches.

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

#### **TIRES**

Rear tires restricted to Goodyear NASCAR Radials D4006 and D4224 or Goodyear Bias Ply D2934, 2270, D2932, D4600, D2291 and D2279. Tires are to meet size

## Exhibition Vehicle Rulebook Supplement

requirements when installed and ready to run at manufacturer's recommended operating pressures. Minimum front-wheel diameter on jet Funny Cars, 14 inches.

### **INTERIOR: 6**

#### **SEAT**

Seats must be foamed and formed with energy-absorbing material to the driver's body. Minimum one-layer, flame-retardant-material type mandatory as seat upholstery. No magnesium permitted.

#### **SHEET METAL**

All sheet metal within driver compartment must be aluminum or steel; magnesium prohibited.

### **BODY: 7**

#### **BODY, Funny Car**

Driver must be isolated from engine compartment and fuel system with minimum 3/16-inch Lexan. Firewall must provide a bulkhead between the engine or fuel tank and driver compartment. All openings must be sealed with metal. Minimum .032-inch 6061 T6 aluminum or .024-inch steel; use of magnesium prohibited. Must have at least one way to easily and quickly exit the car with the body down (roof hatch or removable windshield), with release operable from inside and outside of vehicle. Exit from car with body down must be demonstrated during the inspection process. Rear spoiler recommended for vehicle stability.

### **SUPPORT GROUP: 9**

#### **FIRE EXTINGUISHER SYSTEM**

Funny Cars: minimum 10-pound, NHRA-accepted fire extinguisher system. Enclosed-cockpit dragsters: Minimum 5-pound, NHRA-accepted fire extinguisher system. See General Regulations 9:3 for NHRA-accepted fire extinguishing agents. The release of onboard fireworks is prohibited.

#### **SHUT OFF DEVICES**

Moving of the throttle to the maximum position arms an automatic shutoff device installed such that release of a driver actuated momentary switch will shut off all fuel to the engine (including the afterburner), and deploy either the primary chute or the emergency chute. The system may be electrically and/or pneumatically operated. In the absence of either electrical power or pneumatic pressure to the system, the system will prevent the engine from running, and loss of either electric power or pneumatic pressure to the system during the run will also shut off all fuel to the engine (including the afterburner).

Additionally, a timer, set at 0.2 seconds above the normal or expected elapsed time of the participating car, and armed by going to maximum throttle, shall be triggered either by the activation of the hot streak, and/or release of brake pedal/handle. Once activated, and timed out, the system shall shut off all fuel to the engine (including the afterburner), and deploy either the primary chute or the emergency chute.

## Exhibition Vehicle Rulebook Supplement

Absolutely no delays, overrides, or bypasses of any description are permitted in any of the shutdown devices/systems.

# DRIVER: 10

## ARM RESTRAINTS

Mandatory.

## CREDENTIALS

Valid NHRA jet license mandatory. Applicant must be minimum 18 years of age. Licensing is on an individual basis through the NHRA Technical Services Department. Contact NHRA Technical Services Department for more information.

## DRIVER LOCATION

Driver must be sealed off from intake by firewall of at least shoulder height. If located next to compressor section, driver must be totally isolated from compressor by 3/8-inch 7075-T6 aluminum shield. J-85 Funny Cars must be additionally equipped with a minimum 360-degree .050-inch stainless steel shield encompassing combustion and combustion can. If driver is located near hot section, insulation must be used to protect driver from engine heat.

## DRIVER RESTRAINT SYSTEM

A quick-release driver restraint system, with a 2-inch crotch strap, meeting SFI Spec 16.1 or 16.5 is mandatory in all cars. Driver restraint system must be clearly labeled as meeting SFI Spec 16.1 or SFI Spec 16.5 and be dated by manufacturer. SFI 16.1 or 16.5 3-inch wide shoulder harness straps folded over and sewn to be 2-inches wide by the original manufacturer in order to fit into head and neck restraint lips/channels are acceptable. Restraint system must be updated at two-year intervals from date of manufacture.

**Effective 1/1/2014:** Minimum 6-points of attachment mandatory and installed according to the manufacturer's instruction.

## 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.

## HELMET

For all cars, a full-face Snell: SA2015, SA2020, FIA: 8860-2010, 8860-2015 or 8860-2018 helmet and shield mandatory (goggles prohibited).

## PROTECTIVE CLOTHING

Drivers of dragsters must wear a suit meeting SFI Spec 3.2A/15 with SFI 3.3/15 gloves and SFI 3.3/15 boots. Drivers of Funny Cars and dragsters with canopies must wear a suit meeting SFI Spec 3.2A/20 with SFI 3.3/20 gloves and SFI 3.3/20 boots. Head sock 3.3 mandatory. A head sock is not mandatory when helmet is manufactured with a skirt and labeled as meeting SFI Spec. 3.3.

## LICENSE, NEW DRIVER

New driver must notify NHRA of intention to obtain a license and receive all required forms and rules for the category. Applicant must be minimum 18 years of age. All new

## Exhibition Vehicle Rulebook Supplement

drivers will pay a license application fee with the submission of a physical-exam form. Proof of car must be submitted and pass a vehicle inspection prior to NHRA issuing a permit, which will include NHRA membership and insurance, to begin initial licensing runs. New driver will be given a cockpit-orientation (blindfold) test. New driver must make a minimum of 12 test runs within a 90 day period or less. A two-day (minimum) period, for the 3 sessions. All runs must be made at a closed session. Blindfold test and test runs must be witnessed by two currently licensed jet exhibition drivers with at least three years' experience and NHRA Member track official. In Addition, final session must also be witnessed by an NHRA-designated person.

Test runs are typically divided into three sessions, as follows:

**Session 1:** Three half passes, one moderate pass.

**Session 2:** Four moderate passes.

**Session 3:** One moderate pass, three full passes.

(A driver with an NHRA competition license in any wheel-driven category may not cross-grade to a jet exhibition license, regardless of experience.) **In all categories, competition license will be granted or denied in NHRA's discretion.**

### LICENSED DRIVER, NEW VEHICLE

Any currently licensed NHRA exhibition-jet driver may cross-grade to any other exhibition-jet Dragster or Funny Car vehicle category. Proof of car must be submitted and pass a vehicle inspection prior to NHRA issuing a permit. Must be witnessed by two currently licensed jet drivers with a minimum of three years' jet-driving experience each. Runs may be made at open track session. Runs may be made in a single day. Driver will be given a cockpit-orientation (blindfold) test.

(3) three full passes must be completed.

### EXPIRED LICENSE

If license is expired one year or more, applicant must meet all new-driver requirements.

### PERFORMANCE LIMITS

Jet dragsters, 320.99 mph; jet Funny Cars, 305.99 mph

If a driver exceeds these limits, the following fines apply:

**FIRST OFFENSE: 1-10 mph:** \$500 fine. **11+ mph:** \$2,000 fine.

**SECOND OFFENSE: 1-10 mph:** \$1,500 fine/six-month suspension. **11+ mph:** \$5,000 fine/six-month suspension.

**THIRD OFFENSE: 1+ mph:** \$5,000 fine/indefinite suspension.

### ACCIDENTS OR OTHER ISSUES PROCEDURES

All accidents, engine problems other than routine maintenance, and/or repeated problems or failures of the same nature (Whether they occur at NHRA member tracks or facilities or not.) **MUST BE REPORTED TO THE NHRA TECHNICAL SERVICES DEPARTMENT IMMEDIATELY** (within 48 hours). Failure to report such incidents, careless operation of vehicle, and/or hot-end failure is in violation of NHRA rules and regulations and will result in penalties ranging from formal warning to immediate and

## Exhibition Vehicle Rulebook Supplement

indefinite suspension of exhibition privileges. In some instances, a monetary fine may be imposed. See current NHRA Rulebook for appeal procedures. Any procedure or requirement described herein may be waived or amended by NHRA, if NHRA in its sole judgment determines that such waiver or amendment is appropriate.

# JET TRUCK

THIS SUPPLEMENT ACCOMMODATES SPECIALIZED JET-POWERED TRUCKS AND IS A SUPPLEMENT TO THE CURRENT NHRA EXHIBITION JET PROGRAM. PARTICIPANTS IN THIS PROGRAM MUST CONSULT JET-POWERED DRAGSTER & FUNNY CAR FOR ANY ADDITIONAL APPLICABLE INFORMATION.

## **COMPETITION**

Jet trucks are considered exhibition vehicles and are restricted to single runs only. Side-by-side runs are prohibited. Jet trucks may not compete for prize money. See PERFORMANCE LIMITS.

## **REQUIREMENTS & SPECIFICATIONS**

### **ENGINE: 1**

#### **AFTERBURNER-TAILPIPE**

For butts, seams must be on bottom; overlap seam placement will be at the discretion of the technical inspector. Dump valve on afterburner manifold mandatory; valve to be actuated with primary chute lever (to prevent shutoff smoke).

#### **AIR INTAKE**

All air intakes must be securely screened (1/8-inch minimum, 1/4-inch maximum or equivalent). Such screening must be securely attached to the engine.

#### **CATCH CAN**

Fuel-overflow catch tanks of sufficient capacity to accommodate excess fuel on shutdown and adequate tank venting (minimum 1 quart) required on all vehicles. Use of hose clamps and/or tie wraps for mounting prohibited.

#### **CONTROL CABLES**

Manual afterburner control valve cable, minimum 1/4-inch. Fuel control cable must be minimum 3/16-inch. Must have secondary shutoff on main fuel line. Emergency shutoff on afterburner mandatory. See PARACHUTES for additional details.

#### **ENGINE(S)**

Engine(s) attitude must have down thrust; minimum -1 degree angle required. Front engine mounts must be expandable (TRUNION) type, allowing at least 3/16-inch, 360-degree lateral expansion. Permitted engines are J-34, J-46, J-60 (JT-12), J85-5 (CJ-610), J-79, Rolls Royce Viper 522. Maximum 2 engines allowed, except J-79, restricted to one engine only.

#### **FUEL FILTER**

A suitable fuel filter must be installed on the inlet side of the hot streak valve.

#### **FUEL**

Approved jet-type fuel only (Jet A, Jet A-1, kerosene, diesel). Only diesel fuel additives permitted. Separate water and methanol injection systems allowed. Racing gasoline permitted for starting purposes only.

### **FUEL TANK**

Must be securely mounted to frame with appropriate baffling (welded or equivalent). If pressurized, tank must be round. Mechanism to release fuel-tank pressure mandatory. If electrical device, switch must be “normally open” type.

### **INSTRUMENTS**

All instruments, gauges, and metering devices must be fully functional. The following instruments must be visible from the cockpit of each vehicle: tachometer (percent of rpm); exhaust-gas-temperature gauge (EGT); oil-pressure gauge/light (taken from pump-outlet housing).

## **BRAKES & SUSPENSION: 3**

### **BRAKES**

Caliper-type disc brakes required on all four wheels. Two separate hydraulic systems required; maybe front/rear or double system. All brake systems must be steel-vented rotor type.

