



## **SECTION 4 NHRA SUMMIT RACING JR. DRAG RACING LEAGUE**

**Please see the 2026 NHRA Rulebook  
for the complete set of rules.**

### **RELEASE AND WAIVER OF LIABILITY, ASSUMPTION OF RISK AND INDEMNITY AGREEMENT**

All participants shall be required as a condition of participation to sign all required entry forms, including but not limited to such releases as shall be required by NHRA and/or its insurers, consisting of the following or similar wording. Whether or not the participant or the participant's parent(s)/guardian(s) signs such releases, the participant and the participant's parent(s)/guardian(s) agrees to the terms set forth below and participant and the participant's parent(s)/guardian(s) is hereby put on notice of such terms and makes such agreement either by receiving this Rulebook or by participating in the sport, or both.

The current Jr. waiver is in two parts and both parents are required to sign. Signatures need to be notarized.

#### **IMPORTANT NOTICE**

**THIS AGREEMENT SHALL APPLY TO ANY AND ALL NHRA AND NHRA MEMBER TRACK EVENTS OR ACTIVITIES ("EVENTS")**

**PARENT/GUARDIAN RELEASE AND WAIVER OF LIABILITY  
ASSUMPTION OF RISK AND INDEMNITY AGREEMENT FOR  
PERSONS UNDER AGE 18**

IN CONSIDERATION of ALLOWING MY BELOW-NAMED MINOR CHILD ("the minor") to compete, officiate, observe, work for, or participate in any way in the EVENT(S) or being permitted to enter for any purpose any RESTRICTED AREA (defined as the advanced staging area, burn out area, competition area, shutdown area, staging lanes, return road area, and any other area within the barriers, fences, and/or structures separating the general public from racing activities), I, THE UNDERSIGNED, on behalf of the minor child, for myself individually and for my children, wards, personal representatives, heirs, and next of kin:

1. Represent and agree that I know the nature of the EVENT(S) and the minor's experience and capabilities, and I affirm that the minor is fit and qualified to participate in the EVENT(S).
2. Agree and represent that I and the minor have or will immediately upon entering any such RESTRICTED AREAS, and will continuously

thereafter, inspect the RESTRICTED AREAS and further agree and warrant that, if at any time, we are in or about RESTRICTED AREAS and believe anything of any nature to be unsafe or unsatisfactory in any way, we will immediately advise the officials of such and will leave the RESTRICTED AREAS and/or refuse to participate further in the EVENT(S).

3. HEREBY RELEASE, WAIVE, DISCHARGE AND COVENANT NOT TO SUE the promoters, participants, racing associations, sanctioning organizations or any affiliated entities thereof, track operators, track owners, officials, vehicle owners, builders and designers, drivers, crews, rescue personnel, and persons in any RESTRICTED AREA, promoters, sponsors, equipment and parts manufacturers and suppliers, advertisers, owners and lessees of premises used to conduct the EVENT(S), premises and event inspectors, surveyors, underwriters/brokers, consultants and others who give recommendations, directions, or instructions or engage in risk evaluation or loss control activities, regarding the premises or EVENT(S) and for each of them, their directors, officers, agents, and employees, (the "RELEASEES") FROM ALL LIABILITY TO ME, to the minor, and to my children, wards, personal representatives, assigns, heirs, and next of kin, FOR ANY AND ALL LOSS OR DAMAGE, AND ANY CLAIM OR DEMAND THEREFORE ON ACCOUNT OF INJURY TO PERSON OR PROPERTY OR RESULTING IN DEATH ARISING OUT OF OR RELATED TO THE EVENT(S), WHETHER CAUSED BY NEGLIGENCE OF ANY RELEASEE(S) OR OTHERWISE.

4. HEREBY AGREE that if, despite signing this Agreement, I, the minor, or anyone on the minor's behalf, makes a claim for loss or damage against any of the Releasees, I AGREE TO INDEMNIFY AND SAVE AND HOLD HARMLESS the RELEASEES and each of them FROM ANY LOSS, LIABILITY, DAMAGE, FEES OR COSTS they may incur arising out of or related IN ANY MANNER TO MY OR THE MINOR'S ATTENDANCE AT OR PARTICIPATION IN THE EVENT(S), AND WHETHER CAUSED BY THE NEGLIGENCE OF ANY RELEASEE(S) OR OTHERWISE.

5. HEREBY acknowledge and agree that THE EVENT(S) ARE DANGEROUS and involve the risk of serious injury, death and/ or property damage. I also expressly acknowledge that INJURIES RECEIVED MAY BE COMPOUNDED OR INCREASED BY NEGLIGENT RESCUE OPERATIONS OR PROCEDURES OF THE RELEASEES.

6. HEREBY ASSUME FULL RESPONSIBILITY FOR ANY RISK OF BODILY INJURY, DEATH OR PROPERTY DAMAGE arising out of or related to the EVENT(S) whether caused by the NEGLIGENCE OF ANY RELEASEE(S) OR OTHERWISE.

7. HEREBY agree that this Parent/Guardian Release and Waiver of Liability, Assumption of Risk and Indemnity Agreement for Persons Under 18 ("Agreement") extends to ALL acts of negligence by the RELEASEES, INCLUDING NEGLIGENT RESCUE OPERATIONS and is intended to be as broad and inclusive as is permitted by the laws of the State or Province in which the EVENT(S) is/are conducted and that if any portion thereof is held invalid, I agree that the balance shall, notwithstanding, continue in full legal force and effect.

I HAVE READ THIS AGREEMENT, FULLY UNDERSTAND ITS TERMS, UNDERSTAND THAT I HAVE GIVEN UP SUBSTANTIAL RIGHTS FOR MYSELF AND FOR OTHERS BY SIGNING IT, AND HAVE SIGNED IT FREELY AND VOLUNTARILY WITHOUT ANY INDUCEMENT, ASSURANCE OR GUARANTEE BEING MADE TO ME AND INTEND MY SIGNATURE FOR THIS TO BE A COMPLETE AND UNCONDITIONAL RELEASE OF ALL LIABILITY TO THE GREATEST EXTENT ALLOWED BY LAW.

[SIGNATURES OF BOTH PARENTS]  
[NOTARIAL BLOCK]

JD

**MINOR'S PARTICIPATION AND ASSUMPTION OF RISK STATEMENT****ALL EVENTS ALL DATES**

I have my parent's permission to participate in this event. "Participate" includes driving, working on cars, helping in some way, being in the "restricted area", or watching the event. I understand that the "restricted area" is a place I need special permission to be in, such as the race track itself and the area close to it. If I don't know if an area is restricted or not, I will ask an event official. I understand that I am assuming the risks of getting hurt during the event, and by signing my name below I state the following:

1. My parents (or guardians) and I believe I am qualified and fit to participate in the event. I will carefully look at the place where this event is being held, and the equipment at this place, and if, at any time, I think ANYTHING is unsafe, I will leave right away and refuse to participate further in the event.

2. I understand that the ACTIVITIES OF THE EVENT ARE DANGEROUS and by participating in the event, there is the RISK AND DANGER that I could be BADLY HURT, PARALYZED OR KILLED. I understand that these risks and dangers can be unexpected. Even though I could get seriously injured or killed in this event, I still want to participate.

3. I know that these risks and dangers may be caused by what I do or fail to do, by the actions or inactions of people participating in the event, by the rules of the event, by the condition and layout of the event location and equipment, and/or by the NEGLIGENCE OR CARELESSNESS of others, including the people responsible for putting on the event.

4. I ASSUME ALL THESE RISKS, EVEN IF THE RISKS ARE CAUSED BY THE NEGLIGENCE OR CARELESSNESS of the promoters, participants, racing associations, sanctioning organizations, or any of its subdivisions, track operators, track owners, equipment and parts manufacturers and suppliers, officials, car owners, builders and designers, drivers, pit crews, rescue personnel, any persons in any restricted areas, sponsors, equipment and parts manufacturers and suppliers, advertisers, owners, and lessees of premises used to hold the events, premises or event inspectors, surveyors, underwriters, consultants, and any other person or entity who gives recommendations, directions, or instructions, or engages in risk evaluation, loss control activities or sales regarding the premises or events, and each of them, their directors, officers, agents, and employees.

I have read this Statement, I understand it, I have discussed it with my parents (or guardians), I have their permission to sign it, and I agree to make this my own truthful Statement.

[PARTICIPANT'S SIGNATURE]

[SIGNATURE OF PARENT/GUARDIAN]

## **Jr. Dragster Rules and Regulations**

The NHRA Summit Racing Jr. Drag Racing League is a multifaceted program designed to afford youth as young as 5 years old the opportunity to drive in the League and those 6 and older the opportunity to race against their peers in near replicas of the models that the Pros drive. NHRA Jr. drag racing is restricted to competition in half-scale sized dragsters and NHRA accepted roadsters over a maximum distance of an eighth mile. Competition is designed to be conducted on an e.t. dial-your-own format or a preset index on a heads-up breakout basis. Actual class or age-group breaks may vary from track

to track. Contact your local track to see if it participates in the program and if so, for information on class structure. Each track, in its discretion, may set its own age requirements for participation (for example, a track may allow only those 8 and older to participate).

