



## 2016 JAMWEST SPEEDWAY GENERAL REGULATIONS

### 1. ENGINE

1.1 COOLING SYSTEM Front engine dragsters must have system installed in front of engine. Rear engine dragsters with radiator mounted in front of engine must install a deflector from frame rail to frame rail and to the top of the roll cage. Portion above shoulder hoop may be width of roll cage bars, unless radiator extends above top of shoulder hoop. If radiator extends above shoulder hoop, then deflector plate must maintain width of radiator. See 4.3 DEFLECTOR PLATE.

1.2 ENGINE Classes limited to automotive engines only unless otherwise stated under Class Requirements.

Valve train must incorporate conventional automotive coil spring design; pneumatic-type valve trains are prohibited in all classes.

All classes, except ET cars slower than 9.99 seconds, harmonic balancer meeting SFI Spec 18.1 or solid metallic hub mandatory.

1.3 EXHAUST All cars must be equipped with exhaust collectors, headers, or stacks installed to direct exhaust out of car body away from driver and fuel tank.

Exhaust stacks must have a metal connecting strap to prevent loss of one or more stacks during competition. Removable multi-piece exhaust system components must be securely fastened with either a header tether, or a minimum 1/2-inch (12.7 mm) stitch weld located on each primary tube to prevent loss of system components during competition.

If mufflers are used, they must be securely attached to exhaust system and car body or frame.

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

1.5 FUEL SYSTEMS Location: All fuel tanks, lines, pumps, valves, etc. must be outside of the driver's compartment and within the confines of the frame and/or steel body. Cool cans, in full-bodied cars, must be mounted a minimum of 6 inches (152 mm) forward of the flywheel/bell housing area on rear-wheel-drive (RWD) vehicles, and on opposite side of flywheel/housing area on front-wheel-drive (FWD) and 4WD vehicles. Fuel-distribution blocks and fuel-pressure gauge isolators must be located at least 6 inches (152 mm) forward of the flywheel/bell housing area. Fuel pressure isolators, with steel braided line, may be mounted on firewall.

Tanks: All fuel tanks must be isolated from the driver's compartment by a firewall, completely sealed to prevent any fuel from entering the driver's compartment. All fuel tanks must have a pressure cap and be vented outside of body. A positive-locking screw-on fuel tank cap is mandatory on all open-bodied cars. Insulated fuel tanks prohibited.

Lines: All non-OEM fuel lines (including gauge and/or data recorder lines) must be metallic, steel braided, or "woven or woven pushlock". A maximum of 12 inches (304.8 mm) total (front to rear) of non-metallic or non-steel braided hose is permitted for connection purposes only; individual injector nozzle lines excluded. Fuel lines (except steel braided lines) in the flywheel/bell housing area must be enclosed in a 16-inch (406 mm) length of steel tubing, 1/8-inch (3.2 mm) minimum wall thickness, securely mounted as a protection against fuel line rupture.

It is mandatory that fuel lines passing supercharger drive belts be steel braided, woven or woven pushlock, or be enclosed in protective steel tubing. Fuel lines may not be routed in the driveshaft tunnel. No hose clamps allowed on non-rubber fuel lines.

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

Fuel/Air: Cool cans, wet towels, etc. are permitted. Wet towels, rags, ice, etc. must be removed before vehicle leaves staging area.

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

1.6 FUEL Racing Gasoline: Gasoline is defined for purposes of this Appendix as a mixture of hydrocarbons only.

Methanol: Methanol is sold in two Grades: A and AA. Either grade is permitted for use in JAMWEST SPEEDWAY competition. Racers are cautioned to keep methanol containers tightly capped at all times to minimize the absorption of water.

Nitrous Oxide: Nitrous oxide permitted. The use of any agents other than nitrous oxide as part of, or mixed with, this pressurized fuel system is strictly prohibited. All bottles must be securely mounted, stamped with minimum 1800 pound (124 bars) CE or DOT rating, and identified as nitrous oxide. Nitrous oxide bottle(s) located in driver compartment must be equipped with a relief valve and vented outside of compartment. System must be commercially available and installed per manufacturer's recommendations.

All vehicles using a bottle of nitrous oxide should bear a mark in accordance with drawing n<sup>o</sup> 23. The mark will be clearly visible and will be located in a place which is not likely to be damaged in the event of an accident. Commercially available, thermostatically controlled blanket-type warmer accepted. Any other external heating of bottle(s) prohibited.

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

1.7 LIQUID OVERFLOW All cars in competition with any type of water overflow capable of spilling water must have a catch-can to accumulate the excess liquids and prevent leaking onto the track.

Minimum catch-can capacity: 1 pint (.47 l). Catch-can must be securely fastened; i.e., bolted, clamped. Overflow may be routed into headers.

1.8 LOWER ENGINE CONTAINMENT DEVICE Vehicles may utilize a lower engine oil-retention device, a belly pan may be used in lieu of a device attached to the engine. The belly pan must extend from frame rail to frame rail and extend forward of the harmonic balancer and to the rear of the engine block and must incorporate a minimum 2-inch-high (51 mm) lip on all sides unless specified in Class Requirements. A non-flammable, oil absorbent liner is mandatory inside of retention device.

An SFI Spec 7.1 or 7.2 Lower Engine Containment Device must cover the sides of the block and pan up to within one inch (25.4 mm) of the head mating surface and extend to within 1 1/2 inches (38.1 mm) of the front and rear of the cylinder case area. The front and rear of the oil pan must be covered upward to the pan rail. The device must be free of cuts, tears, openings, etc., that would allow oil to escape. The device must be secured with a minimum of four straps, one at each corner. A positive device must be used to cover and contain external oil pumps that fasten directly to the engine; this device must fit such that it will contain oil from an engine failure. The device must be a solid member (hard part) along the top edge to form a zero air gap between sides of the device (and/or the absorbent material) and the engine block. The device must be updated/ recertified by the original manufacturer. SFI Spec 7.1 at one-year intervals and SFI Spec 7.2 at five-year intervals.

1.9 OIL SYSTEM Accu-sump, dry-sump tanks, oil filters, oil supply lines, etc. permitted in driver compartment. Metal or steel braided line mandatory. Oil-pressure gauge and line permitted in driver compartment. Metal or steel braided line mandatory, maximum 3/16-inch (5 mm) inside diameter.

1.10

#### SUPERCHARGER

Roots-type: The case must be one piece with removable front and rear bearing end plates; rotor must be contained within one-piece case.

Roots-type high helix: Aluminium studs (supercharger to manifold) mandatory.

Screw-type: PSI screw supercharger permitted to use a tandem burst panel kit, installed per PSI instructions on superchargers only. Any other use of double burst panels on any supercharger or manifold prohibited. Aluminium studs (supercharger to manifold) mandatory.

Cars running 9.99 seconds or quicker: Fuel and/or oil lines must be shielded wherever they pass the supercharger drive belt. Either a belt guard or fuel/ oil line guard may be utilized. Variable multispeed supercharger devices prohibited regardless of supercharger type. 1.11 SUPERCHARGER RESTRAINT DEVICE Supercharger restraint system meeting SFI Specs mandatory for Roots-type. All superchargers on methanol except screw-type require a SFI14.2 restraint. All screw-type superchargers require an SFI 14.21 restraint. 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. Restraint system must be updated at two-year intervals from date of manufacture.