### **SUSPENSION**

Functional suspension optional. Front suspension applications must be minimum four-bar radius rod type. Rear upper-shock eyes must be pinned or otherwise secured. Rear shocks must be installed in such a manner as to retain integrity of suspension in case of failure.

## **FRAME: 4**

### **GROUND CLEARANCE**

Minimum 3 inches from front of vehicle to 12 inches behind front axle centerline, which must be maintained at all times.

### **BUMPERS**

Vehicle must be equipped with a satisfactory bumper/nerf bar device so designed to prevent front tire from becoming first point of impact with guard wall at a 45-degree angle.

### **PARACHUTES**

Minimum of two (2) braking parachutes required. Primary parachute must be on a control system that will shut off engine when parachute is released. Secondary parachute must be used as an independent backup system with engine-shutdown capabilities (secondary fuel-shutoff bypass valve on main fuel line to work with secondary parachute). Must have at least two ways to positively shut off jet engine. Parachute mounts must be substantially bolted and/or welded in place; each parachute must utilize a separate mounting point. Minimum chute connection spool diameter: 1.50 inches. Parachutes and shroud lines must be mounted in such a position as to offer protection from tailpipe heat. Parachute attachment lines must be covered with 1/16-inch leather or NHRA-accepted material (silver tape prohibited). Steel, aluminum, or carbon-fiber parachute tubes only. Parachute packs prohibited.

### **ROLL CAGE**

Cage structure must be designed to protect driver from any angle, 360 degrees. Material used in construction must be a minimum of 1 1/2-inch x .095-inch chromoly or Docol R8 tubing when a funny car insert is also installed; otherwise 1 5/8-inch x .095-inch chromoly or Docol R8 tubing welded to frame. All vehicles must successfully pass NHRA inspection every two (2) years and have a serialized chassis sticker affixed to frame before participation. *INITIAL CERTIFICATION OF VEHICLES MUST BE DONE*

## Exhibition Vehicle Rulebook Supplement

*AT AN NHRA NATIONAL EVENT ONLY OR BY INDIVIDUAL APPOINTMENT SCHEDULED WITH THE NHRA TECHNICAL DEPARTMENT.* Vehicle may be re-inspected at any NHRA divisional event, National Open, national event, or by individual appointment with NHRA. Prior arrangements must be made with the national technical director, or division tech director. Drivers are instructed to bring all required safety apparel and have vehicle in ready-to-run condition. Change of ownership of the vehicle voids the current chassis and vehicle inspection; a recertification is required when ownership of the vehicle changes.

### **WEIGHT**

Maximum 7,500 pounds. All weights excluding driver and fuel. Certified weight certificate required.

### **WHEELBASE**

Minimum 120 inches; maximum 300 inches.

## **TIRES & WHEELS: 5**

### **TIRES**

Tires - Tires specifically built for racing only can be used front and rear. DOT tires for model truck permitted. Maximum height of any tire is 45 inches. *RECAPS NOT PERMITTED.* Visible cord damage in sidewall requires tire change. All casings must be of new manufacture. Minimum tread depth 4/32.

### **WHEELS**

Full floating hubs required on rear wheels.

## **INTERIOR: 6**

### **SHEET METAL**

All sheet metal within driver compartment must be aluminum or steel; magnesium prohibited.

## **BODY: 7**

### **BODY**

Must be an original or replica of a commercial truck or emergency vehicle to qualify for this program.

## **SUPPORT GROUP: 9**

### **FIRE EXTINGUISHING SYSTEM**

Must be equipped with an onboard fire extinguishing system of at least 10-pound capacity installed to provide protection for the driver. Extinguishing agents must be NHRA-accepted.

### **FIREWORKS**

The release of onboard fireworks prohibited.

### **SHUT OFF DEVICES**

Moving of the throttle to the maximum position arms an automatic shutoff device installed such that release of a driver actuated momentary switch will shut off all fuel to the engine (including the afterburner), and deploy either the primary chute or the emergency chute. The system may be electrically and/or pneumatically operated. In the absence of either electrical power or pneumatic pressure to the system, the system will prevent the engine from running, and loss of either electric power or pneumatic



## Exhibition Vehicle Rulebook Supplement

pressure to the system during the run will also shut off all fuel to the engine (including the afterburner).

Additionally, a timer, set at 0.2 seconds above the normal or expected elapsed time of the participating car, and armed by going to maximum throttle, shall be triggered either by the activation of the hot streak, and/or release of brake pedal/handle. Once activated, and timed out, the system shall shut off all fuel to the engine (including the afterburner), and deploy either the primary chute or the emergency chute.

Absolutely no delays, overrides, or bypasses of any description are permitted in any of the shutdown devices/systems.

**Note: Any other method for performing the shut-off function must be submitted in writing to NHRA and preliminarily approved in writing by the NHRA Technical Administrative Executive. Final approval will be given once the vehicle successfully completes the chassis inspection process.**

## **DRIVER: 10**

### **CREDENTIALS**

Valid NHRA jet truck license mandatory. Licensing is on an individual basis through the NHRA Technical Services Department. Contact NHRA for more information.

### **DRIVER LOCATION**

Driver must be located in front of engine and sealed off from intake and fuel system by a firewall and/or windows that extend and seal to the top of the driver's compartment. One seat for driver permitted. Secondary seat not permitted. Passengers not permitted at any time. Must have at least two methods to exit from vehicle (door, roof hatch, or removable windshield) with release operable from inside and outside of the vehicle.

### **DRIVER RESTRAINT SYSTEM**

A quick-release driver restraint system, with a 2-inch crotch strap, meeting SFI Spec 16.1 or 16.5 is mandatory in all cars. Driver restraint system must be clearly labeled as meeting SFI Spec 16.1 or SFI Spec 16.5 and be dated by manufacturer. SFI 16.1 or 16.5 3-inch wide shoulder harness straps folded over and sewn to be 2-inches wide by the original manufacturer in order to fit into head and neck restraint lips/channels are acceptable. Restraint system must be updated at two-year intervals from date of manufacture.

**Effective 1/1/2014:** Minimum 6-points of attachment mandatory and installed according to the manufacturer's instruction.

### **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.

### **HELMET**

## Exhibition Vehicle Rulebook Supplement

Full face helmet and shield (goggles prohibited) meeting Snell: SA2015, SA2020, FIA: 8860-2010, 8860-2015 or 8860-2018 Spec mandatory. See General Regulations.

### **PROTECTIVE CLOTHING**

Drivers must wear a suit meeting SFI Spec 3.2A/15. All drivers must wear SFI 3.3/15 gloves and SFI 3.3/15 boots and SFI Spec 3.3 head sock or skirted helmet.

### **LICENSING PROCEDURES**

Licenses will be issued restricting driver/vehicle as a unit to the vehicle in which licensing was conducted.

#### **LICENSE, NEW DRIVER**

New driver must notify NHRA of intention to obtain a license and all required forms and rules for the category. All new drivers will pay a license application fee with the submission of verification of physical examination. Proof of car and pass a vehicle inspection are required prior to NHRA issuing a permit, which will include NHRA membership and insurance, to begin initial licensing runs. Driver will be given a cockpit-orientation (blindfold) test. Driver must make a minimum of 12 test runs over a two-day (minimum) period. Blindfold test and two currently licensed jet-exhibition drivers with at least three years' experience and a NHRA Member track official must witness test runs. Final session an NHRA-designated person must witness test runs.

Test runs are typically divided into three sessions, as follows:

**Session one:** three half passes and one moderate run.

**Session two:** four moderate runs.

**Session three:** one moderate and three full runs with afterburner.

Full runs must be representative of vehicle's performance.

All sessions must be made at closed sessions. A minimum of 12 runs must be made over a period of two days (need not run consecutively). All runs must be completed over a period of 90 days or less. Upon completion of license runs, applicant must submit completed, signed application and time slips for all runs to NHRA Technical Services Department.

### **CROSS-GRADE REQUIREMENTS**

Any currently licensed jet vehicle driver may cross grade to jet truck by completing the following:

1. Applicant must receive authorization from NHRA Technical Services Department.
2. A cockpit-orientation test.
3. A minimum of three runs in front of standard witnesses.

### **LICENSED DRIVER, NEW VEHICLE**

A currently licensed jet truck driver may drive any other jet truck by making a minimum of one moderate orientation run and receiving authorization from NHRA Technical Services Department prior to making any full runs.

### **EXPIRED LICENSE**

If license is expired one year or more, applicant must meet all new-driver requirements.

### **PERFORMANCE LIMITS**

Maximum **220.99** mph. Limit will be *STRICTLY ENFORCED*. Exceeding the performance limit will result in the following:

## Exhibition Vehicle Rulebook Supplement

**FIRST OFFENSE: 1-10 mph:** \$500 fine. **11+ mph:** \$2,000 fine.

**SECOND OFFENSE: 1-10 mph:** \$1,500 fine/six-month suspension. **11+ mph:** \$5,000 fine/six-month suspension.

**THIRD OFFENSE: 1+ mph:** \$5,000 fine/indefinite suspension.

### **ACCIDENTS OR OTHER ISSUES PROCEDURES**

All accidents, engine problems other than routine maintenance, and/or repeated problems or failures of the same nature (Whether they occur at NHRA member tracks or facilities or not.) *MUST BE REPORTED TO THE NHRA TECHNICAL SERVICES DEPARTMENT IMMEDIATELY* (within 48 hours). Failure to report such incidents, careless operation of vehicle, and/ or hot-end failure is in violation of NHRA rules and regulations and may result in penalties ranging from formal warning to immediate and indefinite suspension of exhibition privileges. In some instances, a monetary fine may be imposed. See current NHRA Rulebook for appeal procedures. Any procedure or requirement described herein may be waived or amended by NHRA, if NHRA in its sole judgment determines that such waiver or amendment is appropriate.

## **TOP FUEL HARLEY**

### ***Designation:***

TFH, followed by motorcycle number.

Reserved for nitro burning motorcycles. Built specifically for all out drag racing.

## **REQUIREMENTS AND SPECIFICATIONS**

### **ENGINE: 1**

#### **ENGINE**

Must keep design features of Harley-Davidson engines (Pushrod, 45° to 90° VTwin). Carbureted, fuel injected or supercharged single or double engines with 200 cui. maximum displacement. Pushrod aftermarket heads are permitted (including 4 valve). Crankcase and all tanks containing fluids must have vent tubes routed to catch can or have a non-spill breather system on motorcycle. Superchargers must have rubber manifold connections or some form of "sneeze" valve. Supercharger blankets are mandatory. Must have "Bellypan" scatter shield under engine. SFI Specification 46.1 approved engine restraint systems are required. A nonflammable, oil absorbent liner mandatory inside of retention device. These restraints must be replaced or recertified by the manufacturer every two (2) years. Chest protectors are mandatory.

## **FUEL**

Fuel to be mononitromethane and/or methyl alcohol only. No propylene oxide or nitrous permitted. Refer to General Regulations Section 1:6 of the current NHRA Rulebook for nitromethane regulations.