**Consistent with its endeavor to maintain simplicity and cost controls of the NHRA Summit Racing Jr. Drag Racing League, NHRA will continue to monitor elapsed times and speeds and may in time implement additional e.t. and speed limits.**

## CLASS DESIGNATIONS

**AGE REQUIREMENTS:** Drivers may enter the NHRA Summit Racing Jr. Drag Racing League on the day of their 5th birthday in the noncompetitive Trainee category. Drivers may compete in the Jr. Drag Racing League from the day of their 6th birthday through the year of their 18th birthday (December 31 of the year they turn 18). **All Jr. Drag Racing League participants must submit a certified birth certificate on all new participant registration. Subsequent renewals do not require resubmission of certified birth certificate or notarized copy of birth certificate.** Willfully falsifying NHRA membership and/or participation documents for any reason including avoiding age restrictions will be grounds for denial of license, suspension or revocation of license, or other action deemed appropriate by NHRA in NHRA's sole and absolute discretion, including but not limited to exclusion from the NHRA Jr. Drag Racing League Eastern/Western Conference Finals. Driver must be the minimum age for the Age Group class (i.e., to run in the 10-year-old class, the driver must have already celebrated his or her 10th birthday). Likewise, a driver can compete in a lower Age Group class if his or her birthday falls after Jan. 1 of the current year (i.e., a driver who turned 13 on July 1 can compete as a 12-year-old through the entire calendar year).

**TRAINEE:** age 5; elapsed time restricted to 20.00 seconds or slower; no racer can run quicker than 20.000. Limited to noncompetition, single passes. Engine restricted to any OHV engine 212CC or smaller single cylinder with red slide valve (part no. 555733). Aftermarket parts and billet block prohibited. An electric powered motor meeting the rules found in the Electric-Powered Jr. Dragster section of this rulebook is also permitted in lieu of an OHV engine. An NHRA accepted voltage regulator may be required in the future. If the racer runs faster than 20.00 seconds, he or she will be disqualified for the remainder of the event and may face further action deemed appropriate by NHRA in NHRA's sole and absolute discretion.

**YOUTH:** ages 6 and 7; dial-in restricted to 13.90 seconds or slower based on either an e.t. dial-your-own or heads-up basis; breakout rules apply. In qualified events, no racer can qualify quicker than 13.900. Any competitor running quicker than 13.70 e.t. in the eighth-mile or 7.00 e.t. in 330 feet at any time during an event generally will receive one warning unless the race director feels further action would be appropriate. If the same competitor runs quicker than 13.70 e.t. in the eighth-mile or 7.00 e.t. in 330 feet again at the same event, he or she will be disqualified for the remainder of the event and may face further action deemed appropriate by NHRA in NHRA's sole and absolute discretion. Any competitor running quicker than 13.50 e.t. in the eighth-mile or 6.80 e.t. in 330 feet at any time during an event will be immediately disqualified for the remainder of the event and may face further action deemed appropriate by NHRA in NHRA's sole and absolute discretion. Penalties will be

imposed regardless of whether the infraction(s) occur during time trials or eliminations. See also Breakout Rules in Race Procedures. Engine restricted to any OHV engine 212CC or smaller, single cylinder with blue slide valve (part no. 555734). Aftermarket parts and billet block prohibited. An electric powered motor meeting the rules found in the Electric-Powered Jr. Dragster section of this rulebook is also permitted in lieu of an OHV engine. An NHRA accepted voltage regulator may be required in the future.

**NOVICE:** ages 8 and 9; dial-in restricted to 11.90 seconds or slower based on either an e.t. dial-your-own or heads-up basis; breakout rules apply. In qualified events, no racer can qualify quicker than 11.900. Any competitor running quicker than 11.70 e.t. in the eighth-mile or 6.10 e.t. in 330 feet at any time during an event will receive one warning unless the race director feels further action would be appropriate. If the same competitor runs quicker than 11.70 e.t. in the eighth-mile or 6.10 e.t. in 330 feet again at the same event, he or she will be disqualified for the remainder of the event and may face further action deemed appropriate by NHRA in NHRA's sole and absolute discretion. Any competitor running quicker than 11.50 e.t. in the eighth-mile or 5.90 e.t. in 330 feet at any time during an event will be immediately disqualified for the remainder of the event and may face further action deemed appropriate by NHRA in NHRA's sole and absolute discretion. Penalties will be imposed regardless of whether the infraction(s) occur during time trials or eliminations. See also Breakout Rules in Race Procedures.

**INTERMEDIATE:** ages 10 to 12; dial-in restricted to 8.90 seconds or slower based on either an e.t. dial-your-own or heads-up basis; breakout rules apply. In qualified events, no competitor can qualify quicker than 8.900. Any competitor running quicker than 8.70 e.t. in the eighth-mile or 4.70 e.t. in 330 feet at any time during an event will receive one warning unless the race director feels further action would be appropriate. If the same competitor runs quicker than 8.70 e.t. in the eighth-mile or 4.70 e.t. in 330 feet again at the same event, he or she will be disqualified for the remainder of the event and may face further action deemed appropriate by NHRA in NHRA's sole and absolute discretion. Any competitor running quicker than 8.50 e.t. in the eighth-mile or 4.50 e.t. in 330 feet at any time during an event will be immediately disqualified for the remainder of the event and may face further action deemed appropriate by NHRA in NHRA's sole and absolute discretion. Penalties will be imposed regardless of whether the infraction(s) occur during time trials or eliminations. See also Breakout Rules in Race Procedures.

**ADVANCED:** ages 13 to 18; dial-in restricted to 7.90 seconds or slower based on either an e.t. dial-your-own or heads-up basis; breakout rules apply. In qualified events, no competitor can qualify quicker than 7.900. See also Breakout Rules in Race Procedures.

**Any competitor running quicker than 7.50 e.t. in the eighth-mile or 4.10 e.t. in 330 feet or faster than 85.00 mph at any time during eliminations will be disqualified from the event.**

Any competitor running quicker than 7.50 e.t. in the eighth-mile or 4.00 e.t. in 330 feet or faster than 89.99 mph at any time during time trials or qualifying will be disqualified from the event and will be subject to additional disciplinary action in the sole and absolute discretion of NHRA.

**MASTER:** Ages 18 and higher; dial-in restricted to 7.90 seconds or slower based on either an e.t. dial-your-own or heads-up basis; breakout rules apply. In qualified events, no competitor can qualify quicker than 7.900. See also Breakout Rules in Race Procedures.

**Any competitor running quicker than 7.50 e.t. in the eighth-mile or 4.10 e.t. in 330 feet or faster than 85.00 mph at any time during eliminations will be disqualified from the event.**

Any competitor running quicker than 7.50 e.t. in the eighth-mile or 4.00 e.t. in 330 feet or faster than 89.99 mph at any time during time trials or qualifying will be disqualified from the event and will be subject to additional disciplinary action in the sole and absolute discretion of NHRA.

### **CREDENTIALS**

Valid NHRA Jr. Master license required. License requires test runs and witnesses.

## **Requirements and Specifications**

### **ENGINE: 1**

#### **CAMSHAFT**

Any camshaft permitted. Any size valve permitted. Any valve spring permitted.

#### **ENGINE**

Novice, Intermediate, Advance, and Master classes restricted to a maximum of one rear-mounted — based on a five horsepower, single-cylinder, single-spark-plug, flathead-configured, four cycle engine or any OHV engine single cylinder— engine from a recognized OEM or NHRA-accepted aftermarket supplier. NHRA accepted aftermarket block permitted. Must retain original five-horsepower engine block configuration. Porting, polishing, and relieving of block; boring of cylinder; machining of deck surface permitted. Aftermarket head permitted. Adding material to deck surface, installing a spacer between the block and cylinder head, or any other modification designed to increase the effective deck height of the cylinder prohibited.

JR ROADSTER: maximum engine height measured from the ground to top of cylinder head not to exceed 36”.

Accepted aftermarket engines for Novice, Intermediate, Advanced and Master classes: Metro Racing flathead, McGee Racing flathead, Tecumseh flathead, LPW Racing Products monster racing block, JR Race Car flathead, Pure Power Racing flathead, M-1 Machine racing block, SR71 Racing Block by Soltz Racing, Huddleston Performance Billet Magnum OHV engine, Huddleston Performance Sniper, R&S Machine Terminator, TRS block, Kondor Technologies TAZ-351 or an electric powered motor meeting the rules found in the Electric-Powered Jr. Dragster section of this rulebook. All accepted aftermarket flathead engines must not exceed 10 11/16 inches from base to deck. Any measurement that exceeds that limit is prohibited. See Trainee and Youth Class Designations for their engine requirements.

#### **EXHAUST**

Regardless of design, no part of tailpipe may extend more than 27 inches past exhaust attachment point on rear of engine block. Outlet must be directed rearward, away from driver and

engine. Mufflers permitted. Tailpipe support mandatory on Briggs & Stratton 206 crate engine.

## **FUEL**

Restricted to gasoline, alcohol, or gasohol. Nitrous oxide and/or propylene oxide and/or nitromethane prohibited. No fuel additives, power enhancers, or mix-ins allowed; scents permitted. For Trainee and Youth categories, all fuels other than gasoline are prohibited.

