

TOP ALCOHOL FUNNY CAR

Rules amendments:

1/27/22:

The allowance of any year model NHRA approved Funny Car body. So what that means is any FC body that has ever been approved is allowed in MWDRS.

8/24/22:

Updated firesuit and glove liner requirements.

DESIGNATION

TAFC, preceded by car number.

Reserved for alcohol burning Funny Cars built specifically for drag racing competition. Cars are weighed at the conclusion of a run, including driver. Any year model NHRA accepted Funny Car body permitted.

Supercharged with screw-type supercharger, methanol: 2,300 pounds minimum weight.

Supercharged with Roots-type supercharger, methanol: 2,200 pounds minimum weight.

REQUIREMENTS & SPECIFICATIONS

ENGINE: 1

CYLINDER HEADS

Aftermarket billet heads permitted. Maximum two valves per cylinder; maximum two spark plugs per cylinder.

ENGINE

Any internal-combustion reciprocating, single-camshaft, automotive-type engine permitted. Maximum bore center spacing 4.840 inches. Dry-sump oil system permitted. OEM production line overhead cam engines permitted. Engine must be equipped with a lower-engine-ballistic/restraint device meeting SFI Spec 7.1. The lower-engine-ballistic/restraint device must be specific for the oil pan and pump configuration being used and must fit according to the requirements of SFI Spec 7.1 and be used as appropriately designed for the specific application. A positive method (flange, lip, etc.) must be attached to the intake manifold or engine block to retain both the front and rear manifold to block gaskets in the event the engine crankcase/lifter valley become over-pressurized. The flange/lip must extend past the surface of the gasket and be contoured to closely fit the block and manifold surfaces to prevent the gasket(s) from extruding. All large (valve covers, intake manifolds, superchargers, headers, heads, blocks, etc.) and all moving engine components are restricted to aluminum, steel, iron, titanium, magnesium, or other conventional alloys; carbon fiber, Kevlar, ceramics, composites, beryllium, or other extraordinary materials prohibited. Metal, fiberglass, or carbon fiber injector hats and/or injector scoops are permitted. Any modifications or alterations to engine blocks, cylinder heads, and engine components are deemed to be a change in design and therefore prohibited. This includes any redesign, reconfiguration, and/or modification to existing components. Refer any development, redesign, reconfiguration, and/or modification questions to the NHRA Technical Department to determine whether permitted or prohibited. All permitted engine combinations must adhere to the following criteria:

1. Maintain interchangeability of existing parts (i.e., cranks, cams, manifolds, valve covers, rocker assemblies, etc.)
2. Maintain general combustion-chamber configuration (e.g., Hemi, canted valve). Fuel injection directly into cylinder prohibited
3. Maintain original cylinder orientation in reference to centerline of crankshaft
4. Retain cylinder head, timing cover, intake manifold, exhaust manifold, valve-cover bolt pattern; additional bolts/studs/dowels may be used
5. Retain as cast/forged minimum block wall and web/rib thickness. A current list of alcohol head specifications can be

found on NHRARacer.com.

Maximum cubic inch is 528-cid for screw-type-supercharger-equipped cars; maximum 565-cid for Roots-type-supercharger-equipped cars.

EXHAUST

Competition exhaust permitted. Exhaust must be directed to rear, away from driver and fuel tank. Double pipe insulated exhaust headers mandatory. Double tube must extend to start of bend at bottom of body.