## **DRIVETRAIN: 2**

### **CHAIN GUARD**

Mandatory on all motorcycles. Chain guard must be .060-inch steel or 1/8-inch aluminum and must be securely mounted in three places. Chain guard must cover the width and at least the top run of the chain, from centerline to centerline of sprockets.

### **CLUTCH**

Any type dry friction clutch, including multi-stage setup, permitted. Clutch engagement must be by centrifugal force only and must exhibit reliable disengagement at idle speed. Clutch must have a protective guard made of .060-inch steel or 1/8-inch aluminum that covers the unit 360 degrees.

### **TRANSMISSION**

Any transmission or high-gear-only system may be used.

## **BRAKES AND SUSPENSION: 3**

### **BRAKES**

Hydraulic type, front and rear, mandatory. Minimum size for dual rotor is 9-inch diameter, 1/8-inch thickness for rotors. Single rotor must be over 11-inch diameter.

### **CONTROLS**

Handlebar controls must be located in safe, workable position. Foot pegs and foot controls must be located in safe, workable position and must be mounted in a safe, craftsman-like manner. Rider must be able to shut off fuel without removing hands from handlebars. A secondary shut-off device attached to rider (in the event of premature exit from motorcycle) must mechanically control the fuel shut-off valve. Lanyard for shut-off must be run through an eyelet or guide, allowing the lanyard to be pulled in any direction and closing shut-off. Dual cable push-pull throttle assembly is mandatory.

### **SUSPENSION**

Front suspension minimum size 32 mm and minimum travel of 2 inches. Front fork suspension outer tubes must be a one-piece design. A steering dampener is mandatory. Rear suspension not required. Fork stops required; must limit the turning arc to 28 degrees.

## **FRAME: 4**

## Exhibition Vehicle Rulebook Supplement

### **FRAME**

Any type permitted. All frames should be heliarc welded and main rails must be chromoly or Docol R8 and have a minimum diameter of 1-1/8 inch. All major frame tubing must have at least .065-inch wall thickness. Rake angle must be at least 40 degrees. Alternative frame materials must be submitted to NHRA for approval. Frames constructed before 1999 and approved for competition may use one (1) x .058 inch tubing.

### **GROUND CLEARANCE**

Minimum of 2 inches with rider on motorcycle and 10 psi in rear tire (includes exhaust and kickstand).

### **WHEELBASE**

Minimum of 85 inches.

### **WHEELIE BARS**

Wheelie bars are required. Minimum length from center of rear axle to center of wheelie bar axle must be at least 84 inches but not exceed 120 inches. Must be securely cross-braced.

## **TIRES AND WHEELS: 5**

### **TIRES**

Must be specified for racing use by manufacturer. Any tire size is permitted

### **WHEELS**

Rear wheel minimum 15 inch, maximum 18 inch. Front wheel minimum 16 inch, maximum 19 inch.

## **SEAT: 6**

### **SEAT**

Seat, tail section and rear fender may be incorporated into one unit and must include a step to prevent rider sliding backward.

## **BODY: 7**

### **BODY**

No body parts are required, except rear fender that must cover width of tire and extend past the rear axle.

### **FAIRING**

Permitted. Must be mounted solidly to frame tubes.

## **ELECTRICAL: 8**

### **IGNITION**

## Exhibition Vehicle Rulebook Supplement

Any ignition system is permitted.

### **CHARGING SYSTEM**

Not required.

### **STARTING SYSTEM**

Must be electric external starter. Battery top covers are required. No rollers. No push starts. Jack stands are mandatory for starting. No dry hops in pits.

### **CONTROL SWITCHES**

Must be mounted and constructed in an accepted manner. Must have an emergency fuel shut off.

### **LIGHTS**

Not required.

## **SUPPORT GROUP: 9**

### **COMPUTER/DATA RECORDERS**

Only data gathering computers are permitted.

## **RIDER: 10**

### **CREDENTIALS**

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

### **HELMET**

Full-face Snell: M2015, M2020, SA2015, SA2020, FIA: 8860-2010, 8860-2015 or 8860-2018 helmet mandatory; shield mandatory (goggles prohibited). See General Regulations 10:7 in NHRA Rulebook.

### **PROTECTIVE CLOTHING**

Full all-leathers or SFI Spec 40.1/2 suit, leather boots that completely cover the ankle with toe-area reinforcement, and full-finger leather gloves are mandatory. Gloves must be Kevlar-lined or equipped with slide buttons and have knuckle armor and palm reinforcement. Suits may be one-piece design or joined with a zipper at the waist. Reinforcement and/or armor in the knee, elbow, shoulder, and knuckle areas required. Spine/back protector and ballistic chest protector mandatory.

### **RACE TEAM CLOTHING**

All team crewman that help start, assist in burnout and stage race motorcycle must wear a uniform shirt that relates to their specific team.

## **SPECIAL FUEL**

## Exhibition Vehicle Rulebook Supplement

**Notice:** Special Fuel is not an NHRA category or eliminator. It is not part of the NHRA Exhibition program. It has been established primarily for the purpose of licensing drivers of vehicles that use nitromethane as a fuel and run elapsed times slower than 5.99 seconds in the quarter-mile.

These rules are designed as minimum safety rules & regulations for nitromethane vehicles running 6.00 (3.66 eighth-mile) to 7.99 (4.99) seconds. Individual groups of vehicle owners and NHRA member tracks are allowed to implement specific and additional restrictions as to body style, chassis type, and specific E.T. range within the rules as written. Refer to the current NHRA Rulebook or rule amendments for vehicle/driver requirements, specifications, and general regulations.

# REQUIREMENTS & SPECIFICATIONS

## ENGINE: 1

### ENGINE(S)

Any internal-combustion reciprocating 90-degree automotive engine(s) permitted.

### EXHAUST

Must be directed away from driver, track, and vehicle.

### FUEL

Nitromethane mandatory.

### FUEL SYSTEM

Metal fuel tank or fuel cell required. Fuel lines must be located outside driver's compartment. Fuel tanks must be enclosed in a round tube frame, a minimum 1 1/4-inch O.D. x .065-inch chromoly or Docol R8 tubing if mounted outside of frame.

### LIQUID OVERFLOW

Catch can mandatory if coolant is used.

### NITROUS OXIDE

Prohibited.

### SUPERCHARGER

Maximum size 14-71 Roots type only. SFI Spec 14.3 supercharger restraint system mandatory. Aluminum studs required. Burst panel meeting SFI Spec 23.1 required. SFI Spec 14.1 restraint permitted with Roots-type 6-71 supercharger and nitromethane. Turbochargers, screw-, and centrifugal-type superchargers prohibited.

### VALVE COVERS

Cast or fabricated metal valve covers, using all attachment bolt holes, mandatory.

## DRIVETRAIN: 2

### CLUTCH, FLYWHEEL, FLYWHEEL SHIELD

Flywheel and clutch meeting SFI Spec 1.3 or 1.4 mandatory. Flywheel shield meeting SFI Spec 6.2 or 6.3 mandatory. Clutch management system prohibited. Release of clutch must be the result of a manual operation by driver's foot. See General

## Exhibition Vehicle Rulebook Supplement

Regulations.

### **DRIVELINE COVER**

Each end of driveshaft must have a 360-degree cover of minimum 1/16-inch steel or 1/8-inch aluminum. Rear cover must surround 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 legs. All covers must be securely mounted to frame, a suitable cross member, or the third member.

### **REAR END**

Aftermarket full-floating or live axle assembly mandatory on all vehicles running 7.49 (4.85) seconds or quicker.

### **TRANSMISSION**

In-out box permitted with reverser. Aftermarket planetary type with reverser permitted. A one-piece ballistic shield covering all units mandatory. Shield must meet SFI Spec 4.1. OEM or OEM modified transmission prohibited. See General Regulations.

## **BRAKES: 3**

### **BRAKES**

Minimum two rear wheel (one caliper per wheel) hydraulic brakes mandatory.

### **STEERING**

If removable steering wheel is used, commercially available quick-disconnect steering wheel adapter meeting SFI Spec 42.1 mandatory.

### **WHEELIE BARS**

Permitted. Wheels must be nonmetallic.

## **FRAME: 4**

### **PARACHUTES**

Dual parachutes mandatory on vehicles running 7.49 and quicker or over 190 mph. Parachute pack and unpacked shroud lines must be protected with fire-resistant material from mounting point to the pack.

### **ROLL CAGE**

Vehicles running 7.49 (4.49) e.t. and quicker must have a roll cage meeting SFI specifications 25.1E, 25.2, 10.5, 10.3, 10.2, 10.1E, 2.1, 2.2B, 2.3N, 2.5B, or 2.4B. Vehicles running 7.50 e.t. or slower must meet applicable SFI Spec requirements. Plating of any chassis manufactured after 1/1/99 prohibited. Chassis must be inspected every three years and have an NHRA chassis sticker affixed to the cage.

### **SUSPENSION**

Front suspension optional. Rigid rear suspension permitted on dragsters, alteredds and Funny Cars only.

### **WHEELBASE**

Minimum 100 inches, maximum 125 inches, bodied cars. Dragster maximum 300 inches. Measured on long side.

## **INTERIOR: 6**

### **SEAT**



## Exhibition Vehicle Rulebook Supplement

Seat must be metal or fiberglass. Magnesium prohibited. A flame retardant material covered seat is mandatory.

### **BODY: 7**

#### **AIRFOILS, WINGS**

Permitted. Nonadjustable during run.

#### **BODY**

Center-steer dragster, altered, roadster, or Funny Car-type body permitted. Pro Mod-or Pro Stock-type vehicles prohibited.

#### **FIREWALL**

Must be equipped with a minimum .032-inch aluminum or .024-inch steel firewall. Must completely seal top to bottom and side to side, driver's compartment from engine compartment. Use of magnesium is prohibited.

### **ELECTRICAL: 8**

#### **IGNITION**

Must have positive on/off switch, capable of de-energizing the entire ignition system, in good working order. Located within easy reach of the driver.

#### **MASTER CUTOFF SWITCH (for vehicles with battery)**

Mandatory. Must cut off all electrical functions of vehicle. See General Regulations.

### **SUPPORT GROUP: 9**

#### **FIRE EXTINGUISHER**

Minimum 20 pounds. NHRA-accepted fire extinguishing system mandatory on all Funny Cars and enclosed body altered. Minimum 5 pounds for front-engine dragsters and open-body altered. Funny Car and enclosed altered systems must be divided so that a minimum of 15 pounds is directed into engine compartment by means of nozzle outlets placed in front of each bank of exhaust headers. Remaining 5 pounds or more should be dispersed in driver's compartment by means of an atomizing nozzle placed at driver's feet. Must be installed as per manufacture specifications. Fire bottle activation cables must be installed inside frame where cables pass engine/bell housing area. See General Regulations for NHRA-accepted fire-extinguishing agents.

### **DRIVER: 10**

#### **ARM RESTRAINTS**

Mandatory on all open-bodied vehicles.