## **AIR FILTERS**

Air filters must be properly mounted per manufacturers' instructions.

## **FUEL SYSTEM**

Any naturally aspirated carburetor permitted. Carburetors that are mounted via rubber boots/adapters and clamps must have a secondary mechanical device (bolt, turnbuckle, bracket, etc.) securing the carburetor to the engine/intake manifold. Fuel injection prohibited. Auxiliary vacuum fuel pump permitted; must be pulsed from manifold only. Pressurized fuel systems prohibited. Fuel tank must be located behind driver, below the shoulder hoop of roll cage, and be securely mounted. Insulated fuel tanks prohibited. Maximum one fuel tank permitted. Maximum capacity of fuel tank or cell, 1 gallon. Fuel tank/cell must be equipped with a screw-on or positive locking cap. All vents must be routed downward and away from driver. Open holes(s) in fuel tank/cell prohibited.

## **IGNITION SYSTEM**

Magneto or battery ignition systems permitted. When a battery ignition system is used, the MSD Small Engine Ignition kits 41500 and 41510 and MSD ignition unit 42231 are the only accepted units for NHRA competition. The 42231 is limited to use of a high-side chip only. The low-side chip must be zero. The accepted coils are the MSD 42921, MSD 8232, Master Blaster 2, and Master Blaster 3 coils. Any other coils are prohibited in NHRA competition.

All other battery ignition systems prohibited. Any other attachment prohibited. Ignition systems and/or components must be utilized in an unaltered manner consistent with the manufacturer's installation and instruction books unless otherwise approved.

## **OIL SYSTEM**

Oil additives for the intent of producing power prohibited.

## **STARTER**

Pull-rope or remote starter mandatory. Any driver-activated/operated starting system prohibited.

## **SUPERCHARGER, TURBOCHARGER**

Prohibited.

## **THROTTLE**

All vehicles must be equipped with a positive throttle return spring, which shall close throttle when released. Throttle control must be manually operated by driver's foot: Electronics, pneumatics, hydraulics, or any other device may in no way affect the throttle operation. Throttle stops, other than mechanical (i.e., a positive stop under throttle pedal), prohibited.

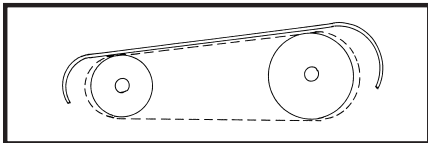
Must be securely mounted (no tie wraps). NHRA-accepted hand controls for the physically challenged permitted.

## VENT TUBES, BREATHERS

Where used, must be securely fastened (no tie wraps). Container/catch tank must be designed to prevent spillage onto racing surface (no open-top containers).

## DRIVETRAIN: 2

### CHAIN GUARD



All cars must be equipped with a guard to cover the width and at least the top run to the forward and trailing centerline of the

sprockets on any chains. Chain guards must be minimum .060-inch steel or .090-inch aluminum. Chain guard must be within 4 inches of the chain at all points. Must be securely mounted (no tie wraps). Plastic and carbon fiber chain guard prohibited.

Moving engine/drivetrain parts must be protected by framrails or guards.

### CLUTCH

Maximum one dry centrifugal-type engine clutch. Chain or belt drive only. Axle clutches prohibited. The clutch face plate must have sufficient material to cover the clutch housing using billet aluminum or steel. All clutch covers designed after April 24, 2006, must be NHRA-accepted. Accepted clutch face plates: Polar, Gaged Engineering, McGee Racing Cams, JR Race Car, Craw Racing, Metro Racing, Power Block (HRD), Comet, Cheetah Supply, Salisbury, Blossom Racing, M&S Machine, Haddock Ltd., MX2, and Brand X Racing Engines, Clay Smith Engineering, Kondor Technologies.

### CLUTCH GUARD

Clutch cover/guard that provides 180-degree coverage over the top of the entire clutch plate, cover, hat, arms, springs, etc. made of .090-inch 2024T3, 6061T6, or 7075T6 aluminum or .060-inch steel mandatory. All other materials prohibited.

### CLUTCH SUPPORT

A clutch/crank support mandatory on any car running 9.99 or quicker, accepted on all vehicles. If a clutch/crank support is used, the clutch-side crank support bracket and bottom plate must be made of .350-inch-thick aluminum at its thinnest point. If the support bracket and bottom plate are built using a .500-inch-thick material, it will be allowed to have a pocket/cavity with a minimum thickness of the bracket .250-inch at its thinnest point. The support bracket must be mounted using three 5/16-inch bolts or four 1/4-inch bolts to the bottom plate. A clutch support arm may be used in lieu of clutch/crank support bracket. Support arm must be made of .625-inch-thick aluminum and connected to block by 1 1/4-inch-diameter stud and held in place by a 3/8-inch bolt. If Tecumseh block and clutch system is used, a clutch support is not mandatory.

### FLYWHEEL

Aftermarket billet flywheel or NHRA-accepted aftermarket flywheel shield mandatory unless original, stock carburetor is used. With original, stock carburetor, aftermarket billet or stock

steel flywheel mandatory. Cast aluminum flywheel prohibited. Keyway modifications permitted. Lightening or modifications to stock flywheel prohibited.

### **TRANSMISSION**

Gear-type prohibited. Torque converter belt assembly units permitted.

## **BRAKES & SUSPENSION: 3**

### **BRAKES**

Two rear-wheel hydraulic drum or disc brakes, or NHRA-accepted mechanical brakes are mandatory. Hydraulic brake lines must be steel or steel braided. High-pressure brake hose must be used with steel line for vibration connections. Front brakes permitted, but only in conjunction with rear brakes. Live axle may have brakes on one wheel only if 7-inch-minimum go-kart puck-type disc brake is used. Use of drive sprocket as a brake rotor prohibited. Drilling of brake components prohibited. Steel disc brake rotors are required and must be a minimum of 7-inch diameter with a .228-inch minimum thickness; dual steel brake rotors, 6-inch diameter with a 3/16-inch minimum thickness; or aluminum brake rotor, 11-inch diameter with a .228-inch minimum thickness. Line-locs prohibited. Hand brake permitted, but must be directly coupled to foot brake; hand brake cannot be independent of, or in lieu of, foot brake. Application and release of brakes must be a direct function of the driver; electronics, pneumatics, or any other device may in no way affect or assist brake operation.

### **SUSPENSION**

Suspension permitted; maximum upward suspension travel 2 inches.

### **STEERING**

Set screw steering shaft couplers/attachments prohibited. All components must have a positive "through" bolt connection; no roll or pressed pins, no ball-lock pins, set screws, etc. All rod ends must be installed with flat washers to prevent bearing pullout. Flexible steering shaft prohibited. Minimum spindle diameter 1/2-inch. Vertical adjustment of spindles via shims is permitted; aftermarket spindles configured to permit a maximum of two front rear locations (with secondary locking devices) to change rollout/wheelbase stagger are permitted. Cars running 8.89 to 7.90 must have rack and pinion steering only.

### **WHEELIE BARS**

Permitted. Using wheelie-bar wheels as "fifth wheel" sensing device prohibited.

## **FRAME: 4**

### **ALIGNMENT**

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

### **BALLAST**

Maximum amount of removal ballast is 25 pounds; maximum amount of total ballast (removable plus permanent ballast) is 100 pounds. Removable ballast must be secured to frame with minimum one 3/8-inch-diameter bolt per 5-pound weight, or two 3/8-inch-diameter bolts for weights of 10 to 25 pounds; hose clamps, wire, strapping, tape, tie wraps, etc. prohibited. If additional ballast is needed, it must be permanently attached

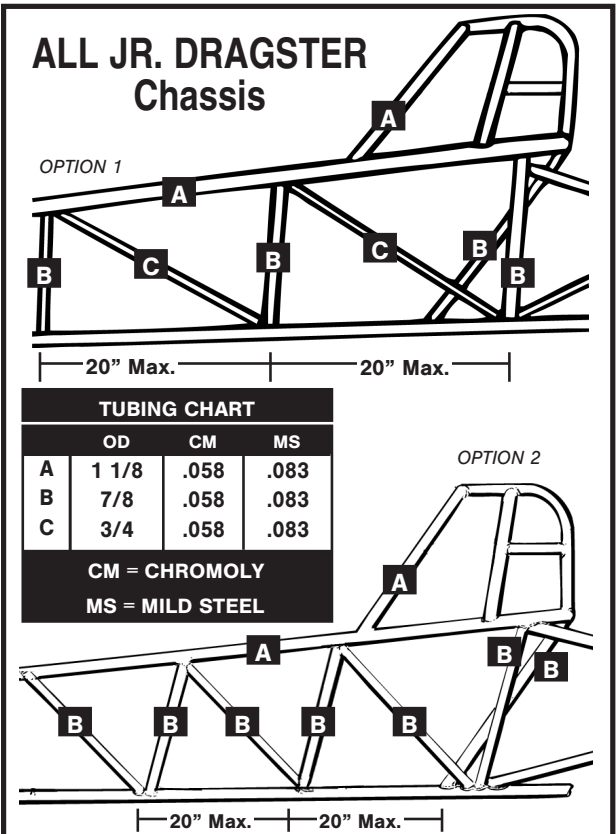
to frame, bolted with minimum one 3/8-inch-diameter bolt per 5-pound weight, or two 3/8-inch-diameter bolts for weights of 10 to 25 pounds with nuts welded to bolts. Ballast must be in the form of metal plates, bars, straps, etc., attached as described above. A steel pipe filled with shot may be substituted; must have screw-on, sealed cap(s). Ballast prohibited in cockpit. No part of ballast may be installed higher than top of rear tires. Discovery of loose or disguised ballast will result in disqualification from the event, regardless of whether infraction occurs during qualifying or eliminations. No ballast may be added, removed, or relocated after the engine has been started. Additional penalties may be imposed in the sole and absolute discretion of NHRA.