FUEL SYSTEM

Fuel tanks must be mounted above bottom frame rail. Fuel cells recommended. EFI prohibited. Pressurized fuel tanks prohibited. Tanks must be vented outside of body lines to prevent fire from being drawn into tank through vent. Fuel tank vent, maximum 1-inch-diameter hole in front of body to vent fuel tank outside of body only. A failure to pass the minimum fuel-temperature check in the staging lanes prior to a run will result in the forfeiture of that run, and the racer must return to the racer's pit. A failure to pass the minimum fuel-temperature check after a run will cause that run to be disqualified. Outside of the pit area, insulated fuel lines and tanks prohibited with the exception of a temporary one-piece flexible blanket-type material, maximum 1 inch thick, that wraps one time around the outside of the body panels in the vicinity of the fuel tank. The wrap must be quick release and require no additional work on the body or any tools to remove and be no more than 12 inches longer than the fuel tank. Any temporary insulation must be removed prior to and without delaying the starting of the engine. Maximum two fuel pumps. The use of propylene oxide and/or nitrous oxide is prohibited. Insulated fuel lines and fuel tanks prohibited. Minimum temperature of fuel in the staging lanes to the completion of the run and subsequent NHRA fuel check is 50°F. See General Regulations 1:5.

HEADERS

Minimum Funny Car header angle 32 degrees. Maximum header pipe O.D. 2.75 inches. O.D. and I.D. must remain constant beginning 8 inches below the header flange to the exit of the header.

INJECTOR SCOOP

Injector scoop may not extend more than 18 inches forward of the center of the forward engine cylinder, may not extend more than 12 inches behind the center of the rear engine cylinder, may not be higher than the top of the windshield, may not have more than 1 square foot of opening area, and may not be more than 24 inches wide.

OIL LINES

All flexible-pressure oil lines, excluding return lines and any line 30psi or lower in pressure, must use a factory-crimped connection and be pressure-tested and labeled. All testing must be hydrostatic for minimum 30 seconds at 750psi. Label must indicate date, PSI, and tester ID. Labeling must be impervious to fuel and brake clean. Quick disconnect, plastic, and nylon lines are prohibited. The lines must be tested and tagged to indicate that they have been tested within two years. Test and tag services are available at national events. All of the lines must be routed in such a way that they are not directly in line with cylinder head gaskets at the front, rear, or side of the cylinder heads.

OIL-RETENTION DEVICE

Engine oil-retention device mandatory. Minimum material, .050-inch aluminum or .040-inch carbon fiber/Kevlar. Pan must extend forward a minimum of one inch from the front face of the lower pulley and may not extend rearward past the crossmember under the pinion flange. Pan may be no wider than outside edge of the bottom framerails and must extend to the top of the upper framerails. Pan must be either a one-piece design or constructed as to be sealed as a retention device to retain oil. Must have minimum four-inch-high bulkheads for oil retention during acceleration and deceleration. Front bulkhead must be forward a minimum one inch of the lower blower pulley, and rear bulkhead must be behind the rear of the bellhousing. Bulkheads must be "coved" toward oil pan to assist oil in staying within the confines of the bulkheads. A nonflammable, oil-absorbent liner mandatory inside of retention device. Minimum number of slots or holes in the walls to clear frame, steering, or lines permitted.

SUPERCHARGER

Roots-type maximum size: 14-71, 22 1/4-inch case length, 11 1/4-inch case width, 19-inch rotor length; maximum rotor diameter: 5.840 inches including fixed stripping. The case must be one piece with removable front and rear bearing end plates; rotor must be contained within one-piece case. Helix is restricted to a maximum rotor spiral of 6.5 degrees per inch of rotor length. Manifold burst panel meeting SFI Spec 23.1 plus restraint system meeting SFI Spec 14.2 mandatory. The

rotors must be driven from the front (both the external drive and the internal gearing). The entire inlet opening must be on/in the upper surface only. Any inlet/outlet cavity in front of the rotors is restricted to maximum 2.150 inches, measuring from the face of bearing plate to the back of the cavity. Billet cases prohibited. The maximum length from the front of the supercharger drive pulley to the leading edge of the rotor is 15 inches. The use of spacers, modified cases, offset drive pulleys, or attaching methods to move the supercharger rearward in excess of the specified amount is prohibited. All manifold configurations and supercharger modifications and locations must be accepted prior to competition. Variable multispeed supercharger devices prohibited. Supercharger must be in conventional location above the intake manifold and cylinder heads, and supercharger restraint device may not be modified. Placement of any object/device below the upper mating surface of the supercharger intended to alter air flow characteristics is prohibited (e.g. inserts/shoes, dividers, etc.). Screw-type superchargers must meet SFI Spec 34.1 and be re-inspected by the manufacturer every three years. Manifold burst panel meeting SFI Spec 23.1 (in addition to panel in supercharger) plus restraint system meeting SFI Spec 14.21 mandatory. Billet cases prohibited. Supercharger restraint straps must be covered with a fire-resistant material. The blower restraint straps, and fuel lines must be installed such that when the restraint straps are fully extended no load is placed on any of the fuel lines.