1.12 THROTTLE Regardless of class, each car must have a foot throttle incorporating a positive-acting return spring attached directly to the carburettor/injector throttle arm. A positive stop or override prevention must be used to keep linkage from passing over center and sticking in an open position. In addition to return springs, some means of manually returning the throttle to a closed position by use of the foot must be installed on all altered linkage systems except hydraulically or cable-operated systems. Throttle control must be manually operated by driver's foot; electronics, pneumatics, hydraulics, or any other device fitted by OEM permitted. Commercially available cable throttle systems are permitted. FIA-accepted hand controls for the physically challenged permitted. Choke cables and brazed or welded fittings on steel cable prohibited. No part of throttle linkage may extend below frame rails.

1.13 VENT TUBES, BREATHERS Permitted on all cars. Where used, the tubes must terminate into an acceptable, permanently attached catch-tank with a minimum capacity of one gallon (3.79 l) per engine (except as noted in Class Requirements). The catch-tank must be baffled to keep overflow off track. Breather/vent tubes must be mechanically secured (tie-wraps prohibited) to the fittings and the fittings locked at both ends.

## 2. DRIVETRAIN

2.1 ANTI-BLOWBACK DEVICE If mandated by Class Requirements, a brace or device must be installed that will prevent the bell housing or adapter shield from being blown rearward in the event of flywheel and/or clutch explosion. Material required is 4130 chrome moly (or Reynolds 531) or Docol R8, minimum size is .875-inch O.D. x .083-inch (22.22 mm x 2.1 mm) wall tubing with 3/8-inch (10 mm) fasteners. Ball-lock pins prohibited.

2.2 AXLE-RETENTION DEVICES All cars, except some cars as noted in Class Requirements, must be equipped with a satisfactory means of rear axle retention; minimum .120-inch (3 mm) aluminium retainer or .090-inch (2.3 mm) steel bearing retainer mandatory.

2.3 CLUTCH Each car in competition, except those with automatic transmissions, must be equipped with a foot operated clutch incorporating a positive stop to prevent clutch from going over center or past neutral, as in the case of centrifugal units.

All pedals must be covered with non-skid material. FIA- accepted hand controls for the physically challenged permitted. All slider clutches must meet SFI Spec 1.2, 1.3, or 1.4 as outlined under Class Requirements.

In Class Requirements that call for an SFI Spec 1.2 clutch, an SFI Spec 1.5 clutch can be used. Multi-disc clutch assembly supercharged, nitrous-oxide injected, and turbocharged vehicles must meet SFI Spec 1.5 and must utilize a SFI Spec 6.3 flywheel shield. Multi-disc clutch assembly for non-OEM supercharged, nitrous-oxide injected, and non-OEM turbocharged vehicles must meet SFI Spec 1.3, 1.4, or 1.5 and must utilize an SFI Spec 6.2 or 6.3 flywheel shield, except as noted in Class Requirements.

2.4 DRIVELINE For cars with drive shafts that contain universal joints:

For all full-bodied and open-bodied cars running between 7.50 and 13.99 in place of a cross member located behind but within 6-inches (152.4 mm) of the center of the front universal joint: A front driveshaft loop is required on all cars, except vehicles running 11.49 seconds or slower.

Full-bodied cars 7.49 seconds and quicker with OEM floor retained (i.e. OEM floor may be modified according to class requirements for transmission removal but must be intact from 6-inches (152.4 mm) behind the center of the front universal joint rearward: A front driveshaft loop is required.

Full-bodied cars 7.49 seconds and quicker with the OEM floor removed/replaces: Each end of the driveshaft must have a round 360-degree driveshaft loop within 6- inches (152.4 mm) of the U-joint and a driveshaft tube is also required.

Open-bodied cars 7.49 seconds and quicker where the driveshaft passes any part of the driver's body: Each end of the driveshaft must have a round 360-degree driveshaft loop within 6-inches (152.4 mm) of the U-joint and a driveshaft tube is also required. The driveshaft tube must extend to the full length of the portion of the driveshaft that passes any portion of the driver's body or extend to within 6- inches (152.4 mm) of the centerline of the rear U-joint. For center steer cars with the driver seated above the driveshaft in lieu of a driveshaft tube: A plate above the driveshaft of minimum thickness .120-inch (3.05 mm) steel or titanium with a minimum of four attachment points to the chassis, using either minimum 5/16-inch (8 mm) Grade 8 bolts, welded, or 1/4-inch (6.35 mm) push/pull pins may be used. The plate must be at least as wide as the seat.

For cars with drive shafts that do not contain universal joints but pass any part of the driver's body: Each end of driveshaft must have a full 360-degree cover of minimum 1/16-inch (1.6 mm) steel or 1/8-inch (3.2 mm) aluminium. Rear cover must surround coupler. Front cover must surround the driveshaft from the back of the reverser to the end of the splicer sleeve in the area of the driver's legs. All covers must be securely mounted to frame, suitable cross member, reverser, or third member.

DRIVESHAFT LOOP DEFINITION: 360 degrees enclosure, 1/4-inch (6.35 mm) minimum thickness and 2-inches (5.1 cm) wide, or 7/8-inch (22.2 cm) x .065-inch (1.65 mm) welded steel tubing, securely mounted to the frame or frame structure where available (or to the OEM floor or rocker box where a frame does not exist) and located within 6 inches (15.24 cm) of the front or rear universal joint for support of the driveshaft in the event of U- joint failure.

DRIVESHAFT TUBE DEFINITION: Driveshaft must be covered by a 360-degree round, oval, or tapered tube, covering the front U-joint and extending rearward a minimum of 12-inches (30.5 cm).

Minimum thickness of tube is .050-inch (1.27 mm) steel or titanium. Driveshaft tube must utilize a minimum of four attachment points to the chassis, using either minimum 5/16-inch (8 mm) Grade 8 bolts, welded, or 1/4-inch (6.35 mm) push/pull pins. Two-piece tube assembly is permitted with a minimum of six (6) 3/8-inch (9.5 mm) Grade 8 bolts.

2.5 FLYWHEEL Weight reduction by machining of stock-type cast iron flywheels and/or pressure plates prohibited.

2.6 FLYWHEEL SHIELD & MOTOR PLATE: GENERAL Absolutely no modifications to as-manufactured design are permitted on SFI Spec 6.1, 6.2, or 6.3 flywheel shields and/or liners.

For all new flywheel shields and for all flywheel shields certified or recertified after April 1 2013, all liners must be flush with motor plate; liners may be notched for starter gears/snouts.

The flywheel shield must be fastened to the engine and motor plate with a full complement (all available engine bolt holes or as specified by the manufacturer) of Grade 8 (or Class 12.9) bolts or high strength studs. The use of Allen bolts to fasten the shield to engine or motor plate, to fasten covers, etc. is prohibited.

All bolts (not studs or nuts) used for flywheel shield mounting, covers, etc. must be identifiable as to grade; all nuts and bolts associated with flywheel shield mounting, covers, etc. must be full standard depth, width, etc. (reduced thickness bolt heads, hollow bolts, half nuts, thin wall nuts, etc. prohibited).

Maximum depth of flywheel shield is 8 5/8 inches (21.9 cm).