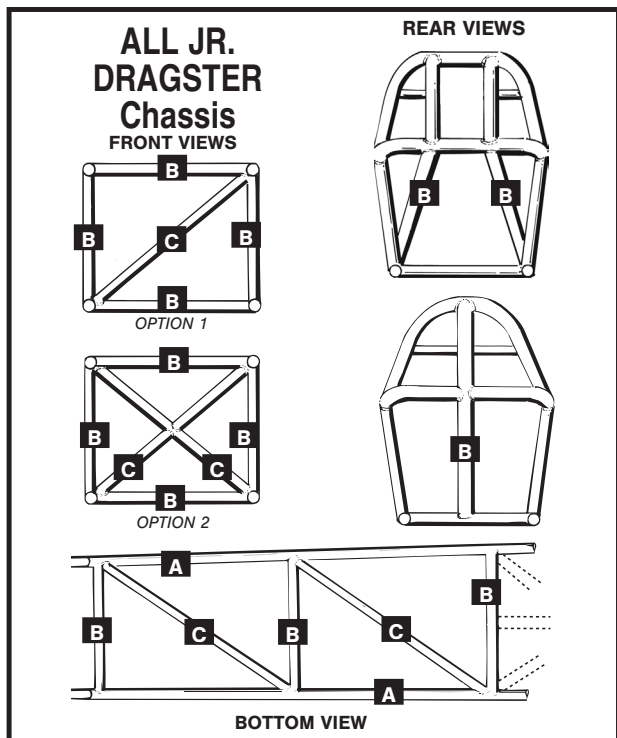
**DEFLECTOR PLATE**

A deflector plate of minimum 1/16-inch aluminum must be installed between roll cage and engine extending from lower framerail to the top of driver's helmet. Portion between shoulder hoop and top of helmet must be minimum 7 inches wide, may be narrowed or rounded above the helmet. Two-piece plate permitted with no air gap between the two. Carbon fiber prohibited.

**GROUND CLEARANCE**

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



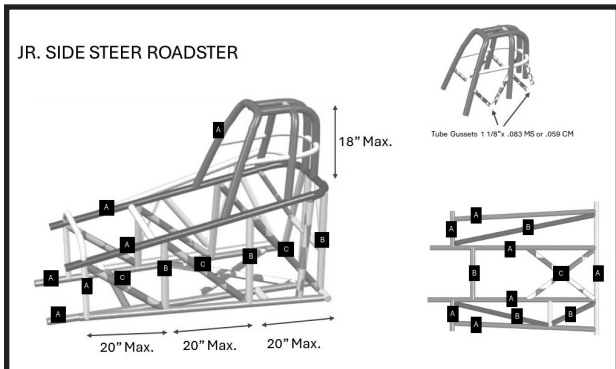


## MOUNTING HARDWARE

Hose clamps and tie wraps may be used only to support hoses and wires; all other components must be welded, bolted, aircraft clamped, etc. All self-locking fasteners must be metallic.

## ROLL CAGE

All new chassis must have manufacturer's name, serial number, and date of manufacture. Construction must conform to standard dragster configuration as outlined in illustration with minimum 5-point roll cage mandatory for dragsters and minimum 6-point roll cage mandatory for NHRA accepted roadsters. When driver is in driving position, roll cage must be at least 3 inches in front of helmet. Roll cage hoops, upper framerails, and lower framerails must be minimum 1 1/8-inch diameter by .083-inch wall thickness round mild steel or tubing. All side steer roadsters with 1 1/8-inch minimum diameter roll cage tubing are required (8) roll cage gussets to be installed from shoulder hoop to roll cage. Tube gussets minimum is 1 1/8-inch by .083-inch mild steel or .058 chromoly wall thickness or plate gussets of .120-inch thickness and must be a minimum of 3-inches long on the short side. Uprights must be minimum 7/8-inch by .083-inch. Diagonals must be minimum 3/4-inch by .083-inch. An upright (within 30 degrees of perpendicular to the lower framerail) is required on each side of the roll cage within six inches of the second roll-cage hoop; must be fully welded to both the upper and lower framerails. If the upright spacing at the top framerail exceeds 28 inches, then a 7/8-inch by .083-inch or 3/4-inch by .083-inch, depending on corresponding diagonal thickness, X must be used in lieu of a single diagonal. Within the driver compartment (from foot box to back of seat), the maximum



distance between uprights is 20 inches. Foot box must incorporate a minimum 3/4-inch by .083-inch diagonal. Note: .058-inch chromoly may be used in place of .083-inch mild steel. Chromoly mandatory on any car running between 8.89 and 7.90.

Helmet bars (3/4-inch OD x .058-inch chromoly tubing or 3/4-inch x .083-inch mild steel, or 1/2-inch x .090-inch flat strap) are required between the secondary upper roll cage hoop and the upper roll cage rear braces on each side of the car. If the center-to-center distance between the upper roll cage rear braces exceeds 6 inches, then an additional helmet bar is required between the back braces. The helmet bars are to be installed at a height above the shoulder hoop that will keep the driver's helmet inside of the upper roll cage.

All cage structures must be designed in an attempt to protect the driver from any angle. With the driver in the normal driving position, the driver's lower extremities, including the knees, must be below the top of the upper framerail. A steering crossmember 1/2-inch x .058-inch chromoly or .083-inch mild steel must be installed or plate or net must be installed across the upper framerails so as to retain the driver's feet/legs in case of upset/incident. The steering crossmember, plate, or net must be located within 6 inches (forward or behind) of the driver's knees. If a crossmember is used, it must be either welded or aircraft clamped (no hose clamps). If a plate is used, it must be either welded or bolted in place unless it is located and fastened below the upper framerails. All chromoly welding must be done by approved TIG heliarc process; mild steel welding must be by approved MIG wire feed or TIG heliarc process. Welding must be free of slag and porosity. Any grinding of welds prohibited. Plating of chassis prohibited on all new vehicles.

**ROLL CAGE PADDING**

Roll-cage padding meeting SFI Spec 45.1 or SFI 45.2 mandatory anywhere driver's helmet may come in contact with roll-cage components during an accident. Roll bar padding must be installed in such a manner that the helmet can never contact any of the roll cage bars, including the front bars of the roll cage.

**WEIGHT**

Minimum weight (without driver or driver apparel/equipment) is 225 pounds.

**WHEELBASE**

Minimum wheelbase 85 inches; maximum 150 inches on long side. Maximum wheelbase variation from left to right, 2 inches.

Jr

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

Rear tires minimum 18-inch diameter by 7 1/2 inches wide, as noted by size designation on sidewall of tire or by physical measurement at widest or tallest point. All front tires must have a manufacturer's maximum inflation rating. Tires may not be inflated above manufacturer's ratings. All tires must be pneumatic; no solid tires. Tires will be visually checked for condition, pressure, etc. and must be considered free of defects by the technical inspector prior to any run. Treatment of tires is prohibited in or near the staging lanes or starting-line area. Tire covers must be removed before leaving the staging lanes.

**WHEELS**

All wheels must be constructed from aluminum, billet, or steel. All other materials prohibited. Front wheels, minimum 5 inches diameter; minimum spindle diameter, 1/2-inch. Spindle nut must utilize a cotter pin or be of the nylon-locking type. Wire spoke wheels must utilize .100-inch-minimum-diameter steel spokes. Rear wheels, minimum 8-inch diameter. Modifications to any wheel prohibited. The use of "spinner"-style wheels or any wheel designs that incorporate movable pieces while vehicle is in motion or stationary are prohibited.

**INTERIOR: 6****FOOT-BOX BULKHEAD**

All cars must be equipped with a bulkhead in front of the driver's feet, minimum .024-inch steel, .032-inch aluminum, or .060-inch carbon fiber. Bulkhead must be directly in front of or directly behind foot-box diagonal.

**SEAT**

Properly braced, framed, and supported seat constructed of aluminum or fiberglass mandatory.

**SHEET METAL**

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

**UPHOLSTERY**

Optional.