Maximum overdrive limits are 1.92 PSI and 1.70 Roots. Placement of any object/device below the upper mating surface of the supercharger intended to alter air flow characteristics is prohibited (e.g. inserts/shoes, dividers, etc.). Cars with a supercharger/intake manifold burst panel in the rear must have a .024-inch steel, or .032-inch aluminum ducting, or carbon fiber ducting lined with an NHRA-accepted flame-retardant covering or coating, 4-inch minimum diameter, installed to relieve burst pressure from the burst panel(s) vicinity through the firewall and out the side window. Variable multi-speed supercharger devices prohibited. Turbocharger(s) prohibited.

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. Dual throttle springs, one on each end of all injector throttle shafts that extend through both ends of the injector body, mandatory. A mechanical device for controlling engine rpm during burnouts may be attached to the injector or throttle linkage but may not be driver-controlled.

VALVE COVERS

Cast or fabricated metal valve covers using all attachment bolt holes mandatory. Valve-cover restraints meeting SFI Spec 14.4 mandatory on all non-supercharged, nitromethane-burning engines. Valve-cover gaskets, O-rings, etc. must be completely bonded/glued to either the valve cover or cylinder head sealing surface. Vent tube adapters on the valve covers must either be fully welded to the valve covers or incorporate a gasket or O-ring that is bonded/glued to either the adapter or the valve cover. Valve covers must be fastened to the cylinder heads with studs and nuts in lieu of bolts where possible. Spark-plug tubes that penetrate the valve covers must have a restraining device to contain the spark-plug tube in the valve cover in the event the spark plug is discharged.

VENT TUBE BREATHERS

Catch can/vent tube system mandatory. Twist-on/quick-disconnect fittings between the vent tube hoses and the valve cover vent tube adapters must incorporate a secondary locking device such as a hasp pin; ball lock pin prohibited. Tape is not a satisfactory primary or secondary locking device. Double clamps are required on each end of all hoses used in the vent system, including the dry-sump vents. Minimum 1 1/4-inch inside diameter hoses are required from each valve cover to the catch can inlets and/or framerrails and from each framerrail outlet to both catch can inlets. Minimum catch can(s) capacity is a 1-gallon sump (i.e., below the bottom baffle) when the valve cover discharges are routed through the upper framerrails; otherwise, a 2-gallon sump capacity is mandatory. Minimum catch can inlet and outlet/discharge configuration is two 1 1/8-inch inside diameter openings (or equivalent area). NHRA-accepted vent tubes/hoses are mandatory for all connections; see NHRARacer.com for a list of accepted vent tubes/hoses. Vent tubes must be unobstructed from the interior of the valve cover to the interior of the catch can; i.e., no orifices, reduced areas, filler materials, etc. Pan/crankcase vacuum systems, of any description, are prohibited. See General Regulations 1:13.

DRIVETRAIN: 2

CLUTCH, FLYWHEEL, FLYWHEEL SHIELD

Flywheel and clutch meeting SFI Spec 1.3 or 1.4 and flywheel shield meeting SFI Spec 6.2 mandatory on all cars. Three discs maximum on supercharged, methanol-burning cars. Maximum depth of flywheel shield: 9.4 inches (inside). Clutch must be manually operated by driver's foot: Electronics, pneumatics, hydraulics, or any other device may in no way affect the clutch

system. Throwout bearing must release all fingers, levers, stages, etc. simultaneously. Staged or variable release clutches of any description prohibited. Clutch/bellhousing exhaust filter mandatory.

DRIVELINE

Anti-blowback device mandatory.