#### **CREDENTIALS**

NHRA Special Fuel license required.

#### **DRIVER RESTRAINT SYSTEM**

Minimum six point three-inch driver restraint system meeting SFI Spec 16.1 or 16.5 mandatory. All belts and mounting points must be covered with either sheet metal or an acceptable fire-resistant material. Restraint system must be updated at two-year intervals from date of manufacture.

## Exhibition Vehicle Rulebook Supplement

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

Mandatory for the driver of all cars that exceed 200 mph. 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.

### **HELMET**

All drivers must wear a full face helmet and shield (goggles prohibited) meeting Snell: SA2015, SA2020, FIA: 8860-2010, 8860-2015 or 8860-2018. Fresh air breathing system permitted. Compressed air only. Air can be supplied on demand or by constant pressure.

### **NECK COLLAR**

See Head and Neck Restraint Device/System above; otherwise required. Full 360-degree type mandatory. Must meet SFI Spec 3.3.

### **PROTECTIVE CLOTHING**

Driver's suit meeting SFI Spec 3.3/15, gloves 3.3/15, boots/shoes 3.3/15 and SFI 3.3 head sock mandatory. Drivers in front-engine, open-bodied cars (including Funny Cars) must use a suit meeting SFI Spec 3.2A/20, gloves 3.2A/20, boots 3.3/20 and SFI 3.3 head sock. A head sock is not mandatory when helmet is manufactured with a skirt labeled as meeting SFI Spec 3.3.

### **LICENSE REQUIREMENTS**

New driver must notify NHRA of intention to obtain a license and all required forms and rules for the category. All new drivers will pay a license application fee with the submission of verification of physical examination. A completed standard NHRA medical form must be in hand before any test runs are made. NHRA standard license application completed and signed at conclusion of test runs. Six (6) runs prescribed on form. Two (2) witnesses required. Witness may be any currently licensed Top Fuel, Funny Car, Top Alcohol Dragster, Top Alcohol Funny Car, or Advanced E.T. driver. Final time must be quicker than 7.99 seconds in the quarter-mile. All completed original forms and time slips must be submitted to NHRA Headquarters Field Office.

### **LICENSE SUSPENSION**

Any driver found violating NHRA rules and/or regulations may be subject to penalties as determined appropriate in the sole and absolute discretion of the NHRA.

### **PERFORMANCE LIMITS**

Special Fuel vehicles are limited to an E.T. of 6.00 seconds or slower in the quarter-mile and 3.66 seconds or slower in the eighth-mile using these specifications. In addition, a maximum speed limit of 255.00 mph is imposed. Vehicles running quicker than 6.00 (3.66) seconds or faster than 255.00 mph must meet all Funny Car (Section 17) or Top Fuel dragster (Section 18) requirements for chassis, safety equipment, and licensing in current NHRA Rulebook.

## **EXHIBITION WHEEL-STANDER**

Refer to the current NHRA Rulebook or rule amendments for vehicle/driver requirements, specifications, and general regulations.

## REQUIREMENTS AND SPECIFICATIONS

### ENGINE: 1

#### COOLANT SYSTEM/OVERFLOW

Operational coolant system containing a maximum of 15 gallons of water permitted. Tank or vent must be behind rear axle. Vent must terminate in a minimum 1-quart catch can. Vent into exhaust permitted.

#### ENGINE(S)

Internal-combustion engine(s) required. Harmonic balancer meeting SFI Spec 18.1 required.

#### EXHAUST SYSTEM

Exhaust must be directed to rear of vehicle away from driver and fuel tank.

#### FIRE SHOW

Driver/owner must submit to NHRA a complete work schematic diagram and description with photos of any onboard fire show, pyrotechnic display, or olfactory display. All such shows must be NHRA-accepted. Upon acceptance, any change or alterations to the as-submitted diagrams or operation of show must be accepted by NHRA before implementation. All liquids used in such displays must be located outside of driver's compartment and installed in accepted vessels. All propellants or other fluids under pressure must be in DOT-approved vessels. Flame show igniters must be installed in a protected manner and accepted by NHRA. Steel or steel-braided line is required throughout the system. Any substance/fluid must be clearly defined and stated along with Material Substance Data Sheet (MSDS) on file with NHRA. *Prohibited Items:* Explosives, fireworks, rockets, dynamite, flares, solid fuel, hydrazine, nitroglycerin, blasting caps, gun powder, poisonous or carcinogenic substances, propane, or any compound used to create smoke.

#### FUEL

Gasoline, racing gasoline, alcohol, gasohol, diesel, ethanol, natural gas, and propane permitted. Nitromethane permitted on naturally aspirated engines only.

#### FUEL SYSTEM

Fuel tank must be isolated from driver by a firewall constructed of a minimum of .024-inch steel or .032-inch aluminum. Steel-braided fuel lines required. Fuel lines must be located outside driver compartment. Fuel tanks/cells must be within confines of the body. A quick-action fuel-shutoff valve within easy reach of driver and located in the main fuel line between tank and induction system required.

#### MOTOR PLATE

Mandatory (unless equipped with block side mounts). Must be constructed of 1/4-inch aluminum or 1/8-inch steel. A 1/4-inch steel plate required for manual-transmission vehicles.

#### NITROUS OXIDE

Permitted on supercharged and naturally aspirated engines. Nitrous bottle(s) in driver compartment must be equipped with a relief valve and vented to the outside of vehicle. Bottle(s) must be stamped with a DOT-1800 pound rating and permanently mounted (no hose clamps or tie wraps). Hoses from bottle(s) to solenoid must be high-pressure steel-braided or NHRA-accepted hoses. Any external heating of bottles prohibited.

#### SUPERCHARGER, TURBOCHARGER

Permitted on gasoline-, racing gasoline- and alcohol-burning vehicles. Supercharger

## Exhibition Vehicle Rulebook Supplement

restraint system meeting SFI Spec 14.1 mandatory. All high-helix and non-OEM screw superchargers are prohibited.

### **VALVE COVERS**

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

## **DRIVETRAIN: 2**

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

Flywheel and clutch meeting SFI Spec 1.1, 1.2, 1.3, or 1.4 mandatory. Flywheel shield meeting SFI Spec 6.1 required on vehicles using SFI Spec 1.1 clutch. SFI Spec 6.2 or 6.3 mandatory on all vehicles using SFI Spec 1.2 clutch with more than 2 discs or SFI Spec 1.3 or 1.4 clutches with 2 discs maximum. Supercharged or turbocharged cars and all cars using nitrous oxide require an SFI Spec 6.2 or 6.3 shield.

### **REAR END**

Aftermarket or full floating axles mandatory.

### **TRANSMISSION, AUTOMATIC**

Transmission shield meeting SFI Spec 4.1 mandatory. Automatic-transmission flex plate meeting SFI Spec 29.1 and flex plate shield meeting SFI Spec 30.1 mandatory. Shifter must be equipped with a spring-loaded reverse lockout device. Functional neutral safety switch mandatory.

### **TRANSMISSION, AFTERMARKET PLANETARY**

Transmission shield meeting SFI Spec 4.1 mandatory.

### **V-DRIVE**

Homemade cast-iron V-drives must be covered with 1/8-inch steel or 1/4-inch aluminum shield securely mounted. Must be full width of V-drive.

## **BRAKES & SUSPENSION: 3**

### **BRAKES**

Two (2) separate brake systems must be employed, one for stopping and one for guidance. Vented-disc type only. Front brakes optional. Master cylinder must have 1.5 times the stopping and steering volume of wheel cylinders. Vented discs from or intended for a full-size vehicle required.

### **STEERING**

Quick-disconnect adapter for removable steering wheel must meet SFI Spec 42.1.

### **SUSPENSION, FRONT**

Optional. Minimum specification for tube axle is 1 5/8 inches diameter.

### **SUSPENSION, REAR**

Optional.

## **FRAME: 4**

### **BALLAST**

Permitted. Maximum 500 pounds. No liquid or loose ballast allowed. Removable weight must be secured to chassis by two (2) 1/2-inch bolts per 100 pounds.

### **PARACHUTE**

Mandatory.

### **ROLL CAGE**

Mandatory. All cage structures must be designed to protect driver from any angle 360 degrees. Minimum requirements are 1 5/8-inch x .118-inch wall mild steel or 1 5/8-inch

## Exhibition Vehicle Rulebook Supplement

x .083-inch chromoly or Docol R8 tubing. Frame rails must be minimum 2-inch x 3-inch x .120-inch wall thickness rectangular tubing or 1 5/8-inch x .118-inch mild steel or 1 5/8-inch x .083-inch chromoly or Docol R8 round tubing. Any vehicle that was originally constructed with front and rear sub frames must have connector to tie sub frame material. Cab forward vehicles must have additional tubes across front of cage. Minimum two (2), in addition to front cross member in this area. All cages must be inspected by NHRA and have a serialized Exhibition Chassis Certification sticker affixed before vehicle may be operated at any NHRA member track.

### **SKID PLATES**

Optional. If wheels are used, minimum requirement, 3,500 pounds, FAA-rated 6-inch diameter.

### **WEIGHT**

Minimum: 2,000 pounds. Maximum: 4,000 pounds.

### **WHEELBASE**

Minimum: 90 inches.

## **TIRES & WHEELS: 5**

### **TIRES**

Front tires must be automotive type listed by manufacturer for racing purposes or have a minimum four-ply rating.

### **WHEELS**

Must be automotive-type OEM or aftermarket wheels.

## **INTERIOR: 6**

### **SEAT**

Aftermarket race-type seat required. Must be properly braced, framed, and supported. Aluminum, fiberglass, carbon fiber, or double-layer poly type permitted.

### **SHEET METAL**

Driver compartment must be aluminum, steel, or fiberglass. Magnesium prohibited.

### **UPHOLSTERY**

Optional.

### **VISIBILITY**

Forward visibility is mandatory during all operations of vehicle. Both lanes must be visible to driver during a wheels-up operation. All vehicles must provide a minimum of one opening for a driver unassisted exit and entry from vehicle. Center steering permitted. Lift-up bodies must have clearly marked outside actuated latches on front of body. Tinted windows permitted; must not inhibit driver's view. All bodies must be accepted by NHRA. Body change or transfer requires re-inspection by an NHRA-authorized representative.

## **BODY: 7**

### **FIREWALL**

Mandatory. Minimum requirement: .024-inch steel or .032-inch aluminum. Must fully isolate the driver from engine. Firewall must extend from top of driver's compartment to bottom of frame or belly pan and side to side in driver's compartment.

## **ELECTRICAL: 8**

## Exhibition Vehicle Rulebook Supplement

### **BATTERIES**

Must be located outside of driver's compartment and securely mounted.

### **MASTER CUTOFF**

Mandatory. Must disconnect all electrical functions.

## **SUPPORT GROUP: 9**

### **FIRE EXTINGUISHER**

All vehicles must be equipped with a 10-pound onboard fire extinguishing system installed to provide protection for driver and a second nozzle in engine compartment.