**BODY: 7****AIR FOILS, WINGS**

All wings must be bolted to frame structure. A positive locking device to prevent movement mandatory. No part may come in contact with tire or wheel at any time. Spring-loaded spoilers, wings, or canards prohibited. Adjustment of air foils, wings, or spoilers during run prohibited. Ball lock pins and other quick-release fasteners prohibited. No rear wing may be supported with struts, rods, etc. attached to the roll cage. All rear wing supports must attach to the framersails at least 12 inches behind the roll cage. Front wings and spill plates permitted, must be at least 3 inches above the ground, no more than 15 inches forward of the center of the front spindle, and no more than 6 inches wider than the outside of the front tires. Rear wings must be at least 4 inches from rear tires; front wings must be at least 2 inches from front tires. All spill plates must be flat, vertical, and parallel to each other.

**BODY**

Body and cowl must be constructed of aluminum, fiberglass,

or carbon fiber and extend forward to foot-box bulkhead. Driver compartment, frame structure, roll cage, and body must be designed to prevent driver's body or limbs from making contact with wheels, tires, exhaust system, or track surface. Any portion of the body side panels that extend upward into the driver's line of sight must be clear and permit an unobstructed horizontal view for a minimum of 180 degrees. Body may not cover top of engine, wheels, or tires. Front overhang not to exceed 15 inches, measured from centerline of front spindle to forwardmost point of car. Front wheel fairings and front wings that cover any part of the front wheel prohibited.

Body must be NHRA accepted dragster/roadster style/design. Cover or canopy over cockpit prohibited.

### **CENTER STEER ROADSTER**

TRD Supra Jr. roadster is approved for competition. Maximum body width not to exceed 35". Front overhang not to exceed 26 inches, measured from centerline of front spindle to forwardmost point of car. Driver compartment, frame structure, roll cage, and body must be designed to prevent driver's body or limbs from making contact with wheels, tires, exhaust system, or track surface. Any portion of the body side panels that extend upward into the driver's line of sight must be clear and permit an unobstructed horizontal view for a minimum of 180 degrees. Body may not cover top of engine, wheels, or tires. Only NHRA accepted body styles permitted. Only OEM-style mirrors, mounted in the conventional fashion, permitted. Cover or canopy over cockpit prohibited. Outside rear tire to outside rear tire minimum width to be 31 inches. Outside rear tire to outside rear tire maximum width not to exceed the overall width of the TRD Supra roadster rear wheel wells/body. All center steer roadster roll cage and chassis construction must meet the minimum requirements for JR. chassis as listed in the Jr. Drag Racing League rules section of the NHRA rulebook. Roll cage height may not exceed 18 inches as measured from the top of shoulder hoop to the top of the roll cage. The driver's area must have full floor constructed from .024 steel, .032 aluminum or carbon fiber and extend from the driver's seat to the bulkhead. Left and right-side vertical intrusion panels mandatory for the length of the driver's compartment constructed from .024 steel, .032 aluminum or carbon fiber. Primary support of rear axle mandatory. Secondary axle support must be within 12 inches of rear wheel hubs. Secondary axle support may not be required if primary support is within 12 inches of rear wheel hubs.

### **SIDE STEER ROADSTER**

The Next Level C7 Corvette Jr. roadster is approved for competition. Maximum body width not to exceed 50". Front overhang not to exceed 26 inches, measured from centerline of front spindle to forwardmost point of car. Driver compartment, frame structure, roll cage, and body must be designed to prevent driver's body or limbs from making contact with wheels, tires, exhaust system, or track surface. Any portion of the body side panels that extend upward into the driver's line of sight must be clear and permit an unobstructed horizontal view for a minimum of 180 degrees. Body may not cover top of engine, wheels, or tires. Only NHRA accepted body styles permitted. Only OEM-style mirrors, mounted in the conventional fashion, permitted. Cover or canopy over cockpit prohibited. Minimum front tire track width 36 inches. Outside rear tire to outside rear tire minimum width 44 inches. Outside rear tire to outside rear tire maximum width not to exceed the overall width of the NHRA accepted C7 roadster rear wheel wells/body. All side steer roadster roll cage and chassis construction must meet the minimum requirements for JR. chassis

as listed in the Jr. Drag Racing League rules section of the NHRA rulebook. Roll cage height may not exceed 18 inches as measured from the top of shoulder hoop to the top of the roll cage. The driver's area must have full floor constructed from .024 steel, .032 aluminum or carbon fiber and extend from the driver's seat to the bulkhead. Left and right-side vertical intrusion panels mandatory for the length of the driver's compartment constructed from .024 steel, .032 aluminum or carbon fiber. Primary support of rear axle mandatory. Secondary axle support must be within 12 inches of rear wheel hubs. Secondary axle support may not be required if primary support is within 12 inches of rear wheel hubs.

### **COMPETITION NUMBERS**

Each car in competition must display the driver's permanent number. Minimum size: 4 inches x 1 inch. Driver's competition number and class designation must be displayed in a legible manner in a contrasting color to the vehicle's background color, or light color on windows, in a prominent position, and be clearly visible to the tower personnel.

### **FLOOR**

Full floor, mounted on top of lower framerail cross braces, extending from driver's seat forward to 6 inches past pedals, mandatory.

### **WIND DEFLECTOR**

All cars must be equipped with a wind screen or deflector to direct foreign matter over the driver's head. Wind screen or deflector must be a minimum of 4 inches tall. No blinders of any description are permitted. Windscreen minimum opening is 18 inches. Opening is measured from the leading edge of the roll cage or roll cage padding, whichever is less.

## **ELECTRICAL: 8**

### **BATTERIES**

Dry cell batteries only permitted. Maximum total weight 5 pounds. Must be securely mounted outside driver's compartment.

### **BUTTONS/SWITCHES**

Entrants are allowed to use a total of two switches/buttons in the cockpit. One of these switches/buttons is for the ignition shutoff, which cannot be momentary and cannot be reset from the driver's compartment; the second is available for any function (including a momentary ignition cutoff), except for the use of a transbrake or downtrack stutter.

### **DELAY BOXES/DEVICES**

Prohibited.

### **IGNITION SHUTOFF**

A positive ignition shutoff, located within easy reach of driver, and which cannot be reset from the driver's compartment, mandatory. Shutoff switches must be positive action (no "momentary contact" switches) and must be clearly labeled "on" and "off." A second shutoff switch, located on the deflector plate 3 inches or less from the top of the roll cage, within easy reach of crewmember or race official, mandatory. If equipped with a shroud over the top of the roll cage, second shutoff switch must be mounted on top of shroud 3" minimum from rear edge of shroud. The second shutoff-switch wiring must be completely independent of the primary switch (i.e., wired in parallel from end to end of both wires). All

ignition wiring connections, including the coil and switch, must use eyelet, lug, terminal board, or other screw-type connections; push-on-type, quick disconnect-type, and twist-type connectors prohibited. A wire tie, minimum 6 inches long, must be attached to the spark-plug wire within 1 inch of the spark plug. All magneto ignition systems must be equipped with an NHRA-accepted manual kill switch. When a battery ignition system is used, a master cutoff switch ("push/pull" type) is mandatory in the driver's compartment and must be connected to the positive side of the electrical system and must stop all electrical functions. Timed ignition-interruption devices (stutter boxes) or any action that causes ignition interruption prohibited.

### **TAILLIGHTS**

One functioning light mandatory. Must be visible from rear of the car. Taillight must be permanently mounted to the car in a manner that batteries are also secured; tie wraps, wire ties, hose clamps, etc. prohibited. All other lighting (e.g. underglow etc.) may not be illuminated while the vehicle is on the racing surface.

## **SUPPORT GROUP: 9**

### **CAMERAS**

One camera permitted unless NHRA permission is granted for additional cameras. May not be intentionally directed at the racer in the other lane without NHRA permission. Video may not be transmitted in any means or manner without NHRA permission, which permission, if granted, may be revoked at any time. Incident video may not be transmitted under any circumstances. No video monitors permitted in or on the car. Video may not be used in any way to determine track position in real time. Must be securely attached to the vehicle with appropriate fasteners. May not be attached with suction cups, wire ties, hose clamps etc. For any camera mounted external to any vehicle, all mounting brackets, associated fasteners, hardware, etc. from the camera to the vehicle attachment point must be metal, no plastic or nonmetallic components permitted. For all vehicles, attachment to the driver, the driver's helmet, or the steering wheel prohibited.

### **COMPUTERS**

Prohibited. A computer is defined as any device (electrical, mechanical, pneumatic, hydraulic, etc.) that activates any function of, or in any way affects the operation of, the vehicle based on measurement, sensing, processing, etc. of any data related to the performance of the vehicle. Display or transmission of any data gathered or processed, to the driver or any remote location, is prohibited.

### **DATA RECORDERS**

A data recorder may be used to record only engine rpm, engine temperature, exhaust temperature, and jack-shaft sensor data; may not activate or initiate any function of the vehicle. Data recorder may not be activated by the throttle, brake, or other mechanisms, nor by the Christmas Tree, radio transmitter, sensing of wheel speed, inertia, laser device, or transmission of track position. Must be activated by separate switch. Transmission or display of data gathered or processed by data recorder to the driver (during the run) or any remote location is prohibited. Data may be reviewed after the run.