DRIVELINE COVER

Each end of driveshaft must have a full 360-degree cover of minimum 1/16-inch steel or 1/8-inch aluminum. Rear cover must surround the coupler. Front cover must surround the driveshaft from the back of the reverser to the end of the splicer sleeve in the area of the driver's legs. All covers must be securely mounted to frame, suitable crossmember, reverser, or third member.

REAR END

Aftermarket full-floating or live axle assembly mandatory. Maximum (numeric) gear ratio 4.30 for screw-type-supercharger-equipped cars, 4.58 for Roots-type-supercharger-equipped cars. See General Regulations 2:11.

TRANSMISSION

OEM or OEM-modified transmissions prohibited in all classes. Aftermarket planetary transmission permitted in supercharged classes, limited to two units (three forward speeds). Lockup converters prohibited. Overdrive transmission prohibited. Final drive ratio must be 1:1. Clutch hold-down device recommended on all cars. Reverser mandatory. Automated shifters and/or timer-type shifting devices prohibited; each individual shift must be a function of the driver. Air shifter bottles must be stamped as meeting DOT-1800 pound rating and permanently mounted (hose clamps or tie wraps prohibited). For the supercharged-methanol combinations only, the use of a transmission consisting of an aftermarket torque converter and an aftermarket planetary transmission (three-speed maximum) with an electric-only transbrake is permitted. The unit must be NHRA-accepted. Contact NHRA Technical Services for accepted list. The use of a delay box/device is prohibited. An aftermarket SFI 29.1 flexplate (with no starter ring gear) or a solid-steel converter driveplate, an SFI 6.1, 6.2, or 6.3 flywheel shield, and an aftermarket SFI 4.1 one-piece transmission shield (covering the transmission units and the reverser) are required.

BRAKES & SUSPENSION: 3

BRAKES

Automated brakes prohibited: Application and release of brakes must be a function of the driver. Four-wheel disc brakes with dual master cylinder mandatory. Carbon-fiber brake rotors used in conjunction with carbon-fiber specific brake pads (front and rear) mandatory; all other materials prohibited. Steel brake lines mandatory. Brake lines passing engine or blower drive must be shielded. NHRA-accepted fireproof brake line covering mandatory on all (front and rear) flexible connection lines. A current list of NHRA-accepted fireproof brake line coverings is available on NHRARacer.com. Hand-brake handle must be constructed of minimum 5/16-inch-thick by 1-inch-wide aluminum, steel, or titanium. Lightening of hand-brake handle (i.e., holes, machining, etc.) prohibited.

STEERING

Plating of steering components prohibited on all cars.

SUSPENSION

Plating of front suspension components prohibited on all cars.

WHEELIE BARS

Mandatory; must be functional. Maximum height 4 inches measured from racing surface to bottom of wheel. Wheels must be nonmetallic.

FRAME: 4

BALLAST

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

HELMET SHROUD/DEFLECTOR PLATE

All vehicles in Top Alcohol Funny Car must have a rear roll-cage shroud. A multipiece shroud is permitted. The shroud must be constructed of minimum .075-inch Grade 2 ASTM-B-265 titanium or .090-inch 4130 steel or be of NHRA-accepted composite construction and must be shaped to conform to the roll cage. The shroud must be attached to each of the side bars with a minimum of three 1/4-inch-minimum-diameter Grade 8 bolts and bosses per side, to the top with one 1/4-inch-minimum-diameter Grade 8 bolt and boss, and to the rear bars with a minimum of two 1/4-inch-minimum-diameter Grade 8 bolts and bosses per side. Tabs with bolt and nut, where the nut is welded to the tab, may be used in place of the bosses. Three-piece shields must be made with two side shields and a center section. The shroud must be installed flush with or be filled/sealed to the upper roll-cage bars and shoulder hoop so that protective equipment cannot catch between the shroud and the roll-cage components. Absolutely no components may be mounted to the helmet shroud above the top of the shoulder hoop. Bolt heads must be 1/2-inch hex-style head.