Maximum thickness of all motor plates, mid-plates, mounting plates installed between engine and flywheel shield is ½-inch (12.7 mm), except SFI 6.1 which may be 1 ¼-inch (32 mm) maximum. All covers and fasteners associated with the flywheel shield must be installed prior to starting engine at any time, including warm-ups.

Maximum spacing between flange fasteners in the flywheel shield is 7 inches (178 mm). Chemical milling or any other structure-weakening procedures are prohibited. Welding to repair a flywheel shield is prohibited unless it is performed by the manufacturer and recertified by the manufacturer prior to use.

For cars equipped with an SFI 7.1 lower engine ballistic/restraint device, a maximum of two holes, each no larger than 2-inches (51 mm) in diameter (or 3.14 square inches [20.26 cm<sup>2</sup>] equivalent area) are permitted. The holes must be located entirely below the horizontal centerline of the crankshaft. The holes must be at least 0.5-inch (13 mm) from any bell housing bolt hole and be separated by at least two (2) inches (51 mm). SFI 6.2 flywheel shields may have one (1) 2-inch (51 mm) maximum diameter hole in the bottom of the back face of the shield. The opening in the motor plate for the crankshaft flange may not exceed the crankshaft flange diameter by more than 1-inch (25 mm).

All Front-Wheel-Drive or transverse-mounted applications using a clutch and running 11.00 or quicker, for which an SFI Spec 6.1, 6.2, 6.3 flywheel shield is not commercially available, must be equipped with a flywheel shield made of 1/4-inch (6.35 mm) minimum thickness steel plate. Shield must surround the bell housing completely except for area of bell housing adjacent to differential and axle shaft. Shield may be multi-piece, with pieces bolted together using minimum 3/8-inch (10 mm) diameter Grade 5 or M10 class 8.8 bolts; may be attached to engine and/ or bell housing. Titanium flywheel shields are permitted.

## 2.11 REAR END

Welded spider gear rear ends prohibited in all classes. Four-wheel drive permitted. Aftermarket axles recommended and axle-retention device mandatory on 9.99 or quicker cars; also mandatory on any car (regardless of class or ET) with a spool.

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

2.13 TRANSMISSION, AFTERMARKET PLANETARY A transmission shield covering transmission and reverser that meets SFI Spec 4.1 is mandatory if engine burns nitromethane, methanol, nitrous oxide or is supercharged or turbocharged, or on any overdrive unit. Air shifter bottles must be stamped with CE or DOT-1800-pound (124 bar) rating (minimum), and be securely mounted (no tie-wraps or hose clamps).

At least three (3) bolts, 3/8-inch (9.53 mm) minimum, must be used to secure aftermarket planetary transmissions to bell housing.

2.14 TRANSMISSION, AUTOMATIC Any non-OEM automatic floor-mounted automatic transmission shifter must be equipped with a spring loaded positive reverse lockout device to prevent the shifter from accidentally being put into reverse gear. Functional neutral safety switch mandatory. All transmission lines must be metallic or high pressure-type hose.

All vehicles running quicker than 9.99 seconds or faster than 135 mph (217.2 km/h) and using an automatic transmission must be equipped with a transmission shield meeting SFI Spec 4.1 and labelled accordingly. "Blanket" type shield, appropriately labelled as meeting SFI Spec 4.1 permitted. All no blanket- type shields must incorporate two (2) (or one (1), per manufacturer's instructions) 3/4 x 1/8-inch (19 mm x 3.2 mm) straps that bolt to the shield on each side, and pass under the transmission pan, or transmission pan must be labelled as meeting SFI Spec 4.1. Permitted in all classes where an automatic transmission is used.

Cars 9.99 or quicker, and 135-mph (217.2 km/h) or faster using an automatic transmission, Lenco Drive, or BRT must be equipped with a flex plate meeting SFI Spec 29.1 or 29.2 and covered by a flex plate shield meeting SFI Spec 30.1. Transmission that can utilize a high-gear trans brake must be supported by the use of two momentary buttons (one to arm the system, second as the main trans brake). Air shifter bottles must be stamped with CE or DOT-1800 pound (124 bar) rating (minimum) and be securely mounted (i.e., no tie wraps or hose clamps).

All cars running 9.99 seconds and quicker must have locking-type dipstick on the transmission and dipstick/filler tubes must be securely fastened (i.e. bolted, aircraft clamped). Wire ties, hose clamps, etc. are prohibited.

### 3. BRAKES & SUSPENSION

3.1 BRAKES on each car, regardless of class, must be in good working order with two-wheel hydraulic brakes on rear wheels as a minimum requirement. Four-wheel hydraulic brakes are recommended, or as specified under Class Requirements. Lightening of backing plates, brake drums, and/or brake shoes by cutting or trimming metal prohibited. Cooling or lightening holes may not be drilled in cast iron disc brake rotors. Aluminum rotors prohibited. If hand brake is used, brake handle must be inside car body or driver compartment and connected to footbrake. Hand controls for the physically challenged permitted.

Brake lines must be steel, steel braided, or DOT (DIN/ISO) approved flexible and routed outside the frame rail, or enclosed in a 16-inch (406 mm) length of 1/8-inch (3.2 mm) minimum wall thickness steel tubing securely mounted where line(s) pass the flywheel bell housing area and not routed in the driveline tunnel.

All brake lines may be attached to chassis as per OEM style; hoses may have mounting brackets. All brake lines on any rear-engine car must be protected inside of tubing or be braided steel construction where they pass the engine. All pedals must be covered with non-skid material.

Automated and/or secondary braking systems prohibited; 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. Mechanical anti-lock braking systems (ABS) permitted in all classes. If brake system includes a differential pressure switch, line-loc installed on front brakes must have solenoid installed after the differential switch. All line-locks (electric or hydraulic) must be self-returning to normal brake operating mode.

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

3.3 STEERING Each car's steering system must be secure and free of defects. All welded parts must have additional visible reinforcements.

Only conventional automotive steering systems are permitted; flexible steering shafts prohibited. Rear wheel steering prohibited, unless vehicle was originally manufactured with an OEM system. An OEM system may not be modified, altered, or used in any manner inconsistent with manufacturer's specifications. All rod ends must be a minimum of 3/8-inch (10 mm) shank diameter and must be installed with flat washers to prevent bearing pull-out (see drawing 7). All steering boxes, sectors, and

shafts must be mounted to the frame or suitable cross member and cannot be mounted in any case to the bell housing and/or bell housing adapter shield, or motor plate or firewall. It is recommended that they be mounted to the rear of same. A secondary steering shaft stop must be installed to prevent long steering shaft from injuring driver in case of frontal impact (i.e., collar or U-joint pinned at cross member, bracket, etc.). Commercially available quick-disconnect steering wheels permitted (except as noted in Class Requirements); adapter must be welded to shaft. All fasteners must be of a positive nature; no roll or pressed pins, no ball-lock pins, set screws, etc. FIA accepted swing-away steering column permitted with removable steering wheel.

3.4 SUSPENSION All cars must have a full suspension system of the type produced by an automobile manufacturer (i.e., springs, torsion bars, etc.). Rigid-mount rear axles are permitted when so indicated in Class Requirements. All rod ends must be installed with flat washers of sufficient outside diameter to prevent bearing pull-out. Hollow rod ends are prohibited. Three-wheel vehicles are not eligible for competition in any class. Any front suspension using a beam or tubular axle must have radius rods attached to frame.