Discovery of a device that displays or transmits "on track"- or "track location"-type data will be grounds for immediate disqualification from event, loss of all points for the season, and suspension from all NHRA Summit Racing Jr. Drag Racing

League events for remainder of season. Additional penalties may be imposed at the sole and absolute discretion of NHRA.

### **GAUGES**

Tachometer, engine-temperature, and cylinder-head-temperature gauges permitted. All other gauges and indicators prohibited. Playback-type gauge(s) permitted. Download capabilities (other than stand-alone tachometers) classify unit as a data recorder, and it must be located outside driver compartment (see also Data Recorders, above). Analog or digital display permitted, this includes Computech Datamaxx JR gauge. Gauges (display) may not be mounted on steering wheel. Speedometer and/or rpm/shift light of any description prohibited.

### **ELECTRONIC CONTROLS**

Prohibited. Electronic controls may in no way affect any functions (i.e., clutch, throttle, brakes, etc.). All controls must be a function of the driver.

### **LIFTING DEVICES**

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

### **STAGING AIDS/DEVICES**

Mechanical, hydraulic, electric, pneumatic, and similar devices to aid in staging vehicle prohibited. Shutoff switches must be positive action (no "momentary contact" switches) and must be clearly labeled "on" and "off." Push-staging any vehicle is prohibited. Staging must be done under the vehicle's own power.

### **TOWING**

A Jr. Dragster is not allowed to be driven under power outside of designated racing areas at any time. Driving of a Jr. Dragster in pit area is strictly prohibited and will subject participant to disciplinary action in the sole and absolute discretion of NHRA. Jr. Dragsters can be towed by either a tow strap or a front-end dolly or a combination of both. No full-size tow vehicles permitted. A Jr. Dragster may not be pushed by any motorized vehicle. It is mandatory that a fluorescent or brightly colored flag be attached to each Jr. Dragster anytime the vehicle is being towed by a strap or a front-end dolly. Minimum height of the flag is five feet.

When the tow strap only method is being used, the driver must be properly seated in the cockpit in the driving position, not sitting on the roll cage or standing up. The tow strap cannot be attached to the roll cage. A total of two vehicles can be towed in tandem with a strap. No vehicles can be towed side by side using a tow strap.

When the front-end dolly method is being used the front end must be secured and the front wheels must be elevated off the ground. A driver is not required in the cockpit when using the front-end dolly method. Any driver that chooses to be in the cockpit must be properly seated in the cockpit in the driving position, not sitting on the roll cage or standing up. A total of three vehicles can be towed by the vehicle dolly method. A tow strap cannot be used in conjunction with the front-end dolly method when more than one vehicle is attached to the front-end dolly.

When using a combination of the front-end dolly and tow strap methods, a maximum of one vehicle may be attached to a front-end dolly and a maximum of one vehicle may be attached to a tow

strap. There must be a driver in the vehicle being towed by the tow strap and they must be properly seated in the driving position, not sitting on the roll cage or standing up. A driver is not required in the cockpit when using the front-end dolly method. Any driver that chooses to be in the cockpit of a vehicle that is being towed by the front-end dolly must be properly seated in the cockpit in the driving position, not sitting on the roll cage or standing up.

### **TWO-WAY RADIOS**

Prohibited. Any communication to and/or from the driver or any telemetry signals between driver/vehicle and/or any remote location prohibited. Use of two-way communication by driver and/or any crewmember to any remote location prohibited. Use of headset or handheld radios by crewmembers in the starting-line area is prohibited. The use of any portable or handheld electronic devices (e.g., iPods, MP3 players) prohibited in staging lanes or on the racetrack.

### **WARM-UPS**

Vehicle must be off the ground and have a qualified Jr. drag racing driver seated in the cockpit any time the engine is running.

## **DRIVER: 10**

### **AGE REQUIREMENTS**

Minimum age 5 years to drive in the League; those 6 and older can race against their peers. Drivers 5 years old restricted to 20.00 or slower e.t.; 6 and 7 years old restricted to 13.90 or slower e.t.; 8 and 9 years old restricted to 11.90 or slower e.t. Drivers 10 to 12 years old restricted to 8.90 or slower e.t. Drivers 13 to 18 years old whose cars meet Advanced class criteria restricted to 7.90 or slower e.t., and 85.00 mph or slower. Drivers 13 to 18 years old whose cars do not meet Advanced class criteria restricted to 8.90 or slower e.t.

### **APPAREL**

Each member of a participant crew must be fully attired when present in the staging, starting, and competition areas of the racetrack. Shoes are mandatory.

### **APPEARANCE**

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

### **ARM RESTRAINTS**

Mandatory. Must be worn and adjusted in such a manner that driver's hands and/or arms cannot be extended outside of roll cage and/or frametrails. Arm restraints shall be combined with the driver restraint system such that the arm restraints are released with the driver restraints. Refer to manufacturer for instructions.

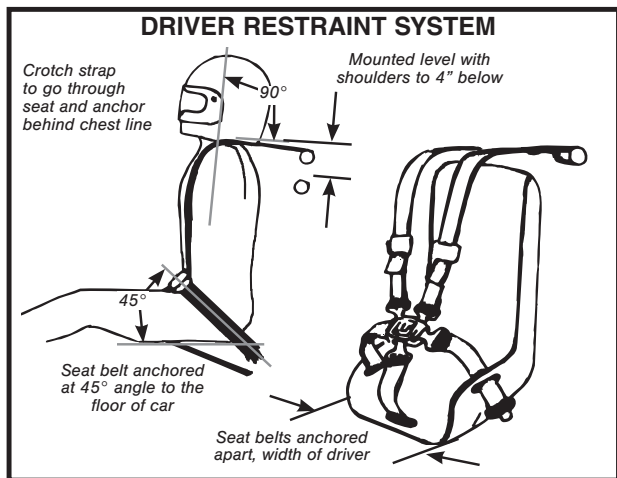
### **CREDENTIALS**

Valid NHRA Summit Racing Jr. Drag Racing League license mandatory.

### **DRIVER RESTRAINT SYSTEM**

Five-point, 1 3/4-inch-wide driver restraint system mandatory. Driver restraint system must meet SFI Spec 16.1 or 16.2 and

be updated at two-year intervals from date of manufacture. All seat-belt and shoulder-harness installations must be mutually compatible, originally designed to be used with each other. For harness installation, see illustration below. Only units that release all five attachment points in one motion are permitted. When arm restraints are worn with a restraint system that uses a “latch lever,” a protective cover must be installed to prevent arm restraint from accidentally releasing the latch lever. Protective cover not required if system uses “duck-bill” latch hardware. All harness sections must be mounted to the frame, crossmember, or reinforced mounting and installed to limit driver’s body travel both upward and forward. Wrapping of belts around lower framemember prohibited. Where belts are wrapped around the frame members, they must be secured from sliding along the axis of the tube/frame member either by a tab or additional tubing. Under no circumstances are bolts inserted through belt webbing permitted for mounting.



**HELMET**

A full-face helmet meeting Snell: SA2015, SA2020, SA2025, K2015, K2020, M2015, M2020, M2025, SAH2010, 24.1/2015, 24.1/2020, 31.1/2015, 31.1/2020, 41.1/2015, 41.1/2020, FIA: 8860-2010, 8859-2015, 8859-2024 or 8860-2018 helmet and shield mandatory. Taping or other modification to the helmet or visor that reduces the driver’s field of vision is prohibited.

NHRA Helmet Expiration Dates			
Label	Expires	Label	Expires
Snell 2015	1/1/2027	Snell CMR 2016 (JDRL only)	1/1/2028
Snell 2020	1/1/2032	FIA 8860-2010	1/1/2028
SFI 31.1 and 41.1/2015	1/1/2027	FIA 8859-2015	1/1/2033
SFI 31.1 and 41.1/2020	1/1/2032	FIA 8860-2018	1/1/2036
SFI 24.1/2015 (JDRL only)	1/1/2027	FIA 8859-2024	1/1/2042
SFI 24.1/2020 (JDRL only)	1/1/2032		

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

For Trainee, Youth, Novice, Intermediate and Advanced Classes: A head and neck restraint device/system meeting SFI 38.1 is mandatory and must display a valid SFI label. 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 38.1 head and neck restraint device/system, including

connecting the helmet as required for full functionality of the device. The SFI 38.1 head and neck restraint device/system, when connected, must conform to the manufacturer's mounting instructions, and it must be configured, maintained, and used in accordance with the manufacturer's instructions. A head and neck restraint device/system may be used with or without an SFI 3.3 neck collar. If the device/system is used without a neck collar, an SFI 3.3 head sock or SFI 3.3 skirted helmet mandatory.

For Masters Class: Neck collar meeting SFI 3.3 Mandatory.

A head and neck restraint device/system meeting SFI 38.1 is permitted. The head and neck restraint device/system, when connected, must conform to the manufacturer's mounting instructions, and it must be configured, maintained, and used in accordance with the manufacturer's instructions.

A head and neck restraint device/system may be used with or without a neck collar. If the device/system is used without a neck collar, an SFI 3.3 head sock or SFI 3.3 skirted helmet mandatory.