PARACHUTE

Dual parachutes mandatory. Two separate shroud line mounting points mandatory with sleeved 1/2-inch-minimum Grade 8 steel bolts with self-locking nuts or with nuts welded onto parachute brackets. Shroud line mounting brackets must be constructed of minimum 3/16-inch 4130 steel. Two NHRA-accepted parachute tethers are required and must be routed through each shroud line end loop and be attached using the rear end mounting bolts on each side. The mounting attachments on each end of both tethers must attach to either separate rear end mounting bolts or opposite ends of a single bolt (one under the head of the bolt and the other under the nut). NHRA-accepted parachute tethers: Amick Race Car Restraints PARA-101REV1, Future Fibres FF30MLB-P-MB, or Taylor Motorsports 108. When Future Fibres FF30MLB-P-MB is used, only one tether is required and must be routed through each shroud line end loop and be attached using the rear end mounting bolt on each side. All tethers must be covered with a fire-resistant material. The parachute floor must be flat and may not extend more than 6 inches rearward or beyond the parachute pack, whichever is less. The measurement will be taken from the mounting point on the rear of the body. The use of a wicker prohibited. See General Regulations 4:8.

ROLL CAGE

Chassis must meet SFI Spec 10.1. All wiring must be external of the frameroils; routing of cables, hydraulic, or pneumatic lines inside the chassis is permitted. Chassis must be recertified yearly by NHRA and have serialized sticker affixed to frame before participation. See General Regulations 4:4, 4:11, 10:6.

ROLL-CAGE PADDING

Roll-cage padding meeting SFI Spec 45.1 mandatory where driver's helmet may come in contact with roll-cage components. Additional padding mounted on flat stock and fastened to the roll cage on both sides of the driver's helmet, mandatory. Additional padding must be NHRA-accepted (with manufacturer's name displayed), securely mounted using bolts or locking fasteners, and must include a flame-retardant covering. A current list of NHRA-accepted lateral head supports is available on NHRARacer.com. See General Regulations 4:11.

WHEELBASE

Minimum 100 inches; maximum 125 inches on long side. Maximum wheelbase variation from left to right: 2 inches. Rear tread width cannot be outside of body line nor more than 3 inches inside body line. Front tread width must be no more than 6 inches inside body line. Measurements will be taken from outside edge of tire to inside edge of body.

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 without lifting the body and not stressing the body when the car is being towed. Hoops must line up with the centerline of the car below the body-release rod and clearly marked on the body with an arrow pointing down.

TIRES & WHEELS: 5

TIRES

Tires must be specified for racing use by manufacturer. Maximum rear tire: 18 inches wide x 118 inches maximum circumference. Minimum rear tire circumference: 108 inches. Tires are to meet size requirements when installed and ready to run at manufacturer's recommended operating pressures.

WHEELS

Rear wheels meeting SFI Spec 15.1 mandatory; maximum width: 16 inches. Wire wheels prohibited. Rear-wheel discs or covers prohibited. Use of a liner mandatory on non-beadlock wheels. See General Regulations 5:2. Must be completely isolated from driver compartment. See General Regulations 5:2.

INTERIOR: 6

SHEET METAL

Driver compartment interior, firewall, seat, etc. must be aluminum or steel. Magnesium or carbon fiber prohibited; carbon fiber injector "doghouse" permitted.

SEAT

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

BODY: 7

AIRFOILS, WINGS

Prohibited.

BODY

Any modification to body not expressly permitted in this Rulebook is prohibited. Any body that meets the Funny Car (Section 17) body requirements in their entirety is acceptable for Top Alcohol Funny Car competition. These bodies must be run as they come from the NHRA-accepted molds. Any modification not expressly permitted in the Funny Car (Section 17) body requirements is prohibited. Otherwise, for cars running at MWDRS all bodies must be an NHRA-accepted sports car, coupe, or sedan body of a type originally mass-produced by automobile manufacturer (domestic or foreign). Must have originally measured 63 inches wide or more at centerline of front and rear axle. Maximum body and/or roof width cannot exceed stock dimensions. Duplications of production bodies of fiberglass or carbon fiber permitted. Body may be lengthened or shortened. Front and rear contour of body must resemble same configuration and design for specific body used; holes for air passage prohibited. Maximum body width variation from front to rear is 6 inches. Minimum body width is 60 inches when mounted. Bodies are measured at centerline of front and rear axles. Enclosing the wheel-wells or the use of wheel fairings is prohibited. Fender flares or lips (maximum 1 inch) not on original factory-produced bodies will not be considered in any width measurement.