3.5 TRACTION BAR ROD ENDS Minimum requirement for rod ends on the front of all ladder-type traction bars is 3/4-inch (19 mm) steel. A rod end strap to keep ladder bar secured in event of rod end failure mandatory in all classes. All traction devices that are not attached at front (i.e., slapper bars, etc.) must have a U-bolt or strap to prevent them from coming in contact with track.

3.6 WHEELIE BARS All wheelie bars, regardless of class, must have non-metallic wheels (i.e., rubber, plastic). Wheelie-bar wheels must turn freely at starting line, any preload prohibited. Wheelie bars must be fixed. Hydraulics, pneumatics, electronics, etc. or any adjustment or movement during run prohibited. Using wheelie-bar wheels as "fifth wheel" sensing device prohibited. Drawings 6 and 7.

#### 4. FRAME

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

4.2 BALLAST Any material used for the purpose of adding to a car's total weight must be permanently attached to the car's structure and must not extend behind or in front of the car's body or above the rear tires. No liquid or loose ballast permitted (i.e., water, sandbags, rocks, shot bags, metal weights, etc.).

4.3 DEFLECTOR PLATE All rear-engine cars must have a deflector plate to protect driver and fuel tank from engine. Plates must be made of minimum 1/8-inch (3.2 mm) aluminium or .060-inch (1.52 mm) steel or titanium. Must extend from top blower pulley to bottom pulley and be at least 1-inch (25.4 mm) wider

than each pulley for supercharged cars. Other cars must have plate covering from shoulder height to bottom of chassis. On any enclosed engine/ driver configuration, a full bulkhead must be installed completely sealing the driver from the engine. Minimum attachment for any plate is four (4) 5/16-inch (8 mm), Grade 5 (or Class 8.8) bolts. See 1:1 COOLING SYSTEM for additional requirements. Drawing 9

4.4 FRAMES Grinding of welds prohibited. All butt welds must have visible reinforcement (i.e., sleeve and rosette welds). Pressurization of frame rails, roll bar, or roll cage in lieu of air bottles is prohibited. Visible reinforcement around any hole in any SFI Spec chassis (not just the roll cage) mandatory. Reinforcement must be of at least the same cross sectional area as the hole, at least .049-inch (1.25 mm) thick chrome moly and completely welded around the outside. See also 4.10 ROLL BARS and 4.11 ROLL CAGE. Drawing 9A.

4.5 GROUND CLEARANCE Minimum 2-inches (51 mm) from front of car to 12-inches (304.8 mm) behind centerline of front axle; 2inches (51 mm) for remainder of car, except oil pan and exhaust headers where permitted. Devices used for anti-rotation purposes (i.e., wheelie bars) are exempt from the two-inch (51 mm) clearance rule. The installation of a “beam breaker” in front of the body is restricted to extending no farther forward than the body or bumper and must also satisfy the 2-inch (51mm) ground clearance requirement.

4.6 NON-DESTRUCTIVE TEST CERTIFICATES Non-destructive test inspection certificates may be required by the technical scrutineer on any altered or welded parts.

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

All electrical, instrumentation, etc. connection boxes (e.g., exhaust temperature sensor/data recorder boxes and similar components) must either be securely (no wire ties, hose clamps, Velcro, etc.) attached to the engine, frame, bell housing, etc. OR be constrained by a .060-inch (1.52 mm) diameter stainless-steel multi-strand cable/lanyard such that it will not drop to the ground or contact a tire if any of the connecting wires break, OR be located such that they will fall into the body/belly pan if any of the connecting wires break.

4.8 PARACHUTES If outlined in Class Requirements, mandatory to have a braking parachute produced by a recognized drag racing parachute manufacturer. Dual parachutes are mandatory for all cars running 200 mph (312.87 km/h) or more. Scrutineers may observe the proper operation of the parachute and inspect for worn or frayed shroud lines, ripped or dirty canopies, and worn or ragged pilot chutes. Parachute cable housings should be mounted solidly to frame tube or other suitable member no farther back than 1-inch (25.4 mm) from the release handle. If automated push-button release system is used, driver must also be able to use handle to manually release the parachute(s). The release housing must be attached within 12-inches (304.8 mm) of the parachute pack and in a manner, that will allow the inner cable to release the parachute. When supercharged and/or using nitromethane as a fuel, it is mandatory that the parachute pack and unpacked shroud lines be protected with fire-resistant material from the mounting point to the pack. Parachutes must have their own independent mounting with sleeved 3/8-inch (10 mm) minimum steel bolts or steel pins required for all applications. Shroud line(s) mounting brackets must be constructed of minimum .090-inch steel (2.3 mm).

The use of ball-lock pins for parachute mounting prohibited. Dual parachute applications require separate shroud-line mounting points for each parachute system. Drawings 10 and 11.

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

4.10 ROLL BARS All roll bars must be within 6-inches (152 mm) of the rear, or side, of the driver's head, extend in height at least 3-inches (76 mm) above the driver's helmet with driver in normal driving position, and be at least as wide as the driver's shoulders or within 1 inch (25.4 mm) of the driver's door.

Roll bar must be adequately supported or cross-braced to prevent forward or lateral collapse of roll bar. Rear braces must be of the same diameter and wall thickness as the roll bar and intersect with the roll bar at a point not more than 5-inches (127 mm) from the top of the roll bar. Crossbar and rear braces must be welded to main hoop. Sidebar must be included on driver's side. The side bar must pass the driver at a point midway between the shoulder and elbow.

Swing out- sidebar permitted. All roll bars must have in their construction a cross bar for seat bracing and as the shoulder harness attachment point; cross bar must be installed no more than 4- inches (101.6 mm) below, and not above, the driver's shoulders or to side bar. All vehicles with OEM frame must have roll bar welded or bolted to frame; installation of frame connectors on unibody cars does not constitute a frame and therefore it is not necessary to have the roll bar attached to the frame. Unibody cars with stock floor and firewall (wheel tubs permitted) may attach roll bar with 6-inch x 6-inch x .125-inch (152 mm x 152 mm x 3, 2 mm) steel plates on top and bottom of floor bolted together with at least four (4) 3/8-inch (9.53 mm) bolts and nuts, or weld main hoop to rocker sill area with .125-inch (3.2 mm)

reinforcing plates, with plates welded completely. Also, the roll bar may be welded to frame connectors that are fully welded in place and are 1 5/8 inch x .118-inch (41.3 mm x 3 mm) MS or .083-inch (2.1 mm) CM round and/or 2-inch x 2-inch x .058 (50.8 mm x 50.8 mm x 1.48 mm) MS or CM rectangular.

All 4130 chrome moly tube welding must be done by approved TIG Heliarc process; mild steel (or ST51) welding must be approved MIG wire feed or approved TIG heliarc process. Welding must be free of slag and porosity. Any grinding of welds prohibited. See illustration (Drawing 12).

Roll bar must be padded anywhere driver's helmet may contact it while in driving position. Adequate padding must have minimum 1/4-inch (6.35 mm) compression or meet SFI Spec 45.1.