### **PROTECTIVE EQUIPMENT**

All drivers are required to wear a jacket and pants meeting SFI Spec 3.2A/1. Shoes, gloves, and socks mandatory. Socks must extend up into the pants. Nylon or nylon-type gloves and socks prohibited. No open-toe or open-heel shoes or sandals. Synthetic clothing not recommended.

## **GENERAL: 11**

### **ADVERTISING AND OTHER MATERIAL/DISPLAYS**

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

## Electric-Powered Jr. Dragster

Requirements and specifications for electric-powered Jr. Dragster vehicles are the same as those for the NHRA Summit Racing Jr. Drag Racing League with the following exceptions:

### DESIGNATIONS

EPJD, preceded by competition number.

Competition is designed to be conducted on an e.t. dial-your-own format or a preset index on a heads-up breakout basis. Actual class or age-group breaks may vary from track to track. Contact your local track for information on class structure.

### REQUIREMENTS & SPECIFICATIONS

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 relevant safety data. A contingency plan must also be provided describing how to handle the battery pack in case of overheating and/or crash. This documentation must include:

- Weight of battery pack and hold down bolt specifications
- Logbook documenting number of runs on battery system, dates, and times of each battery charging/balancing event along with high low and average voltage including cell number.
- Pictures of HV terminals under and around the car showing insulation
- Fuses used and blow curve chart (provided by fuse manufacturer or vehicle builder)

### MOTOR: 1

#### MOTOR

All vehicles are restricted to a maximum of one (1) rear-mounted electric motor. Motor must be mounted in conventional position. Motor with exposed armatures must have a shield of .024-inch steel, .032-inch aluminum, or .120-inch Lexan.

### FRAME: 4

#### DEFLECTOR PLATE

A deflector plate of minimum .125-inch steel must be installed between roll cage and battery pack extending from lower frame rail to the top of driver's helmet. Portion between lower and upper shoulder hoop must extend and attach to the body panel. Two-piece plate permitted with no gaps. Portion between shoulder hoop and top of helmet must be minimum 7 inches wide, may be narrowed or rounded above the helmet. Two-piece plate permitted with no air gap between the two. Carbon fiber, titanium and all other materials prohibited. IF using the .125-inch steel plate forward of the battery per the mounting requirements in the "Battery mounting section" The standard .0625-inch deflector plate can be used.

#### WEIGHT

Minimum weight less driver 225 pounds; weight greater than 400 pounds less driver with all batteries requires SFI chassis specification 2.7.

### ELECTRICAL: 8

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

BMS system mandatory and the below listed functions must be incorporated in the BMS system. BMS is a battery management

system connected to the battery cells and provides automatic charging and discharging control to maintain the battery system within the battery manufacturer's specifications. The onboard BMS system must at least be able to enable and disable charging based on the battery manufacturer's specifications while monitoring the individual or parallel cell groups. It must also have the capability of derating or disabling vehicle based on pack voltage limit by either BMS and/or controller. The BMS must also have the proper pack and cell high/low voltage settings programmed per the battery manufacturer's specifications. BMS system must have the ability to balance individual cells.

There are 6 basic functions the BMS must be capable of doing:

1. Monitor individual cells or parallel cell group voltage.
2. Balance individual cells or parallel cell groups.
3. Control charger function, on/off.
4. Control load (motor) function, on/off.
5. Control indicator light function, green for able to run/charge, good; red for stop functions, bad.
6. Be pre-programmed and "locked out" of end user adjustability.

### **NHRA (NATIONAL HOT ROD ASSOCIATION) APPROVED VENDORS**

[www.Mleracecars.com](http://www.Mleracecars.com) for BMS part number BMSBasic

[www.lonestarevperformance.com](http://www.lonestarevperformance.com) for BMS part number Orion BMS 2

All potential vendors are encouraged to submit their BMS system to NHRA technical department for consideration.

### **BATTERY MOUNTING**

All HV batteries must be securely mounted outside of and completely sealed from the driver compartment and located in a battery containment box. Batteries must be installed to withstand a force four times (vertical) and eight times (horizontal) the weight of the battery pack, and each battery or battery pack must be secured with bolts and straps appropriate for the size and weight of the battery (see chart). Battery containment box must be securely mounted between frame rails or enclosed in chromoly round tube frame minimum 1 1/8 x .058 chromoly tubing or if mounting battery on the rear behind the axle of the dragster it must be in a steel containment box constructed of .040-inch steel. Rear mounted battery box horizontal midline cannot be higher than the rear tires and must be centered directly behind the rear tires. Battery containment box must be constructed of Lexan (min. .120 inch) or aluminum (min. .050 inch) with a nonmetallic insulation lining or; steel (min .040") with a nonmetallic insulation lining. Bottom and sides battery containment box must be solid. If battery is mounted directly behind driver, the forward side of the battery, facing the driver area, must be shielded with a steel plate (min. .125" inch) and must extend the entire inside width of the frame rails or minimum 1" beyond the width of the battery box. Be positioned no further than 1 inch forward of the battery and be tall enough to extend from the base of the battery box to at least 6 inches above the top of the battery. The battery box top must contain water access holes covering at least 25% of the surface area.

### **BATTERIES**

All new and reconditioned batteries must have an inspection date (original date of manufacturer and/or inspection date) stamped on the battery by the inspecting manufacturer. 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. 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 logbook for reference. Mounting: Each battery pack must be secured with bolts and/or straps commensurate with its size and weight and installed to withstand a force four times (vertical) and eight times (horizontal) the battery pack's weight. (Contact NHRA for requirements) Battery packs may not be located directly above the top of rear or drive tires in open wheeled cars.

<b>Battery on Flat Surface with Two-Bolt Strap Only</b>			
<b>Bolt Size</b>	<b>Grade 1 Battery</b>	<b>Grade 5 Battery</b>	<b>Grade 8 Battery</b>
#8		16	22
#10		20	28
1/4	14	36	50
5/16	23	58	82
3/8	34	86	121
7/16	46	117	166
1/2	61	157	222
9/16	78	201	284
5/8	97	250	353
<b>Battery in Rack or Box-Mounted</b>			
<b>Bolt Size</b>	<b>Grade 1 Battery</b>	<b>Grade 5 Battery</b>	<b>Grade 8 Battery</b>
#8	15	39	55
#10	19	49	69
1/4	35	88	124
5/16	57	145	205
3/8	83	214	302
7/16	114	293	413
1/2	152	392	553
9/16	195	503	710
5/8	243	624	881

## **BATTERY CHARGING**

Batteries may be recharged in pits or other designated areas only. Batteries must be charged outside of trailers or enclosed areas and must not be left unattended during the charging process. 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 redundant ways to shut off the charging system in case of an overcharged condition. All battery cells should be balanced prior to charging. 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 must not be stored, during an event, at top of charge.

## **FUSING OF BATTERIES**

All battery packs must have over-current protection. Circuit breaker(s) or fuse(s) permitted. Such protection devices must have a DC voltage rating equal to or greater than nominal pack voltage. The current rating must be lower than master disconnect contactor, cabling, and battery pack can carry without damage. Each battery pack must be individually fused and located on or in the battery pack. Fuses must not be wired in parallel. Fuses must be properly rated for application. Drive system (motor controller/inverter) must be fused either before or after the main contactor.

**IGNITION**

All vehicles must be equipped with a switch, attached to the driver with a lanyard, capable of shutting off all power to the motor. Switch may actuate relay or contactor. Solid state switch prohibited. A flashing yellow light must be affixed to the top of the roll cage indicating that the HV system is ready to run.

**READY LIGHT AND HIGH VOLTAGE INDICATOR LIGHTS**

Mandatory – all cars must have an LED or LED's that can illuminate red/green. The red/green LED light must also be affixed to top of the roll cage. Green/Red light must be functional during charging, balancing, and driving. The light(s) must illuminate GREEN in color if BMS system is active and all systems are functioning properly (SAFE). The LED(s) light 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 Master Cutoff Switch 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.

**MASTER CUTOFF SWITCH**

All vehicles must incorporate a master electrical disconnect switch that will disengage the contactor on the high voltage system, disabling the high voltage for the drive system. The low voltage system must, at a minimum, continue to illuminate the high voltage safety indicator lights, BMS, VCU and IMD (if installed). Master Cutoff Switch must be on the deflector plate no more than three inches from the roll cage's top. Must be clearly labeled as to "off" position.

**IMD**

An IMD (Insulation Monitoring Device) is suggested. 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. The owner/driver is responsible for understanding the IMD system and for testing and demonstrating its functionality upon request.

**VOLTAGE**

Maximum permitted design voltage 144 Vdc nominal. Voltage verified through readings or display of BMS. Maximum fully charged battery-pack voltage of 150 Vdc.

**CABLE TERMINATIONS AND TERMINALS**

- All areas of the driver's compartment from the deflector plate to the end of the pedal box area must be free of any high voltage wiring to provide safety personnel with a safe area to cut around the driver in the event of an accident.
- Electrical cables and electrical equipment must be protected against mechanical failure, etc.).
- Cables, connectors, and wiring utilized in the HV system must have an insulation rating at or above the maximum fully charged voltage of the HV battery system being used.
- All cable terminations and splices must be properly terminated and covered with insulation at least equal to that of the maximum fully charged voltage of the HV battery system being used to protect against accidental contact.
- All traction wiring must be isolated from vehicle chassis.