### **DRIVING LIMITS**

All wheels-up runs of two vehicles must be made in one lane only for each vehicle. Crossing centerline permitted on single run only. Maximum down track distance wheels up is 200 feet past finish line. Wheels-up runs toward starting line permitted; must not go past eighth-mile mark.

### **COMPETITION**

Wheel-standers permitted to run side by side with other wheel-standers. Competition with any other type vehicle is prohibited.

### **OCCUPANTS**

Passengers and/or a second seat prohibited.

### **PHOTOS**

A full set of photos of vehicle must be submitted to NHRA upon initial inspection and/or upon any change of body. Photos shall consist of front, rear, side, and 3/4 front views.

### **VEHICLE CHANGES**

Any changes in the as-originally-inspected condition, including change of ownership, of the vehicle may require a re-inspection. Contact NHRA Technical Services Department.

### **WARM-UPS**

An NHRA-licensed wheel-stander driver must be in the driver position anytime vehicle is running.

## **DRIVER: 10**

### **CREDENTIALS**

NHRA Exhibition Wheel-stander license mandatory.

### **DRIVER**

Driver and vehicle are licensed as a unit. Each driver must have all licensed vehicles listed on license in order to operate any vehicle.

### **DRIVER RESTRAINT SYSTEM**

Driver restraint system meeting SFI Spec 16.1 or SFI Spec. 16.5 mandatory. Restraint system must be updated at two-year intervals from date of manufacture. All belts used must be covered with a fire-resistant covering. Restraint system must be worn until engine is shut off.

### **HELMET**

For all cars, a full-face meeting Snell: SA2015, SA2020, FIA: 8860-2010, 8860-2015 or 8860-2018 helmet and shield mandatory (goggles prohibited). Fresh air breathing system permitted. Compressed air only. Air can be supplied on demand or by constant pressure.

### **PROTECTIVE CLOTHING**

Jacket and pants or suit meeting SFI Spec 3.2A/15, SFI Spec 3.3/15 gloves, and SFI Spec 3.3/15 boots mandatory, except nitromethane-burning naturally aspirated cars:

## Exhibition Vehicle Rulebook Supplement

Jacket and pants or suit meeting SFI Spec 3.2A/20, SFI Spec 3.3/20 gloves, and SFI Spec 3.3/20 boots with gloves and boots meeting SFI Spec 3.3/20. An SFI 3.3 head or skirted helmet is required on all cars.

### **LICENSING, NEW DRIVER**

New driver must notify NHRA of intention to obtain a license and all required forms and rules for the category. All new drivers will pay a license application fee with the submission of verification of physical examination. Contact NHRA Technical Services Department for all forms and rules. Vehicle must be inspected, certified, and have an NHRA chassis sticker affixed to roll cage prior to any test runs. Applicant must have a completed NHRA physical form in hand before any test runs are made. Physical required every two years. A licensing committee of one currently licensed NHRA Exhibition Wheelstander driver with a minimum of four years continuous experience must witness all license runs. In addition, an authorized NHRA member track official must observe all test sessions. Committee shall make recommendation to NHRA as to whether to issue a license. No committee member may have a vested interest in vehicle or applicant.

### **Three sessions are required for license.**

**Session one:** eighth-mile run; two moderate runs.

**Session two:** one moderate run; two full runs.

**Session three:** three full runs witnessed by an NHRA division director, division tech director, or NHRA-authorized representative.

A full run is defined as a wheels-up operation from starting line to finish line. All license runs must be down track single runs only. Sessions one, two and three must be conducted at a closed session at an NHRA member track. All sessions (runs) must be made in alternating lanes — one left, one right, etc. The license committee will conduct a blindfold cockpit-orientation test.

Physical form must be submitted with renewal form. NHRA may require renewing drivers to submit proof of having performed wheel-stander driving skills a minimum of four times within the previous two-year period. Accepted proof may be affidavit signed by NHRA track operator.

### **EXPIRATION**

All licenses expire on date listed on license. No grace period. Driver with license expired for period of one year may be required to complete NHRA new driver requirements. Currently licensed Exhibition Wheel-stander drivers wishing to cross over to any other licensed and inspected wheel-stander vehicle may do so by submitting a license form and a processing fee.

### **VEHICLE INSPECTION NEW VEHICLE**

Valid for two years. Expires on last day of month punched on chassis sticker. No grace period. Exhibition Wheel-stander vehicles and drivers are licensed as a unit. Each driver is licensed to a given vehicle. All vehicles are initially inspected at national events only. All fees must be paid at completion of successful inspection. Contact NHRA for appointment.

### **VEHICLE INSPECTION RENEWAL**

May be done at any location; call NHRA for appointment. Submit all license forms, physical form, and time slips along with appropriate fees to NHRA Technical Services

## Exhibition Vehicle Rulebook Supplement

Department.

### **SPECIAL VEHICLES**

Any vehicle that fails to comply with parameters of these regulations but falls within the general outline and intent of this program may be considered on an individual basis. Applicants are urged to contact the NHRA Technical Services Department before construction of any vehicle.

### **SPEED LIMIT**

Maximum allowable speed limit: **150 mph**. Exceeding speed limit at any time may result in the following sanctions:

**FIRST OFFENSE:** 1-10 mph over limit: \$500 fine; 11 mph or greater: \$500 fine.

**SECOND OFFENSE:** 1-10 mph over limit: \$1,500 fine; 11 mph or greater: \$5,000 fine and 6-month suspension of license.

**THIRD OFFENSE:** Exceeding limit by 1 mph or greater: \$5,000 fine and indefinite suspension.

Any procedures or requirements described herein may be waived by the NHRA, if NHRA in its sole judgment, determines that such a waiver or amendment is appropriate. Violations of the NHRA Exhibition Wheel-stander rules and regulations, limits, or policies, may result in penalties ranging from formal warning to immediate and indefinite suspension of all driving privileges. All accidents, engine problems other than routine maintenance, and/or repeated problems or failures of the same nature (Whether they occur at NHRA member tracks or facilities or not.) Any events or incidents (**Whether they occur at NHRA member tracks or facilities or not.**) other than normal operation of any vehicle licensed under this program must be reported to the NHRA Technical Services Department within 48 hours. Failure to do so may result in suspension of license and/or other penalties, as NHRA deems appropriate.

## **SPORTSMAN MOTORCYCLE**

### **DESIGNATION**

Part of the Division 4, 5, 6, and 7 programs. For motorcycles snowmobiles and ATVs running between 6.00 and 11.99 seconds, using a handicapped start and a .4-second Pro Tree or .5-second full Tree. Requirements and specifications for NHRA Sportsman Motorcycle Series are the same as those for E.T. Motorcycle, Advanced E.T. Motorcycle, ET Snowmobile, and All-Terrain Vehicle (ATV) – Sections 4E, 4F, 4G, and 4H of the NHRA Rulebook – with some exceptions. ET breaks, Pro/full tree, permitted electronics (i.e., electronic-controlled functions such as delay boxes, throttle stops, roll counters, down track rev limiters, and electronic, or rpm-controlled shifters, data recorders), other components, and permitted vehicles may vary by division. See the tech section of the applicable Division website for specific requirements. Refer to the current NHRA Rulebook or rule revisions for vehicle/rider requirements, specifications, and general regulations.



# **TWO-SEATER DRAGSTER RIDE-ALONG PROGRAM**

- **Failure to follow the rules below can result in being removed from the list of NHRA accepted two-seater programs and other penalties in NHRA's sole and absolute discretion.**
- Program may only be offered by a legitimate drag racing school, as determined in the sole and absolute discretion of NHRA, with a minimum of 10 years instructional experience. **Currently accepted two-seater programs: Frank Hawley's Drag Racing School, Pure Speed Drag Racing, Roy Hill's Drag Racing School, and Twisted Motorsports Drag Racing Experience School.**
- **Any vehicle with more than two seats is prohibited.**
- Beginning January 1, 2020, any drag racing school wishing to participate in this program and not previously on the NHRA accepted two-seater program list, must submit a drag racing training curriculum to NHRA for review. Inclusion in this program is only official after receiving acceptance in writing from NHRA.
- Two-seater dragsters limited to single runs only – no side by side activity. Maximum of two passengers (one driver and one passenger) per vehicle.
- Quarter-mile performance limited to 8.50 ET or slower and 160 MPH maximum.
- Two-seater dragster must meet current NHRA rules for 7.50 second or slower ET dragsters. Chassis must meet SFI 2.7. Due to its unique configuration, each two-seater dragster must be individually inspected and accepted by NHRA prior to being permitted to run. Beginning September 1, 2020, any two-seater dragster requiring an initial chassis inspection or chassis reinspection must be affixed with a separate chassis inspection label for each of the two cockpits. Two-seater dragsters are further restricted to a maximum 520 cubic inch gasoline burning engine. Supercharger, turbocharger, methanol, nitrous oxide, or similar performance enhancing modifications, fuels or additives, prohibited.
- Passenger must wear same level of protective equipment as driver – at a minimum, SFI 3.2A/5 jacket and pants, SFI 3.3/1 gloves, neck collar, arm restraints, SFI 16.1 driver restraint system, and minimum Snell: M2015, M2020,

## Exhibition Vehicle Rulebook Supplement

SA2015, SA2020, 31.1/2015, 31.1/2020, FIA: 8860-2010, 8860-2015 or 8860-2018 helmet.

- Minimum age of passenger 18.
- Passengers must sign the appropriate Waiver and Liability Releases as required by the Liability Insurance carrier.
- Passenger must be given written and verbal instruction prior to riding. Orientation to include familiarization with driving equipment, explanation of how to release driver restraint system, and detailed explanation of waiver and release.
- Passenger must be capable of exiting the vehicle unassisted.

# **SPECIALTY VEHICLES**

## **JCB BACKHOE**

- The JCB Backhoe design was been submitted to and accepted by the NHRA Technical Department. All design documentation is on file with the NHRA Technical Department. Any changes or modifications to the design of the JCB Backhoe must be resubmitted to the NHRA Technical Department for acceptance prior to the vehicle's use at any NHRA member track.
- Single runs only permitted.

## **DRIVER: 10**

### **CREDENTIALS**

NHRA Specialty Vehicle license mandatory.

### **DRIVER**

Driver and vehicle are licensed as a unit. Each driver must have all licensed vehicles listed on license in order to operate any vehicle.

### **DRIVER RESTRAINT SYSTEM**

Driver restraint system meeting SFI Spec 16.1 or 16.5 mandatory. Restraint system must be updated at two-year intervals from date of manufacture. All belts used must be covered with a fire-resistant covering. Restraint system must be worn until engine is shut off.

### **HELMET**

For all cars, a full-face meeting Snell: SA2015, SA2020, FIA: 8860-2010, 8860-2015 or 8860-2018 helmet and shield mandatory (goggles prohibited). Fresh air breathing system permitted. Compressed air only. Air can be supplied on demand or by constant pressure.