#### 4.11

**ROLL CAGE** All cage structures must be designed to protect the driver from any angle, 360-degrees. All 4130-chrome moly tube welding must be done by approved TIG heliarc process; mild steel tube welding must be approved MIG wire feed or TIG heliarc process. Welding must be free of slag and porosity. Any grinding of welds prohibited. Plating of chassis prohibited for all cars manufactured after 1/1/2003, unless otherwise noted in Class Requirements; painting permitted. Additionally, roll cage must be padded anywhere the driver's helmet may contact it while in the driving position. Any car running 180 mph (305 km/h) or faster, padding must meet SFI Spec 45.1. See illustrations.

**Open bodied cars (see illustrations):** When driver is in driving position in an open-bodied car, roll cage must be at least 3-inches (76 mm) in front of helmet. Cars without cross member above driver's legs must have a strap or device to prevent legs from protruding outside chassis. On front-engine dragster, seat uprights and back braces must be arranged such that a flat surface passed over any two adjacent members will not contact the driver's seat or containment. Additional uprights, max 30-degrees from vertical, must be added until these criteria satisfied. When non-vertical upright or "running W" side bay designs are used (i.e., uprights installed at greater than 30-degrees from vertical), adjacent roll cage diagonals must be the same size as that required for the upright. Motor mount and/or rear end uprights (except rear-engine dragster) may be rectangular tubing, 1 3/4-inch x 1-inch x .058 (44.5 mm x 25.4 mm x 1.47 mm) CM or MS minimum. For all vehicles required to meet SFI Specification 2.1A, 2.2B 2.2C, 2.3P, 2.4B 2.4C, 2.5B 2.5C, 2.6A, 2.7B 2.7C, 10.1E, 10.4 and 10.5 the upper roll-cage members must have head/helmet guards of one-inch (25.4 mm) by .058-inch (1.47 mm) round tube on all new chassis or at scheduled recertification.

**Full Bodied cars (see illustrations):** On full-bodied cars with driver in driving position, helmet must be in front of main hoop. If helmet is behind or under main hoop, additional tubing same size and thickness as roll cage must be added to protect driver. Main hoop may be laid back or forward, but driver must be

encapsulated within the required roll-cage components. On unibody cars with stock floor and firewall (wheel tubs permitted), the roll cage may be bolted or welded to the floor/rocker box via 6-inch x 6-inch x .125-inch (152,4 x 152,4 x 3.2 mm) steel plates similar to the roll-bar attachment requirements of paragraph 4.10. Unless

attaching to OEM floor or frame, the minimum requirements for a frame member or fully welded in place frame connectors on unibody to which a roll-cage member is attached are 1 5/8-inch (41.3 mm) x .118-inch (3.0 mm) MS or .083-inch (2.11 mm) CM round and/or 2-inch x 2-inch x .058 (51 mm x 51 mm x 1.47 mm) MS or CM rectangular.

All cage structures must have in their construction cross bar for seat bracing and as the shoulder harness attachment point; cross bar must be installed no more than 4 inches (101.6 mm) below, and not above, the driver's shoulders, or to side bar. All required rear braces must be installed at a minimum angle of 30-degrees from vertical, and must be welded in. Side bar must pass the driver at a point midway between the shoulder and elbow.

Unless an OEM frame rail is located below and outside of driver's legs (i.e., '55 Chevy, '65 Corvette, etc.) a rocker or sill bar, minimum 1 5/8-inch (41.3 mm) x .083 (2.11 mm) CM or .118 (3.0 mm) MS or 2-inch x 2-inch x .058-inch (51 mm x 51 mm x 1.47 mm) CM or MS rectangular, is mandatory in any car with a modified floor or rocker box within the roll cage uprights (excluding six square feet of transmission maintenance opening). Rocker bar must be installed below and outside of driver's legs and must tie into the main hoop, the forward hoop, frame, frame extension or side diagonal. Rocker bar may not tie into swing out side bar support. If rocker bar ties into side diagonal more than 5 inches (127 mm) (edge to edge) from forward roll cage support or main hoop, a 1 5/8-inch x .083 (41.3 mm x 2.11 mm) CM or .118 (3.0 mm) MS brace/gusset is mandatory between the diagonal and forward roll cage support or main hoop.

Swing out side bar permitted on OEM full-bodied car 8.50 E.T. and slower. The following requirements (a through d) are enforced on all cars: a. 1 5/8-inch (41.3 mm) O.D. x .083-inch (2.11 mm) CM or .118-inch (3.0 mm) MS minimum. Bolts/pins must be 3/8-inch (10 mm) diameter steel, minimum and in, double shear at both ends.

b. Male or female clevis(s) permitted. Male clevis must use two minimum 1/8-inch (3.2 mm) thick brackets (CM or MS) welded to each roll cage upright; female must use minimum 1/4-inch (6.35 mm) thick bracket (CM or MS) welded to each roll cage upright. Pins must be within 8- inches (204 mm) of the vertical portion of both the forward and main hoops. A half cup backing device must be welded to the vertical portion of the main hoop (inward side) or the upper end of the swing out bar (outward side), minimum .118-inch (3.0 mm) wall (CM or MS) extending at least 1 5/8-inches (41 mm) past the center of the pins. A clevis assembly using a minimum .350-inch (8.9 mm) thick male component and two

minimum .175- inch (4.45 mm) thick female components may use a 1/2- inch (12.7 mm) diameter Grade 5 bolt, and does not require a half cup backing device.

c. Sliding sleeves of 1 3/8-inch (35 mm) x .083-inch (2.1 mm) CM or .118-inch (3.0 mm) MS, with minimum 2-inch (51 mm) engagement, are permitted in lieu of the upper pin/cup.

d. All bolt/pin holes in the swing out bar must have at least one hole diameter of material around the outside of the hole.

For chassis certification, and on all cars requiring a roll cage: On all cars requiring a roll cage, if the OEM firewall has been modified (in excess of 1 square foot (929 cm<sup>2</sup>) for transmission removal, not including bolted in components) a lower windshield or dash bar of 1 1/4 x .058-inch (31.8 mm x 1.47 mm) 4130 chrome moly or 1 1/4 x .118-inch (31.8 x 3.0 mm) mild steel is mandatory connecting the forward cage supports.

“D” bar installation for full bodied cars:

For front-wheel-drive cars, with complete OEM floor (from the firewall to the rear of the trunk) and rocker/sill boxes, the 1 1/4-inch x .058-inch (31.8 mm x 1.47 mm) CM (.118-inch [3.02 mm] MS) “D” bars (when required; i.e., when the main hoop is not welded to the frame) may be welded to a 1 5/8- inch x .083-inch (41.3 mm x 2.11 mm) CM (.118-inch) (3.0 mm MS) cross member welded to the rocker/sill box via conventional 6-inch x 6-inch x 1/8-inch (152.4 mm x 152.4 mm x 3.2 mm) thick plates. For rear-wheel-drive cars, with neither a frame nor sub-frame connectors, but with complete OEM floor (from the firewall to the rear of the trunk; exception: the rear inner wheel wells may be tubed with steel or aluminum), rocker/sill boxes, the 1 1/4-inch x .058-inch (32 mm x 1 mm) CM (or .118-inch [3.02 mm] MS) “D” bars may be welded to conventional 6-inch x 6-inch x 1/8-inch (152 mm x 152 mm x 3.2 mm) plates attached to the driveshaft tunnel.

4.12 WHEELBASE Minimum 85-inches (2159 mm), unless car has original engine in original location and is shorter than original, or noted in class requirements. Maximum wheelbase variation from left to right is 1-inch (25.4 mm), unless otherwise noted in Class Requirements.