# Jr. Comp

Requirements and specifications for Jr. Comp vehicles are the same as those for the NHRA Summit Racing Jr. Drag Racing League with the following exceptions:

## DESIGNATION

J/C, preceded by car number.

The class is conducted on the eighth-mile format.

Jr. Comp may not run against, or side by side with, any other Jr. Drag Racing League category.

## AGE REQUIREMENTS

Drivers may compete from the day of their 14th birthday through the year of their 20th birthday (December 31 of the year they turn 20). Driver must complete test runs and obtain a Jr. Drag Racing League Jr. Comp competition license before participation.

Car and driver older than 16 may compete in appropriate E.T. category.

## E.T. RESTRICTIONS

Dial-in restricted to 6.90 seconds or slower based on either an e.t. dial-your-own or heads-up basis; breakout rules apply. In qualified events, no racer can qualify quicker than 6.900.

Any racer running quicker than 6.70 or faster than 110.00 mph at any time during an event will be disqualified from the event. Any racer running quicker than 6.50 e.t. or faster than 114.99 mph at any time during the event will be disqualified from the event, and will be subject to additional disciplinary action in the sole and absolute discretion of NHRA.

## REQUIREMENTS & SPECIFICATIONS

### ENGINE: 1

#### CAMSHAFT

Overhead valves; overhead cams permitted.

#### ENGINE

All vehicles restricted to one four-stroke, OEM motorcycle, snowmobile, personal watercraft, or industrial engine (nonautomotive), with a maximum of four cylinders and a minimum of two cylinders. Must be NHRA accepted. Any internal modifications permitted. Aftermarket cylinder heads permitted.

#### EXHAUST

Outlet(s) must be directed rearward, away from driver and engine. No part of tailpipes may extend beyond the rear of the chassis or tires, whichever is greater. Mufflers permitted. Subject to local regulations and track rules, vehicle must not be able to exceed 90 decibels as measured on the A scale at 50 feet from the car while under acceleration on the racetrack. An engine shield mandatory between engine block and exhaust system.

#### FUEL

Restricted to gasoline, alcohol, or gasohol. Nitrous oxide and/or propylene oxide and/or nitromethane prohibited.

**FUEL SYSTEM**

Fuel injection permitted. Electronic fuel injection must be a "closed" system (i.e., monitors only engine functions and does not monitor vehicle speed, wheel speed). Pressurized fuel system permitted. Maximum capacity of fuel tank or cell, 3 gallons. Fuel tank/cell must be equipped with a screw-on or positive locking cap. All vents must be routed downward and away from driver. Open holes in fuel tank/cell prohibited.

**FUEL LINES**

All fuel lines (including gauge and/or data recorder lines) must be metallic, steel-braided, or NHRA-accepted woven or woven-pushlock.

**IGNITION**

Battery ignition system permitted.

**STARTER**

Onboard starter permitted. Pull-rope or remote starter permitted. No push-starting allowed.

**DRIVETRAIN: 2****CLUTCH**

Centrifugal, slider, or conventional motorcycle clutch permitted. If non-centrifugal clutch is used, clutch handle may be mounted on steering wheel or may be operated through use of a clutch pedal. If clutch pedal is used, hand brake mandatory. Electronics, electric solenoids, pneumatics, hydraulics, or any other device may in no way affect the clutch operation.

**FLYWHEEL**

Aftermarket billet flywheel or NHRA-accepted aftermarket flywheel shield mandatory. Stock steel or cast aluminum flywheel prohibited. Keyway modifications permitted.

**TRANSMISSION**

Permitted. Transmission may be shifted by direct action of the driver or with a preset time OR rpm-activated electrical, mechanical, pneumatic, or hydraulic device only. Rpm-based automatic shifters may not have a time delay incorporated into the device. Torque converter belt assembly units permitted in lieu of transmission. The shift timer start switch may be activated by the throttle pedal, clutch pedal, or throttle shaft: the shift timer switch may not control or be wired into any other component on the race car.

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

Two rear-wheel hydraulic disc brakes mandatory. With a total car weight of 1,000 pounds or less, and a one-piece rear axle, may use a single brake rotor with dual calipers. Hydraulic brake lines must be steel or steel braided. High-pressure brake hose must be used with steel line for vibration connections. Front brakes permitted, but only in conjunction with rear brakes. Use of drive sprocket as a brake rotor prohibited. Drilling of brake components prohibited. Line-locs prohibited. Hand brake permitted. If used, must be located inside body or driver compartment. Application and release of brakes must be a direct function of the driver; electronics, pneumatics, or any other device may in no way affect or assist operation of brakes.

**STEERING**

Rack-and-pinion steering mandatory.

**FRAME: 4****ROLL CAGE**

Mandatory. Must conform to SFI Spec 2.7. Plating of chassis prohibited. Chassis must be inspected every three years by NHRA and have a serialized sticker affixed to the frame before participation.

**WEIGHT**

No minimum weight.

**WHEELBASE**

Minimum 150 inches; maximum 190 inches on long side. Maximum wheelbase variation from left to right: 2 inches.

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

Rear tires minimum: 20-inch diameter by 8 inches wide, as noted by size designation on sidewall of tire or by physical measurement at widest and tallest point.

**ELECTRICAL: 8****BATTERIES**

Dry or wet cell batteries permitted. Any battery weighing more than five pounds must be secured with minimum of two 3/8-inch-diameter bolts directly to frame or frame structure.

**BUTTONS/SWITCHES**

Entrants will be allowed to use multiple buttons and switches in the cockpit. One of these switches/buttons is for the master cutoff, which cannot be momentary. Additional switches may be used for the starter, data recorder, water pump, fan, fuel pump, etc. The use of line-locs, transbrakes, or downtrack stutter devices is prohibited, and no switch or associated wiring, solenoids, or any other component associated with these devices may be on the car.

**IGNITION**

Timed ignition-interruption devices (stutter boxes) prohibited. Two-step devices legal unto themselves, but altered or installed so as to function as a downtrack rpm controller, prohibited. Two-step must be activated by release of the clutch pedal/handle, brake pedal/handle, or brake pressure switch. The two-step switch may only be used for activation of the two-step. The two-step switch may not control or be wired into any other component on the car. The use of any multipoint rev limiter and/or rate of rpm acceleration limiter of any description (whether stand-alone or a collection/composition of components) is prohibited. Ignition system may not be connected to the brake system, throttle control, or transmission shifter/position system. The use of an rpm-activated shift light is permitted on all cars. All wiring associated with the ignition system must be fully visible, labeled, and traceable.

**SUPPORT GROUP: 9****DATA RECORDERS**

Single-channel playback tachometers permitted. Any and all installed data recorders may only be connected to/record a maximum of four sensors/channels per run. Additional unconnected/non-used sensors may be on the vehicle. Data recorder may not activate or initiate any function of the vehicle. Other than data-recording functions built into NHRA-accepted

ignition systems (such as the MSD SB6) that start data acquisition automatically, data recorder may not be activated by the throttle, brake, two-step, or any other mechanisms, nor by the Christmas Tree, radio transmitter, sensing of wheel speed, inertia, acceleration, laser device, or transmission of track position. Must be activated by separate switch by the driver or crewperson. Transmission or live-time display of any data gathered or processed by the data recorder to the driver (during the run) or remote relocation is prohibited. Data from any sensor connected to the data recorder, other than a playback tachometer, may not be displayed during the run. Data may be only reviewed after the run.

### **GAUGES/INSTRUMENTS**

One tachometer, engine/cylinder head/water temperature, oil pressure, and fuel pressure gauge permitted. Speedometer of any description prohibited.

## **DRIVER: 10**

### **AGE REQUIREMENTS**

Drivers may compete from the day of their 14th birthday through the year of their 20th birthday. Car and driver older than 16 may compete in appropriate E.T. category.

### **CREDENTIALS**

Valid NHRA Jr. Comp license required. License requires test runs and witnesses.

### **DRIVER RESTRAINT SYSTEM**

Driver restraint system meeting SFI Spec 16.1 or 16.2 mandatory. Restraint system must be updated at two-year intervals from date of manufacture. When arm restraints are worn with restraint system that uses a "latch lever," a protective cover must be installed to prevent arm restraint from accidentally releasing the lever. Wrapping of belts around any framerail prohibited.

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

Beginning June 1, 2020, a head and neck restraint device/system meeting SFI 38.1 is mandatory and must display a valid SFI label. 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 38.1 head and neck restraint device/system, including connecting the helmet as required for full functionality of the device. The SFI 38.1 head and neck restraint device/system, when connected, must conform to the manufacturer's mounting instructions, and it must be configured, maintained, and used in accordance with the manufacturer's instructions. A head and neck restraint device/system may be used with or without a neck collar. If the device/system is used without a neck collar, an SFI 3.3 head sock or SFI 3.3 skirted helmet mandatory.

### **PROTECTIVE EQUIPMENT**

Jacket and pants meeting SFI Spec 3.2A/5, gloves meeting SFI Spec 3.3/1 mandatory for all drivers.