Wheelwell openings: front, minimum 5 inches measured vertically from centerline of the front axle to wheelwell opening; rear, minimum 8 inches measured vertically from centerline of rear axle to wheelwell opening. Trailing edge of rocker minimum of 18 inches measured directly from centerline of rear axle. Front overhang not to exceed 40 inches from centerline of front axle. Beltline moldings (if on stock vehicle), headlight and taillight housings or indentations must be incorporated into body. Headlights and taillights must be painted or decaled to simulate OEM appearance and configuration. Taillight area may be hinged (top only) for air venting, maximum 100 square inches per side; any other holes in rear of body prohibited. Hood scoops prohibited; injector must protrude through hood. Maximum dimensions of hood cowling, 26 inches wide by 5 inches high. Opening for blower hat must have a minimum 2.500-inch clearance between body and throttle linkage. Wicker permitted on front and sides of blower opening; maximum height 1 inch. Wicker must be installed 90 degrees to body. Rocker panel extensions may not be more than 1 inch wide. Ground effects of any description prohibited. Ground effects include, but are not limited to, rocker skirts, belly pans, sheet-metal work under the body that produces a "tunnel" for the passage of air, rub bar/splitter cannot extend beyond the inside body line, etc. All bodies run in competition must be run as they come from the respective molds. Final determination on all body modifications rests with MWDRS Technical Department. Bodies must be removable from a rear-release mechanism that must be accessible in the taillight panel area. The rear-release mechanism may be of any mechanical design. The mechanism must be unobstructed and easily visible and not located within 3 inches of any other opening. Release handle must be of a T-handle design with a minimum measurement of 3 inches in length. Contact NHRA Technical Services Department for acceptable design, operation, and installation. Body (hood) burst panel, minimum 288 square inches, mandatory on all screw-supercharger-equipped cars. Body burst panel must be secured with plastic screws and two NHRA-accepted body burst panel tethers, with separate body pads for each of the two tethers bolted with a plate on both sides of panel. NHRA-accepted body burst panel tethers: Amick Race Car Restraints part number JF-101. Any new body designs or concepts must receive approval

from MWDRS prior to competition. Plans, drawings, pictures, etc. must be submitted to the MWDRS Technical Department for approval. Body specifications may vary for certain exhibition vehicles; prior MWDRS approval necessary. Underside of body, including any roof area and all the composite components such as timer boxes, etc., must be covered with SFI Spec 54.1 flame-retardant covering or coating. Must be applied according to the manufacturer's specifications and recommendations, and must be applied externally. All bolts and fasteners on body, windows, etc. must have button heads toward outside of body. All stiffeners must be placed on the inside of the body, whether on windows, spoiler, etc. Mounting trees for body may not be adjustable. The framing must be a permanent fixture, with no adjustments. Any method used to allow the body to move (e.g., springs, dampers, etc.) during the run is prohibited.

ESCAPE HATCH

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

FENDERS

Four stock-type fenders mandatory. Alterations to accommodate axle relocation permitted. Front fender bubbles may not exceed 2 1/2 inches as measured from flat portion of fender line to top of bubble.

FIREWALL

Must be aluminum or steel; magnesium prohibited. V-shaped firewall (see diagram) constructed of a minimum .040-inch aluminum permitted; otherwise, portion of the firewall between skin of the body and the chassis can be no higher than 12 inches, as measured from the bottom of the rocker panel to the bottom of the firewall. Must be equipped with "fire windows" measuring no greater than 25 square inches on either side of firewall in vicinity of valve covers to warn driver of fire. Laminated safety glass or fire-resistant plastics such as Lexan or Plex 70 mandatory. See General Regulations 7:4.