## 5. TIRES & WHEELS

5.1 TIRES will be visually checked for condition, pressure, etc. and must be considered free of defects by the scrutineer prior to any run. All street tires must have a minimum of 1/16-inch (1.6 mm) tread depth.

Temporary spares, space saver spares, farm implement or trailer tires prohibited.

Physically altering (e.g. lightening) a tire in any manner is prohibited unless such treatment or alteration is performed by the original tire manufacturer.

5.2 WHEELS The use of "spinner" style wheels or any wheel design that incorporates movable pieces while vehicle is in motion or stationary are prohibited. Hubcaps must be removed for inspectors, no loose lugs, cracked wheels, worn or oversize lug holes, and condition of spindles, axle nuts, cotter pins, etc. in bad condition. Each car in competition must be

equipped with automotive-type wheels with a minimum 12-inches (304.8 mm) of diameter unless Class Requirements stipulate otherwise. Lightweight automotive wire wheels must be equipped with .100-inch (2.54 mm) minimum diameter steel spokes, properly cross-laced to provide maximum strength. All spoke holes in rim and hub must be laced. Omissions to lighten wheels prohibited. The thread engagement on all wheel studs to the lug nut, or lug bolts to wheel hubs, must be equivalent to or greater than the diameter of the stud/bolt. Length of the stud/ bolt does not determine permissibility. (Example: A 7/16-inch stud must be thoroughly engaged through the threads in the hex portion of the lug a minimum of 7/16-inch.)

Wheel spacer permitted. Spacer to be either hub-centric or lug centric and must fit with minimal clearance to retain concentricity. The wheel spacer must not reduce the minimum allowable thread engagement below the limits established by fastener diameter.

Maximum rim width on any car: 16 inches. No rear wheel discs or covers permitted in any category.

## 6. INTERIOR

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

6.2 UPHOLSTERY, SEATS The driver's seat of any car in competition must be constructed, braced, mounted, and upholstered so that it will give full back and shoulder support. For non-OEM: the driver's seat must be supported on the bottom and back by the frame or cross member. Except as noted in SFI Specifications, seats must be bolted with four bolts (and nuts and washers) on the bottom and one bolt in the rear into cross-bar; all bolts must go into frame or cross braces. Ball-lock pins for seat attachment prohibited. All seats must be upholstered, or as noted under Class or SFI Requirements. All front-engine, open-bodied, supercharged or turbocharged (gasoline or methanol) cars running 7.49 seconds and quicker must have a flame retardant-material-upholstered seat. Properly braced, framed, supported, and constructed seats of aluminum, fiberglass or double-layer poly (accessory seats) or carbon fiber are permitted. Single-layer fiberglass seats must have steel tube framework, 1/2-inch (12.7 mm) minimum outside diameter, for support. Aftermarket aluminum seats must have reinforced head rest.

Magnesium seats prohibited. Drawing 19

### 6.3 WINDOW NET

An SFI 27.1 window net is mandatory on any full-bodied car running 7.49 seconds or quicker. For full-bodied cars run 7.50 to 9.99 or if vehicle runs 135 mph (217 km/h) or faster a ribbon-type or SFI 27.1 mesh-type window net is mandatory if not equipped with window glass or replacement material. SFI 27.1 window net, when required, must be updated at two-year intervals from the date of manufacturer.

Window net must be securely mounted on the inside of the roll cage, with the permanent attachment at the bottom. All attachment points must be designed to protect the driver and avoid contact with track surface or guard wall. Eyelet clips, dog leash hardware, hose clamps, etc. prohibited.

Penetration of webbing, except as performed as per manufacturer's instructions, is prohibited. Any other modification to net must be performed by manufacturer.

## 7. BODY

7.1 AIR FOILS, WINGS Air foils, canards, wings, and spoilers other than original factory equipment permitted. A positive locking device to prevent movement mandatory. No part to be within 6-inches (152 mm) of rear tires.

Spring-loaded spoilers, wings, or canards prohibited. Adjustment of air foils, wings, or spoilers during run prohibited. NOTE: A spoiler is mounted directly to the deck lid of the vehicle, such that air only passes on the top side of the device. An air foil or wing is mounted on stands, struts, or pedestals, such that air passes over the top and underneath the device. Minimum fastener size on all front wings, canards, etc. is ¼-inch (6.35 mm). Ball-lock pins prohibited.

For all open wheel/body cars the rear wing may be fully mounted to the roll cage or frame structure only via plates and/or short brackets; maximum 6 inches (152.4 mm) center-to-center between the upper (wing tab) and lower (roll cage tab) bolts. Tube type or extended wing stands are prohibited when mounting wings to any components of the driver's compartment of any SFI specification roll cage.

7.2 COMPETITION NUMBERS Any car competing at JAMWEST SPEEDWAY events must display the driver's name. Name must be displayed on front windshield. Class designation decals supplied by JAMWEST SPEEDWAY. The use of shoe polish in any form is prohibited. Drawing 20.

7.3 FENDERS All vehicles in all classes must have re-rolled or beaded edges on altered fenders. Flaring or spreading external fender lines permitted.

#### 7.4 FIREWALLS

Each car in competition must be equipped with an OEM or minimum .032-inch (.8 mm) aluminum or .024-inch (.6 mm) steel firewall, extending from side to side of the body and from the top of the engine compartment's upper seal (hood, cowl, or deck) to the bottom of the floor and/or belly pan. Firewall must provide a bulkhead between the engine and/or fuel tank and driver compartment. All holes in firewall must be sealed with aluminum or steel. Use of magnesium prohibited.

7.5 FLOOR All cars without floors must be equipped with floor pans made of steel or aluminum that must extend the full length and width of the driver compartment to the rear of the driver's seat. Cars equipped with floors or belly pans made of fiberglass or other breakable material must have metal subfloors. In all cars with OEM fiberglass floors, a cross member (minimum 2 inches x 2 inches (51mm x 51 mm), .083inch (2.11 mm) wall thickness square tubing) must be installed between frame rails for proper driver's seat, seat belt, shoulder harness, and crotch strap installation. Belly pans and subfloors enclosing engine or driver compartment must contain suitable drain holes so that liquids and foreign matter cannot collect, thus creating a fire hazard. Minimum .032-inch (.8 mm) aluminum or .024-inch (.6 mm) steel. Use of magnesium prohibited.

7.6 HOOD SCOOP On full-bodied cars, hood scoop opening may not extend more than 11 inches (279.4 mm) above height of original hood surface as measured from the top of the opening directly

down to the hood surface. On open-bodied, front-engine cars, scoop may not extend more than 11 inches (279.4 mm) above height of carburetor top. Multiple scoop openings permitted.

## 7.7

**WINDSCREEN** On open-bodied cars, or any other class car without a windshield, a metal or other fireproof deflector must be installed. Minimum size on Street Roadster and Altered cars is 5 inches x 12 inches (127 mm x 304.8 mm). The deflector should divert wind, liquids, and foreign matter over the driver's head, be securely mounted, and installed in such a manner that it does not obstruct the driver's frontal view in any way.