## Exhibition Vehicle Rulebook Supplement

### **PROTECTIVE CLOTHING**

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

### **LICENSING, NEW DRIVER**

New driver must notify NHRA of intention to obtain a license and all required forms and rules for the category. All new drivers will pay a license application fee with the submission of verification of physical examination. Contact NHRA Technical Services Department for all forms and rules. Vehicle must be inspected, certified, and have an NHRA chassis sticker affixed to roll cage prior to any test runs. Applicant must have a completed NHRA physical form in hand before any test runs are made. Physical required every two years.

### **Three sessions are required for license.**

**Session one:** eighth-mile run; two moderate runs.

**Session two:** one moderate run; two full runs.

**Session three:** three full runs witnessed by an NHRA division director, division tech director, or NHRA-authorized representative.

A full run is defined as operation from starting line to finish line. All license runs must be down track single runs only. Sessions one, two and three must be conducted at a closed session at an NHRA member track. All sessions (runs) must be made in alternating lanes — one left, one right, etc. The license committee will conduct a blindfold cockpit-orientation test.

Physical form must be submitted with renewal form.

### **EXPIRATION**

All licenses expire on date listed on license. No grace period. Driver with license expired for period of one year may be required to complete NHRA new driver requirements.

### **VEHICLE INSPECTION NEW VEHICLE**

Valid for two years. Expires on last day of month punched on chassis sticker. No grace period. Exhibition Wheel-stander vehicles and drivers are licensed as a unit. Each driver is licensed to a given vehicle. All vehicles are initially inspected at national events only. All fees must be paid at completion of successful inspection. Contact NHRA for appointment.

### **VEHICLE INSPECTION RENEWAL**

May be done at any location; call NHRA for appointment. Submit all license forms, physical form, and time slips along with appropriate fees to NHRA Technical Services Department.

### **SPEED LIMIT**

Maximum allowable speed limit: **100 mph**. Exceeding speed limit at any time may result in the following sanctions:

**FIRST OFFENSE:** 1-10 mph over limit: \$500 fine; 11 mph or greater: \$500 fine.

**SECOND OFFENSE:** 1-10 mph over limit: \$1,500 fine; 11 mph or greater: \$5,000 fine and 6-month suspension of license.

**THIRD OFFENSE:** Exceeding limit by 1 mph or greater: \$5,000 fine and indefinite

## Exhibition Vehicle Rulebook Supplement

suspension.

Any procedures or requirements described herein may be waived by the NHRA, if NHRA in its sole judgment, determines that such a waiver or amendment is appropriate. Violations of the NHRA Exhibition Specialty Vehicle rules and regulations, limits, or policies, may result in penalties ranging from formal warning to immediate and indefinite suspension of all driving privileges. All accidents, engine problems other than routine maintenance, and/or repeated problems or failures of the same nature (Whether they occur at NHRA member tracks or facilities or not.) Any events or incidents (**Whether they occur at NHRA member tracks or facilities or not.**) other than normal operation of any vehicle licensed under this program must be reported to the NHRA Technical Services Department within 48 hours. Failure to do so may result in suspension of license and/or other penalties, as NHRA deems appropriate.

## **MODERN FUEL ALTERED**

Limited to nitromethane fueled altered roadsters that are showcased in 1000-foot solo runs. Requirements and specifications for Modern Fuel Altered are the same as those for Funny car – Section 18 of the NHRA Rulebook - with the following exceptions:

### **REQUIREMENTS & SPECIFICATIONS**

#### **ENGINE: 1**

##### **INTAKE MANIFOLD**

When using AJPE Stage III 25A-103 or AJPE Stage 25A- 110 manifolds, the rear facing 10.75-inch round openings must be blocked off.

#### **FRAME: 4**

##### **BODY MOUNT TREE**

Not Applicable

##### **TOW-STRAP HOOPS**

All cars must have tow-strap hoops on the lower front of the chassis. Hoops must be capable of accepting a 2-inch tow hook. Hoops must line up with the centerline of the car.

#### **BODY: 7**

##### **AIRFOILS, WINGS, SPOILERS**

Rear wing mandatory. Rear wing must be a maximum 850 square inches. Front spoilers, wings or canards permitted. Maximum square area for front spoilers is 440 square inches. The maximum front frame overhang is 6 inches.

## Exhibition Vehicle Rulebook Supplement

### **BODY**

Limited to 1949 and earlier open cockpit coupes or roadsters. Bodies must resemble the original mass-produced make and model. All bodies must be painted and lettered. Grill shell or grill shell tank design matching the paint design is mandatory.

### **BODY SPECIFICATION**

Not applicable

### **BODY BURST PANEL**

Not applicable

### **BODY, FASTENERS AND STIFFENERS**

Not applicable

### **BODY, FRONT LATCH AND TETHERING SYSTEM**

Not applicable

### **BODY, REAR-RELEASE MECHANISM**

Not applicable

### **ESCAPE HATCH**

Not applicable

### **GRILLE**

Not applicable

### **REAR BUMPER**

Not applicable

### **WINDSHIELD, WINDSCREEN**

Mandatory. The windscreen or deflector must be designed to 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. The windscreen/deflector should be as high as the top of the roll hoop. See General Regulations 7:7.

## **LEGEND CARS**

### **DESIGNATION**

LC, preceded by competition number.

All Legend Cars must be manufactured by U.S. Legend Cars International (formerly 600 Racing Inc.) as "Stock" or "Original Equipment Manufacturer/OEM" or "Aftermarket" produced by INEX-approved manufacturer other than Original Equipment Manufacturer.

## Exhibition Vehicle Rulebook Supplement

Refer to U.S. Legend Cars International, 5245 NC Highway 49 South, Harrisburg, NC 28025.

The minimum car weight is 1,100 pounds. The minimum weight of the car with the driver is 1,300 pounds.

Any competitor running quicker than 12.50 e.t. in the quarter-mile or 7.99 e.t. in the eighth-mile or faster than 110 mph at any time will be disqualified from the event.

See additional rule requirements at the end of the Legend Cars section for the state of New Jersey.

Competition structure will be conducted in an E.T. dial-your-own format. Competition permitted with E.T. Motorcycles, E.T. Snowmobiles, All-Terrain Vehicles, or Legend Cars only. Competition with standard full-sized closed- or open-bodied vehicles, Jr. Dragsters, or Jr. Comp Dragsters is prohibited.

# REQUIREMENTS & SPECIFICATIONS

## ENGINE: 1

### ENGINE SERIAL NUMBERS

The engine must remain a factory-stock Yamaha FJ1200/XJR1200 or a sealed Yamaha XJR1250 as currently delivered through 600 Racing Inc. A Yamaha FJ1200/XJR1200 from other countries (Canada, England, etc.) or an FJ1100 may only be used if it meets all the specifications of the U.S. model as delivered through 600 Racing Inc.

### EXHAUST SYSTEM

The header and gasket must remain within the stock dimensions. Only INEX-approved S&S or Borla mufflers are MANDATORY. Mufflers must remain stock and may not be internally modified in any way (turning tip away from car is permitted).

### CARBURETORS

The carburetors and components of the carburetors must remain as stock Yamaha.

### OIL CATCH CANS

An oil catch can (maximum 1-quart capacity) may be used.

### OIL COOLERS & LINE

Oil coolers must be cooled by air only. Aftermarket oil coolers are permitted.

### FUEL

Only petroleum-based unleaded or leaded gasoline.

### FUEL CELL

Approved fuel cells (plastic or metal) must be stock as delivered by 600 Racing.

### FUEL FILTER

Aftermarket fuel filters may be used. No glass fuel filters will be permitted.

### FUEL LINES

Fuel lines may not be located in or run through the driver's compartment of the frame. Steel-braided fuel lines are mandatory.

### FUEL SHUTOFF VALVE OR FUEL REGULATOR

Aftermarket fuel shutoff valves and fuel regulators are permitted.

## **DRIVETRAIN: 2**

### **CLUTCH**

The clutch (plates and springs) may be replaced with any aftermarket type of the same design (no aluminum clutch plates).

### **TRANSMISSIONS**

The transmission and transmission gears must remain stock Yamaha FJ1200/XJR1200/XJR1250 (sealed) as delivered by 600 Racing Inc.

### **REAR AXLES**

The long and the short rear axles must remain stock. If one-piece axles are used, they must be stamped INEX and be as delivered by 600 Racing Inc.

### **REAR ENDS**

Only 10-bolt pattern/wide flange (5/8-inch) Toyota, locked- steel rear ends are permitted.

### **DRIVESHAFT**

The driveshaft, flanges, and U-joints must remain within the stock dimensions, steel thickness, location, and configurations as currently delivered by 600 Racing Inc.

### **DRIVESHAFT RETAINERS**

An INEX-approved driveshaft retainer strap is permitted. A maximum of three (3) retainers of 1/4-inch thickness and 3/4-inch width are permitted.

## **BRAKES AND SUSPENSION: 3**

### **BRAKES**

Any of the brake parts that are attached to the rear end or the spindles must remain stock, within the stock dimensions, steel thickness, location, and configurations as currently delivered by 600 Racing Inc.

### **BRAKE ROTORS**

Only steel rotors (not drilled or reduced in diameter) are permitted on the front. The minimum permitted thickness of the brake rotor is 8mm wide.

### **BRAKE DRUMS**

Only steel drums (not drilled or lightened) are permitted on the rear.

### **BRAKE & CLUTCH LINES**

Rubber, hard-line or steel-braided brake and clutch lines are permitted.

### **STEERING WHEELS**

Larger or smaller steel steering wheels are allowed, aluminum steering wheels are allowed. Racing-style, quick-release steering hubs are mandatory.

### **RACK & PINION STEERING**

Only the rack and pinion steering box as currently delivered and stamped 600 Racing Inc. (or Mid-State Machine) is permitted.

## **FRAME: 4**

### **FRAME**

Absolutely no modifications of the frame (including roll cage) will be permitted. All frames must have 600 Racing Inc. ID plate secured on the frame, inside left main framerail.

### **ROLL BAR PADDING**

Roll bar padding SFI 45.1 on all bars within 12 inches of driver's helmet is required.

### **FIREWALL**

## Exhibition Vehicle Rulebook Supplement

A metal firewall is mandatory. Firewall must be installed as currently delivered by 600 Racing. Using a "thicker than stock" metal firewall is permitted.

### **WHEELBASE**

All cars must compete with OEM wheelbase.

## **TIRES & WHEELS: 5**

### **TIRES**

The tire must be a Legends Edition 205/60R13 BFGoodrich T/A Comp HR4. Tire may not be soaked, softened, siped (razor cuts), grooved, or recapped. The raised white letters of the BFGoodrich Tires logo must face toward the outside of the car and be visible at all times.

### **WHEELS**

Any type of automotive steel wheel (no bead lock) as delivered by 600 Racing that has a 13-inch diameter and a 7-inch width and the offset of 3 inches to 3 1/4 inches from back rim edge to back of wheel center is permitted. The minimum weight of a tire and wheel must be at least 36.0 pounds without additional weights. All wheel weights must be covered with duct tape. Bleeder or relief valves are not permitted in the wheels.