GRILLE

Must be equipped with a simulated grille of same configuration and design for specific body used; holes for air passage prohibited.

REAR BUMPER

Must be equipped with rear bumper consisting of a minimum vertical surface of 3 inches; maximum permitted cutout for parachute shroud lines, 4 inches by 30 inches. The trailing edge of rear bumper may not extend more than 54 inches from the centerline of the rear axle. Maximum measurement from trailing edge of rear bumper to ground, 29 inches at rear tire pressure of 4.5 PSI. Maximum 1-inch lip permitted on rear bumper as a stiffener; not included in overall measurement.

SPOILERS

Permitted front and rear. Rear spoiler cannot be "built in" to body. Rear deck relocation cannot extend more than one-third of the as-produced replica body's rear window. Side surfaces of elevated decks must be completely covered by spoiler spill plates. Maximum rear spoiler width, including spill plates and attachment points, 54 inches. Rear spoiler spill plates cannot be located forward of the centerline of the rear axle and onto rear quarter. Spill plates cannot be more than 5 inches above the roof line. Rearmost point of spill plate may not exceed 60 inches past the centerline of the rear axle. Spill-plate supports permitted on one side of spill plate only, not both. Lip on rear edge of spill plate (vertical) .5-inch maximum. The trailing edge of rear spoiler may not extend more than 56 inches past the centerline of the rear axle, may not be more than 3 inches above the roof line, and the forward and trailing edge may not be mounted so as to preclude a "wing" configuration. Wicker on spoiler not to exceed 2 inches forward or back. Installation of vortex generators is permitted on the spoiler assembly only; prohibited on car body. Any adjustment or movement during run prohibited. Airflow through spoiler or past the underside of spoiler, other than hinged taillight area, prohibited.

WINDOW

Windshield mandatory. Side windows optional. If windows are used, they must be clear. Rear window and quarter windows (if stock equipped) must be defined by actual route line in body and painted (or decaled) to simulate glass. Side windows must have a minimum 6-inch-diameter opening adjacent to driver. See General Regulations 7:8.

ELECTRICAL: 8

ELECTRICAL COMPONENTS

Electrical and electronic components are restricted to ignition systems, data recorders, electrical gauges or indicators, automated fire extinguisher, and engine shutoff system components only. The use of electrical/electronic timers to control pneumatic fuel-system valves and/or electric fuel control solenoid valves is permitted. The fuel control system may use only movement of the throttle or clutch pedal, a transmission shift, electric/electronic timers, and/or an engine rpm switch to control the fuel-system valves and/or to start the timers that control the fuel-system valves.

IGNITION

Programmable ignition permitted. Only preset times, throttle position, engine rpm, other internal engine data (temperatures, flow rates, and pressures), and transmission shifts may be processed with regard to control of the ignition system. Any ignition system that incorporates any programmable multi-point rev limiter and/ or any rate-of-acceleration rpm limiter in any form is prohibited. Any ignition system that incorporates vehicle performance data via measurement, sensing, processing, inference, etc. to activate or deactivate any function or capability of the ignition system is prohibited. Any sensor or wiring that connects or transmits vehicle performance data directly, or indirectly, to the ignition system is prohibited. Ignition system components must be utilized in an unaltered manner consistent with the manufacturer's installation and instruction manuals unless otherwise approved. The use of any automated rpm-control device during the staging/launching process is permitted only in vehicles with a fully automatic transmission with a converter. See General Regulations 8:3.

IGNITION SYSTEM

All microprocessor ignition components prohibited. See General Regulations 8:3.

MAGNETOS

Maximum two magnetos; two spark plugs per cylinder, not to exceed 44 amps per magneto. Magnetos limited to the following models: MSD Pro Mag Systems, 12 or 20 amp, 8109, 8139, 8149, 7908, 7910, 7915, 7916, 8150, 8160; MSD Pro Mag Systems, 44 amp, 8130, 8140; Mallory Super Mag Series 3, 4, 6, 7, 11.