**7.8 WINDSHIELD, WINDOWS** Windshields and/or windows on all cars, when called for under Class Requirements, must be of safety glass, Plexiglas, Lexan (Polycarbonate), or other shatter-proof material, minimum 1/8-(3.2 mm) inch thick. The use of any temporary or permanent shielding, including paint, that obstructs the driver's vision (i.e., blinders, staging aids) and that is attached to the helmet, window or windshield is prohibited. Re: helmet visor, See General Regulations 10.7.

## 8. ELECTRICAL / CONTROLS

### 8.1 BATTERIES

All batteries must be securely mounted and may be relocated into the driver or passenger compartments, provided that a sealed box is used, properly mounted. Rear firewall of .024-inch (.6 mm) steel or .032-inch (.8mm) aluminum (including package tray) required when battery is relocated in trunk. In lieu of rear firewall, battery may be located in a sealed .024-inch (.6 mm) steel, .032-inch (.8 mm) aluminum, or accepted poly box. If sealed box is used in lieu of rear firewall, box may not be used to secure battery and must be vented outside of body. Strapping tape prohibited.

A maximum of two (2) automobile batteries is permitted.

Metal battery hold-down straps mandatory. Hold-down bolts must be minimum 3/8-inch (10 mm) if battery is relocated from stock and other than stock hold-downs are used ("J" hooks prohibited or must have open end welded shut.).

8.3 IGNITION Each car in competition must have a positive-action on/off switch, capable of de-energizing the entire ignition system, in good working order, located within easy reach of the driver. "Momentary contact" switch prohibited. Magneto "kill button"- type switches are prohibited.

The use of any programmable multi-point rev limiter and/or a rate-of-acceleration rpm limiter, either by themselves (i.e., MSD 7561, MSD 7761) or integrated into the ignition system (i.e., MSD 7531), is permitted.

8.4 MASTER CUTOFF Mandatory when battery is relocated, or as outlined in Class Requirements. An electrical power cut-off switch (one only) must be easily accessible from outside the car body. This cut-off switch must be connected to the positive side of the electrical system and must stop all electrical functions including magneto ignition. The external control switch for this cut-off switch will be clearly indicated by a red flash inside a white-edged blue triangle with a base of at least 12 cm (see drawing 25). The positions must be clearly indicated with the word "OFF." If switch is "push/pull" type, "push" must be the action for shutting off the electrical system, "pull" to turn it on. Any rods or cables used to activate the switch must be minimum 1/8-inch (3.2 mm) diameter. Plastic or keyed switches permitted. Switches and/or controls must be located behind rear wheels on rear-engine dragsters.

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

8.6 TAILLIGHTS All vehicles in must have a minimum requirement one working taillight. Strobe, flashing, high intensity, or other type lights that may distract other drivers are prohibited.

8.7 SWITCHES & BUTTONS All switches and/or buttons must be standard, mechanical connection type.

8.8 SHIFT LIGHT Shift light permitted.

9. SUPPORT GROUP

9.1 COMPUTERS Permitted. (See 9.2 DATA RECORDERS).

During competition, a portable computer (e.g., laptop, PDA, Palm Pilot, programmer, etc.) must be securely mounted when located in driver's compartment at any point beyond the staging area ready line. All functions or values must be pre-set prior to this point.

Timed or rpm-activated shifters and the like permitted, but all automated functions must be pre-set before the run. Timer may display only timer amount in; analog or digital display permitted.

9.2 DATA RECORDERS Permitted. All lines sensing flow, pressure, etc. of fuel or oil must be metallic or steel braided.

Data may only be reviewed (printout, replay, etc.) after the run.

9.3 FIRE EXTINGUISHER / SUPPRESSION SYSTEM On-board fire extinguisher system must be installed per manufacturer's specifications with all gauges clearly visible; viewing window(s) may be required for some applications. It is recommended that each contestant and/or his or her crew have a loaded, serviceable fire extinguisher and a fire blanket in their possession, carried in the tow vehicle, race car, or otherwise available for immediate use.

Dry chemical or CO<sub>2</sub>-type extinguishers, 2 1/2-pound (1.13 kg) minimum size, are recommended. If a hand-held fire extinguisher is carried on board the vehicle, it must be mounted in a secure manner; flip-open type clamps prohibited.

Fire extinguishing system must meet SFI Spec 17.1 or FIA Standard, Technical List N°16 Extinguisher systems and Technical List N°06 AFFF extinguishing products and installed and utilized per manufacturer's installation requirements. All front-engine, open-bodied supercharged or turbocharged (gasoline or methanol) cars running 7.49 seconds or quicker must be equipped with an SFI 17.1 20pound (9.1 kg) fire system.

For all other vehicles, on-board fire extinguisher systems must be manually controlled and mounted per manufacturer's specifications with the primary nozzle(s) directed in an attempt to protect the driver. Total Flooding Agents (Feasible for Use in Occupied Areas) may be used (see Appendix J to the Sporting Code, art. 253.7.3.2 and Technical List n6).

Bottles and lines must be mounted above the bottom of the adjacent frame rails. Fire suppression bottle activation cables must be installed inside frame rail where cables pass engine/bell housing area.

Bottles must be CE or DOT approved and permanently mounted (no hose clamps or tie wraps). In the case of more than one bottle, each bottle must have its own distribution tubing and nozzles. The use of bottles, nozzles or tubing other than that recommended by the manufacturer is prohibited. Nozzle placement is extremely important; two nozzles are placed at the front of the engine, one on each side, and one nozzle is located in the driver compartment near the steering column, minimum. Upon activation of the system, the contents of the bottle(s) must be totally discharged; partial-discharge systems prohibited. The bottles must be mounted in such a manner that should an explosion or failure of any mechanical component of the vehicle occur, the bottles will be protected from flying parts. Also, the bottles must be mounted completely above the lower frame rails of the car. When installed in/on a race car, must be mounted in a secure manner; use of flip-open-type clamps, hose clamps, tie wraps, snaps, etc. prohibited. They should be protected from excessive temperature and mounted rigidly to the vehicle. Remote cables must be metallic (plastic or plastic-wrapped cables prohibited) and installed so they are protected in the event of an upset or collision. Follow the manufacturer's recommendations regarding installation, especially on bend radius and protection from crimping or kinking.

All fire suppression systems must use metal lines, steel or aluminum distribution nozzles, and must be equipped with a pressure gauge. All bottles must be identified with a gross loaded weight figure. It is the responsibility of the competitor to weigh the bottle prior to each event.

If there is an external lever for activating the extinguishers, this must be indicated with a mark which complies with drawing n24 and which is placed near this lever.

9.4 GENERATORS All generators, air compressors, etc. that are powered by an internal combustion engine must have the exhaust directed away and clear of other people's pits.

9.5 JACKS & JACKSTANDS No work may be done under any car in the pit area while the car is supported by only one jack. Additional safety devices such as jack stands are mandatory to provide additional protection in the event of jack failure. Failure to observe this rule is grounds for immediate exclusion.

Dragster rails must use cradles/jack stand devices that attach to the frame (conventional jack stands prohibited) when working on and/or running engine in pits with vehicle in a raised position. Jack stand devices must be constructed as to provide a minimum ground clearance of 7-inches (178 mm) as measured from the ground to the outer diameter limit of the rear tires.

9.6 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.

9.8 PRESSURIZED BOTTLES All pressurized bottles (i.e., air, CO2, etc.) Used for air shifters clutches, etc. Must meet, and be engraved as meeting, CE or DOT-1800 pound (124 bar) minimum spec. All bottles must be securely mounted (hose clamps and/or tie wraps prohibited) above the lower frame rail.