## **INTERIOR: 6**

### **SEATS**

Only INEX-approved factory-manufactured metal seats may be used.

## **BODY: 7**

### **AERODYNAMICS**

Spoilers, air dams, or other aerodynamic devices are not permitted.

### **FIBERGLASS COMPONENTS**

All fiberglass components must remain within the stock dimensions, thickness, location, and configurations as currently delivered by 600 Racing Inc.

### **HOOD**

Hood louvers are permitted. Replacing the self-locking fasteners on the hood with pins permitted.

### **SHEET METAL**

The minimum thickness of sheet metal is .036-inch. The rear-deck sheet metal (including the package tray behind the driver) may not be removed or altered in any way unless a fuel-cell access hole is used. The fuel-cell access hole must be covered with a sheet-metal plate and secured at all times when the car is on the track.

### **WINDSHIELDS/SCREENS**

All cars must have either a screen or Lexan windshield.

## **ELECTRICAL: 8**

### **BATTERY**

The battery must remain in its stock location and securely mounted. A battery shutoff switch is mandatory.

### **DELAY BOX/DEVICE**



## Exhibition Vehicle Rulebook Supplement

Prohibited. The use of throttle stops, delay devices, timed vehicle-control devices (counters, time displays, etc.) is prohibited. Data recorders prohibited.

### **IGNITION SYSTEM**

The complete ignition/engine control system must be the original OEM parts for the Yamaha FJ1200/XJR1200/XJR1250. Electronic throttle (traction) controls are not permitted. In-line fuses only are permitted (no fuse blocks are permitted). Ignition pickup coil wires must run directly to the ignition box and may not be taped or tie-wrapped to other wires. No open wires or unused connectors allowed within reach of the driver.

Ignition Control Box: The stock FJ1200/XJR1200/XJR1250 ignition control box (black box) and the red ignition box (marked INEX-Approved and delivered by 600 Racing Inc.) are the only boxes permitted to be used, and they may not be altered or relocated in any way. Only one ignition box is permitted on a car (multiple boxes are illegal). The original stock FJ1200/XJR1200/XJR1250 rev-limiting system must be in proper working condition and may not exceed 10,500 rpm.

## **SUPPORT GROUP: 9**

### **FIRE EXTINGUISHERS**

Onboard fire extinguisher required.

## **DRIVER: 10**

### **CREDENTIALS**

Valid state, government-issued driver's license beyond a learner's-permit level, or NHRA competition licenses mandatory. Drivers must be at least 16 years of age. See General Regulations 10:4.

### **HELMET**

Full-face Snell: SA2015, SA2020, FIA: 8860-2010, 8860-2015 or 8860-2018 helmet mandatory.

### **FIRE-RETARDANT GLOVES**

Fire-retardant gloves are mandatory. Gloves must have SFI 3.3/1.

### **FIRESUIT**

All drivers must wear a fire-retardant suit or jacket and pant with SFI 3.2A/5.

### **SAFETY HARNESS**

Driver restraint system meeting SFI Spec 16.1 mandatory. Must be updated at two-year intervals from date of manufacture.

### **RACING SHOES**

Drivers must wear shoes SFI 3.3/1.

### **NECK RESTRAINT SYSTEM**

Neck collar meeting SFI Spec 3.3 mandatory. An SFI-approved head and neck restraint device/system is permitted. 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

## Exhibition Vehicle Rulebook Supplement

can be used with or without, a neck collar; when a neck collar is not used, an SFI 3.3 head sock or SFI Spec. 3.3 skirted helmet is required.

### **NEW JERSEY STATE REQUIREMENTS**

The following modifications to a Legend Car are required to race in New Jersey:

- 1.) Steel plates welded onto existing passenger-side door.
- 2.) Nomex boot attached to seat back covering the existing safety harness hole.
- 3.) Fuel shutoff switch must be located on the top horizontal shelf behind driver's right shoulder on flat sheet metal. Switch must be clearly marked with red tape, ON - OFF.
- 4.) Plastic battery box.
- 5.) Pad on steering wheel.
- 6.) Remove threaded rods on existing fuel-cell bars and replace with 5/16-inch bolts through fuel-cell bar. Bushings must be installed in holes drilled for new bolts passing through fuel-cell bars.
- 7.) Add to the door strike plates with 3/16-inch-thick, 1 1/2- inch x 1 1/2-inch angle iron that is 5 inches in length. Weld the angle iron on each door strike plate so that the angle iron prevents the door from closing in toward the driver.

## **Ford Performance Super Cobra Jet 1800 Exhibition** **Vehicle SCJ1800**

### **REQUIREMENTS & SPECIFICATIONS**

#### **MOTOR: 1**

##### **MOTOR**

Electric motor(s) only permitted.

Location: In unmodified conversion vehicles, the Electric motor(s) must be in the original engine compartment in a similar location as the original gasoline engine or fixed mounted to chassis of vehicle at axle location as part of gearbox/transaxle/differential. In modified drag race vehicles, the motor can be in a purpose-built vehicle engine compartment.

Height: If multiple motors are used, they may be stacked horizontally up to two parallel (horizontal) stacks high. Maximum height of single motor/shaft output centerline must be under 24 inches off ground, maximum height of multiple motor/shaft output centerline must be under 36 inches off ground; or 1) within the OEM engine compartment factory hood for full bodied cars or 2) within purpose-built vehicle engine compartment, hood must be stock size with no scoop, bubbles or cowl

Gearbox may use gears, chains or belts. Gearbox's that use chain or belt must have a chain guard constructed with minimum .125-inch steel or .250-inch aluminum covering

## Exhibition Vehicle Rulebook Supplement

width and top run of chain/belt to centerline of sprockets. Gearbox's that use meshing gear sets must be completely enclosed; no open gearbox allowed.

Wheel mounted motors prohibited.

### **FUEL SYSTEM**

All conversion vehicles must remove fuel tanks and fuel system, including vapor storage equipment, from vehicle.

### **LIQUID OVERFLOW**

If a radiator is utilized for cooling systems, a one-pint (16-ounce) minimum capacity catch can is required.

## **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, or 6.3 mandatory on all cars running 11.49 (\*7.35) or quicker. A motor plate, minimum 1/4-inch steel or 1/2-inch aluminum may be used to adapt traction motor to conventional transmission.

### **DRIVELINE**

Driveline loop mandatory on any non-OEM vehicle running 16.00 seconds or quicker. Driveline 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. See General Regulations 2:4, 2:11.

### **REAR END**

Chain-drive vehicles must be equipped with a chain guard constructed with minimum .125-inch steel or .250-inch aluminum, covering width and top run of chain to centerline of sprockets. Aftermarket axles and axle-retention device mandatory on any car running 10.99 (\*6.99) or quicker or any car with locked differential. Cars running 10.99 (\*6.99) or quicker that weigh more than 2,000 pounds with independent rear suspension without upper and lower (both) control arms must replace swing axle differential with conventional differential housing assembly. (Example: 1963-1982 Corvette). Cars with independent rear suspension using upper and lower (both) control arms may retain swing axle assembly regardless of weight or e.t. Must have 360-degree, minimum 1-inch-wide by 1/4-inch-thick axle retention loop on each axle. See General Regulations 2:11.

## **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 dragsters, Funny Cars, and any car running slower than 8.00 (\*5.00) seconds. Dragsters running slower than 10.99 (\*6.99) with a total car weight of 1,000 pounds or

## Exhibition Vehicle Rulebook Supplement

less and a one-piece rear axle may use a single brake rotor with dual calipers. See General Regulations 3:1.

### **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. See General Regulations 4:5.

### **PARACHUTE**

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

### **ROLL CAGE**

A roll cage is 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 or quicker or exceeding 135 mph, roll cage mandatory. See General Regulations 4:4, 4:11, 10:6. Must meet SFI Requirements if applicable.

### **ROLL-CAGE PADDING**

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.

## **TIRES & WHEELS: 5**

### **TIRES**

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

### **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. Automotive-type wire wheels or motorcycle wheels permitted on front axle only of dragsters weighing 1,800 pounds or less. 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.

### **INTERIOR PANELS**

Driver-compartment interior must be aluminum, steel, fire resistant carbon fiber, or fiberglass. Magnesium prohibited.

### **UPHOLSTERY**

Optional. See General Regulations 6:2.

### **WINDOW NET**

A ribbon-type or SFI 27.1 mesh-type window net is mandatory for any full-bodied car running 7.50 (\*4.50) to 9.99 (\*6.39) or if vehicle runs 135 mph or faster. See General Regulations 6:3.

## **BODY: 7**

### **AIRFOIL**

**Bodied vehicles:** Non-OEM airfoils permitted, must be permanently attached to frame or roll cage, non-adjustable during run. See General Regulations 7:1.

## Exhibition Vehicle Rulebook Supplement

### **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.

**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**

On full-body vehicles a firewall completely separating and sealing the driver from ANY battery pack with a minimum .032-inch aluminum or .024-inch steel. This includes the 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. All battery packs located behind the driver or inside trunk also require a complete bulkhead of at least .024-inch steel or .032-inch aluminum to isolate driver compartment from trunk. All holes in firewall must be sealed with aluminum or steel. Use of magnesium prohibited.

All electrical system components (battery packs, converters, inverters, battery charger, Battery Management System, Electric Power Control Unit, or any other electrical components) must be installed no closer than 2 inches from the firewalls that separate the drivers compartment from these components.

### **FLOOR**

Mandatory. See General Regulations 6:1, 7:5. If battery is located below the floor, the floor must be made of at least .024-inch steel or thicker.

### **HOOD**

Optional.

### **TOW-STRAP HOOPS**

All cars must have permanently attached tow-strap hoops on the lower front of the chassis. Hoops must be capable of accepting a 2-inch tow hook without lifting the body or stressing the body when the car is being towed. Hoops must be clearly marked on the body with an arrow pointing down.

### **WINDSHIELD, WINDOWS**

**Full-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, 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**

**A list of all electrical components along with their specification information utilized in the build of car must be kept and available to a tech inspector upon request. This documentation must contain documentation from the battery cell/pack producer specifying safety relevant data. A contingency plan must also be provided describing how to handle the battery pack in the case of overheating and/or crash.**

### **HIGH VOLTAGE:**

EV systems will fall into one of two categories up to 600V or 601V – 1000V max. All vehicles must utilize components rated above the maximum pack voltage.

### **CABLING**

- All areas of the driver's compartment must be free of any high voltage wiring to provide safety personnel a safe area to cut around driver in the event of an accident.
- All cabling between motor inverter and battery and charger should be only what is needed and not have excessive coiled up cables.
- All high voltage cabling must be identified with the color orange.
- All electrical cables must be rated for the respective volt class and circuit current.
- All high voltage wiring must be isolated from vehicle chassis.
- Cabling must remain above lowest portion of vehicle frame and be protected from debris by a tin/steel/carbon enclosed channel orange in color.
- Dragsters may not have high voltage components running through the driver's compartment.
- Electrical cables and electrical equipment must be protected against any risk of damage (stones, corrosion, mechanical failure, etc.).