SUPPORT GROUP: 9

FIRE EXTINGUISHER SYSTEM

Fire extinguishing system must meet SFI Spec 17.1. Minimum 20-pound NHRA-accepted fire extinguishing system mandatory. System must be divided so that a minimum of 15 pounds is directed into engine compartment by means of nozzle outlets placed in front of each bank of exhaust headers. Remaining 5 pounds or more should be dispersed in driver compartment by means of an atomizing nozzle placed at driver's feet. Must be installed per manufacturer's specifications. Fire bottle activation cables must be installed inside framerail where cables pass engine/bellhousing area. See General Regulations 9:3 for NHRA-accepted fire extinguishing agents. If equipped with a pneumatic-activated extinguishing system, a manual- activated extinguishing system is mandatory. If a manual-activated extinguishing system is primary, no backup system is required.

SHUTOFF DEVICE

Properly installed and operational Electrimotion Top Alcohol Funny Car Shutoff Controller Kit (part number SB001T AFC) and Electrimotion Shutoff Receiver (part number RF001) mandatory. The Electrimotion Top Alcohol Funny Car Safety Shutoff Controller Kit must be properly installed per the manufacturer's instructions. Modification of or tampering with the Electrimotion Top Alcohol Funny Car Safety Shutoff Controller Kit prohibited. The Electrimotion Crew Alert Box, part number CB001 and the Motorsports Safety Electronics Shutoff System part number MS1150, may be used in conjunction with the Shutoff Device to illuminate a dash light for driver notification, disengage throttle and/or enable the shutoff device. Any other use of the Electrimotion Crew Chief Alert box or the Motorsports Safety Electronics Shutoff System is prohibited.

TOW VEHICLES

Permitted. See General Regulations 9:12.

WARM-UPS

See General Regulations 9:5, 9:14.

DRIVER: 10

ARM RESTRAINTS

Mandatory. See General Regulations 10:3.

CREDENTIALS

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

DRIVER RESTRAINT SYSTEM

All belts must be covered with a fire-resistant covering. Minimum 6-point driver restraint system meeting SFI Spec 16.1 mandatory. All shoulder, lap, and leg straps may be wrapped around a frame or chassis tube, provided the belt is properly aligned toward the direction of pull. When fastened with driver in position, absolutely no "folds" are permitted in any belt(s). Otherwise, all belts must be mounted to the chassis via mounting brackets that are bolted or welded to the chassis per the manufacturer's instructions. If the bracket is bolted through framerrail or chassis tube, the hole in framerrail or chassis tube must be bushed, with both ends of the bushing completely welded to the tube. Whether mounted directly to frame or to a tab welded to the frame, the mounting bracket attachment bolt must be in double shear and of shoulder bolt design so as to permit the bracket to pivot and align toward the direction of pull. Shoulder belts may utilize two individual straps, each with its own mount and mounting point; for a single strap, it must wrap a minimum of 540 degrees around the shoulder hoop.

Mounting points must be covered with either sheet metal or an acceptable fire-resistant material. See General Regulations 10:5.

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). 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. See General Regulations 10:7.

Fresh-air breathing system mandatory. System must be manufactured and installed by the original helmet manufacturer or with written authorization of the original helmet manufacturer. Helmet must meet applicable SFI, FIA, and/or Snell Specs with fresh-air system installed. Compressed air only. Air can be supplied "on demand" or by constant pressure. See General Regulations 10:10

PROTECTIVE CLOTHING

Driver's suit meeting SFI Spec 3.2A/20, gloves 3.3/20, boots 3.3/20, and head sock 3.3 mandatory. All jacket and pants or driver suits that meet SFI Spec 3.2A/20 must be recertified on a five-year interval (year date on suit plus 4 years). Beginning January 1, 2023 glove under-liners made of flame retardant material and socks meeting SFI 3.3 mandatory. Additionally, beginning January 1, 2023, a one-piece driver's suit will be mandatory in addition to the above requirements. 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 metallic jewelry prohibited. See General Regulations 10:10