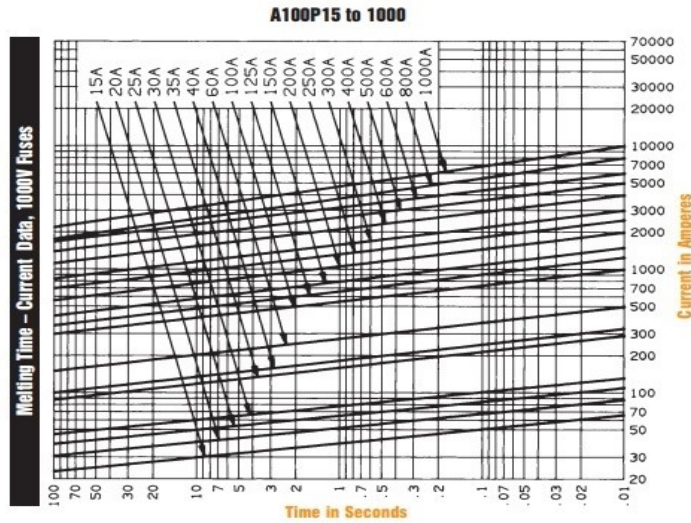
### **CABLE TERMINATIONS and TERMINALS**

All cable terminations and splices must be properly terminated and covered with insulation at least equal to that of the cable insulation to protect against accidental contact.

### **FUSING**

Each battery pack must be individually fused and located on or in the battery pack. Fuses must not be in parallel. Fuses must be properly rated for application. There must be a fuse between the disconnect and the battery cells.

**SEMICONDUCTOR PROTECTION FUSES**



Example: 800V system requires a 1000V “A100”-style fuse, if it’s a 10 second application of battery power at 1000amps, you require approximately a 300Amp battery fuse.

**CONTACTORS**

Pre-charge contactor and Main contactors must be used. For 601 to 1000-volt vehicles an emergency, properly rated, main negative voltage contactor required. Contactors must not be placed in parallel. Each individual contactor must be independently fused.

**HIGH VOLTAGE IDENTIFICATION**

All high voltage components or their housings must be identified with the international symbol for high voltage, at least 1.5” wide at base or appropriately sized for the component. Cabling or bus bars must be covered in appropriately insulated orange insulation to indicate high voltage without a sticker.



**ONBOARD BATTERY MANAGEMENT SYSTEM (BMS) MANDATORY**

BMS is a battery management system that is connected to the battery cells and provides automatic charging and discharging control to maintain the battery system within the battery manufactures specifications. The onboard BMS system must at a minimum be capable of enabling and disabling charging based on the battery manufacturers specifications while monitoring the individual or parallel cell groups and battery temperatures in both charge and discharge modes. It must also have the capability of derating or disabling vehicle based on pack voltage limit by either BMS and/or controller. If BMS has a built in Insulation Monitoring Device (IMD), it may be utilized in place of a standalone system. The BMS must also have the proper pack and cell high/low voltages settings programmed per the battery manufacturer’s specifications.



## **BATTERY**

The Battery may be comprised of one or more Battery Packs connected together with suitably protected cables/connectors/fuses between the packs. A battery pack may be comprised of multiple Battery Cells connected in series and parallel to form the total battery voltage and amperage required. The total battery voltage of all series cells will fall into two categories, 600V and below or 601V to 1000V.

Battery cells must be starved electrolyte having little to no free liquids in them whether they are Lead/Acid, Lithium Ion, or NiCad. No solid lithium metal battery cells permitted. The battery cell manufacturers maximum charged voltage and minimum sag voltage ratings must be kept in the vehicle log book for reference. Mounting: Battery packs must be securely mounted outside of or completely sealed from the driver compartment. Each battery pack must be secured with bolts and/or straps commensurate with the size and weight of the pack and must be installed so as to withstand a force four times (vertical) and eight times (horizontal) the weight of the battery pack. (Contact NHRA for requirements) Battery packs may not be located above the top of rear or drive tires in open wheeled cars, nor outside body lines in bodied car, except for OEM-production-line electric-powered vehicles.

## **BATTERY CONTAINER DIMENSIONS**

- Original OEM Battery packs/boxes may be used if unaltered and utilizing original OEM battery pack/box components
- Purpose build battery box(es) dimensions if in passenger seat area must be built in such a way to allow driver clearance to exit the vehicle through the passenger door.

## **All vehicles (with exception of dragsters and Opened Bodied Vehicles)**

- All battery cells must be completely sealed and isolated from the drivers compartment in a solid vented battery container.
- Battery container construction requirements
  - Must be made of Lexan (min .120") or; aluminum (min .032") or; steel (.024-inch) with a nonmetallic insulation lining or be NHRA accepted.
  - Water Access
    - The sealed box must contain a water inlet located on the top of the battery pack Each water inlet and the water outlet must utilize the Pyrotech billet flapper valve part number FV350 (<https://www.pyroprotectstore.com>) or an NHRA Accepted valve.
- Ventilation
  - All battery packs must have a vent line attached to the top of the battery pack and vented to the bottom and outside of the vehicle away from the drivers compartment and rescue access.
    - All sealed boxes must be vented to the bottom or rear of the vehicle, must not be vented to either the driver or passenger side of the vehicle.
    - Ventilation tube must be a minimum of 2" diameter.
    - Vent must contain a one-way pressure relief valve or flap.

## **BATTERY CHARGING**

Batteries may be recharged in pits or other designated areas only. Batteries must be charged utilizing either the original unaltered OEM Charger, or an unaltered commercially available charging system, that will watch individual cell levels and have

## Exhibition Vehicle Rulebook Supplement

redundant ways to shut off the charging system in case of an overcharged condition. All battery chargers must be equipped with an output fuse rated above the maximum charger voltage capability and at least 125 percent of maximum charger DC output. Charging systems must connect earth ground potential to vehicle ground. The BMS system must be utilized during all system charging events. Cars should not be stored for extended periods of time at top of charge.

### **INVERTER**

All inverters must be individually fused. All inverters must have CAN/RS232 or analog communication capabilities. Must have capability to receive feedback from Battery Management System (BMS) and/or an Insulation Monitoring Device (IMD) to turn system off in the event of a fault. Must be isolated from the driver's compartment.

### **IMD**

An IMD (Insulation Monitoring Device) is mandatory. The IMD monitors the chassis for high voltage shorting. The IMD may be stand alone or part of the electronic subsystem. The IMD must be capable of commanding, either directly or indirectly through the Vehicle Control Unit (VCU) or other computer systems, the vehicle status lights to turn red if high voltage is present on the chassis. The IMD must stay powered even when the Master Battery Disconnect is deactivated (pushed off) to alert track officials of a potential high voltage short on the vehicle. It is the responsibility of the owner/driver to understand the IMD system and have the means to test and demonstrate its functionality upon request.

### **LOW VOLTAGE (12V):**

High voltage system must be disabled in the event of loss of low voltage power. 12V standalone battery must be fused at the battery.

### **HIGH VOLTAGE SAFETY INDICATOR LIGHTS and AUDIBLE ALARM:**

Mandatory – all cars must have an LED light visible from front, rear, left, right and to the driver on interior of the vehicle. The lights must illuminate GREEN in color if high voltage is active and all systems are functioning properly (SAFE). The LED lights must illuminate RED in color if the IMD or any other monitoring system has triggered a fault (DANGER). Safety Indicator lights must remain illuminated after 12V Master Battery Disconnect has been pushed off. A minimum of 1/2" LED required. LED lighting must be clearly visible at a minimum of 100 feet from vehicle in direct sunlight. Vehicles must also be equipped with an audible alarm, similar to an automobile back-up alarm with a minimum of 90 decibels. The audible alarm must be activated when the LED is illuminated RED and the systems has triggered a fault (DANGER).

### **DELAY BOX/DEVICE**

Permitted in Super Pro only. See General Regulations 8:2.

### **INSTRUMENTS**

Permitted

### **MASTER BATTERY DISCONNECT**

Mandatory on all cars, the push off mechanism of the master cutoff switch, must be installed on the rearmost part of each vehicle and be easily accessible from outside the

## Exhibition Vehicle Rulebook Supplement

car body. The push off mechanism of the master cutoff switch must be placed in such a manner as to give a safety personnel an unobstructed view of the mechanism from the rear of the vehicle. The push off master cutoff switch / mechanism must be RED in color and have a minimum 4" contrasting background color centered around it. The off position must be clearly indicated with the word "OFF." For "push/pull" type switch, "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. Keyed switches prohibited. Any activation of the fire suppression system must also activate the master cutoff switch. When the master battery disconnect is enabled vehicle must be equipped with a circuit breaker of sufficient capacity to disable all high voltage systems. When master battery disconnect is enabled all system contacts must be opened and the high voltage removed. The low voltage system must, at a minimum, continue to illuminate the high voltage safety indicator lights, audio alarm, VCU and IMD.

### **TAILLIGHTS**

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

## **SUPPORT GROUP: 9**

### **DATA RECORDER**

Data recorders are permitted.

### **FIRE-EXTINGUISHER SYSTEM**

Mandatory –ABC type extinguisher require, must be securely mounted. See General Regulations 9:3.

### **WARM-UPS**

See General Regulations 9:5, 9:14.

## **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. 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, and all dune-buggy-type vehicles running 12.00 (\*7.50) or slower. 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.

## Exhibition Vehicle Rulebook Supplement

### **HELMET**

For all 9.99 and quicker closed-bodied cars, a full-face Snell: M2015, M2020, SA2015, SA2020, FIA: 8860-2010, 8860-2015 or 8860-2018 helmet mandatory; shield permitted (goggles prohibited). For all 9.99 and quicker open-bodied front-motor or rear-motor cars, a full-face Snell: SA2015, SA2020, FIA: 8860-2010, 8860-2015 or 8860-2018 helmet and shield mandatory (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.

If SFI Spec 3.3 neck collar is required and driver opts to use head and neck restraint system instead, then SFI Spec 3.3 head sock or SFI Spec 3.3 skirted helmet mandatory.

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

### **PROTECTIVE EQUIPMENT**

Driver's suit meeting SFI Spec 3.2A/20, long sleeve underwear shirt meeting SFI 3.3, long underwear pants meeting SFI 3.3, SFI Spec 3.3/20 gloves, glove under-liners made of flame-retardant material, SFI Spec 3.3/20 boots, socks meeting SFI 3.3, SFI Spec 3.3 head sock, and SFI Spec 3.3/10 helmet skirt mandatory. A shoe meeting SFI Spec 3.3/20 constructed such that the flame-retardant material is at least six inches above the heel may be used in lieu of a 3.3/20 boot. All jacket/pants or suits meeting SFI Spec 3.2A/20 must be recertified on a five-year interval. All clothing containing metal or plastic prohibited. Undergarments that are worn in addition to those mandated that are made of flammable materials (e.g. nylon, rayon, polyester, spandex etc.) are prohibited. All jewelry prohibited. See General Regulations 10:10.