Any pressurized bottle used for pneumatic operation must be filled with compressed air, nitrogen, or CO2. All other materials prohibited.

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

9.10 TELEMETRY DEVICES Telemetry transmission permitted.

9.11 TRACTION CONTROL Permitted A traction-control device is any unit or system that uses live data to control functions of the vehicle, such as tire slip, which are not controlled by the driver. See 9.10 Telemetry devices, 8.2 Delay boxes/devices, 8.3 Ignition, 9.1 Computer.

9.12 TOW VEHICLE Limit of six (6) crewmembers in push/tow vehicle. Crewmembers must be inside cab or completely inside bed or truck, not to be seated on tailgate, standing on running boards, or otherwise not completely inside vehicle.

Generators or other external power supplies, extension cords, support equipment other than the tow vehicle, etc. are prohibited outside the pit area.

Once a race vehicle leaves the pit, it must be in race-ready condition, and the only support equipment permitted is the tow or push vehicle until the vehicle returns to the assigned pit area.

9.13 TWO-WAY RADIO COMMUNICATION The use of two-way radios for the purpose of voice communication between driver and crew is acceptable in all classes. When radio is mounted in driver's compartment, must be secured in holder by some type of strap or device when car is moving.

9.14 WARM-UPS It is mandatory that a driver be seated in the car in the normal driving position anytime the engine is running, unless coupler or driveline is removed from vehicle. The practice of transbrake testing, converter stalls, line-loc testing, and/or transmission warming is prohibited in all classes, in all areas of

the event except in starting-line approach areas beyond staging, or unless vehicle is on jack stands. Noncompliance is grounds for exclusion.

9.15 CAMERAS Permitted. Must be securely attached to the vehicle with appropriate fasteners.

## 10. DRIVER (ALSO REFER TO FIA INTERNATIONAL SPORTING CODE, APPENDIX L)

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

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

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

10.4 CREDENTIALS Each driver must have a valid Jamaican Driver's License and/or JMMC Competition License subject to inspection by officials at any time.

Drivers of the following type vehicles are mandated to have a valid JMMC Competition License.

Type A Over 125"	Type B Up to 125"	Type C Bodied Class 3	ET 6.0-7.49	ET 6.0-7.49	ET 6.0-7.49
Class 4	ET 7.50-9.99	ET 7.50-9.99	-		

Physical forms and license applications are available from the JMMC.

The holder of a license in a particular class may race in slower classes of the same type (for example, a Type A Class/3 license holder is authorized to compete in A/4). Moreover, any other JMMC Competition License may replace a Class 4 drag racing license.

#### 10.5 DRIVER RESTRAINT SYSTEMS

A quick-release driver restraint system meeting SFI Spec 16.1, 16.5 or FIA 8853/98 standard is mandatory in all cars in competition required by the rules to have a roll bar or a roll cage. (Permitted in all other classes).

Driver restraint system must be clearly labelled as meeting FIA 8853/98 standard, SFI Spec 16.1 or SFI Spec 16.5. FIA 8853/98 standard expires period is five years after the year of manufacture. SFI Spec 16.1 or 16.5 must be dated by manufacturer. SFI Spec 16.1 or 16.5 three-inch (76 mm) wide shoulder harness straps folded over and sewn to be two-inches (51 mm) wide by the original manufacturer in order to fit into head and neck restraint lips/channels are acceptable; SFI 16.1 two-inch (51 mm) wide shoulder harness straps are not permitted. SFI Spec System must be updated at two-year intervals from date of manufacture. All seat-belt and shoulder harness hardware must be originally designed to be used with each other and produced by the same manufacturer. For harness installation, see illustration. (Drawing 21).

Cars using OEM or OEM-type seat may route crotch strap in front of seat instead of through seat. It is mandatory that units release all attachment points (five (5), six (6), or seven (7) if applicable) in one action. When arm restraints are worn with a restraint system that utilizes a "latch lever," a protective cover must be installed to prevent arm restraint from accidentally releasing the latch lever. All harness sections must be mounted to the frame, cross member, or reinforced mounting, and installed to limit driver's body travel both upward and forward. Seat belts may not be wrapped around lower frame rails. Under no circumstances are bolts inserted through belt webbing acceptable for mounting. Check manufacturer's instructions. SFI Spec 16.1 or 16.5 Y-type belts prohibited.

10.6 HEAD PROTECTOR In any car where a roll bar or roll cage is installed, a padded head protector must be provided at the back of the driver's head and constructed in an attempt to prevent whiplash upon impact. The roll bar or cage must be padded wherever it may come in contact with the driver's helmet. Adequate padding should permit minimum ¼-inch (6.35 mm) compression or meet SFI Spec 45.1. The use of weather stripping and similar thin or low impact resisting materials is prohibited. A padded roll bar or cage alone is not acceptable as a padded head protector unless it is within 4-inches (102 mm) of the driver's helmet. A seat that incorporates a reinforced head rest is accepted.

10.7 HELMET & GOGGLES Only helmets in conformity with the standards listed on the current FIA Technical List n\*25 are accepted.

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

Helmet must remain as manufactured, except for paint scheme/graphics and permitted nonstructural driver modifications to helmet visor as set forth below.

Taping or similar modifications to the helmet visor made by the driver that reduce the driver's field of vision, and are deemed safe by driver in the driver's judgment, is allowed at this time so long as the driver can demonstrate to technical inspectors that the purpose of the modification is to reduce distraction in the driver's field of vision. By using such a modification to the helmet visor, the driver acknowledges and agrees that the driver deems such modification safe in the driver's judgment consistent with the driver's obligations. See Class Requirements.

Drivers of any open-bodied car wearing an "open face" helmet must wear protective goggles. Modifications to helmet/visor are prohibited. All helmets must have the appropriate certification sticker affixed inside the helmet.

Helmet Label Expires

Snell SA2005 1/1/2017

Snell SA2010 1/1/2022

Snell SAH2010 1/1/2022

Snell SA2005 1/1/2017

Snell SA2010 1/1/2022

Snell SAH2010	1/1/2022
Snell SA2015	1/1/2027
Snell SA2015	1/1/2027
Snell SAH2015	1/1/2027
SFI 31.1/2005	1/1/2017
Snell SAH2015	1/1/2027
SFI 31.1/2005	1/1/2017
SFI 41.1/2005	1/1/2017
SFI 41.1/2005	1/1/2017
SFI 31.1/2010	1/1/2022
SFI 31.1/2010	1/1/2022
SFI 41.1/2010	1/1/2022
SFI 41.1/2010	1/1/2022
SFI 31.1/2015	1/1/2027
SFI 31.1/2015	1/1/2027

SFI 41.1/2015 1/1/2027

SFI 41.1/2015 1/1/2027

10.8 NECK COLLAR/HEAD AND NECK RESTRAINT DEVICE/ SYSTEM Must be commercially produced neck collar designated for racing. Two different types of collars are commercially available – a full 360-degree “donut” type or a pull-together “horseshoe” type. – see Class Requirements for type specified. Modification according to manufacturer’s recommendations, to fit helmet and driver’s neck/shoulder spacing, permitted. Must be worn as per manufacturer’s recommendations. Must meet SFI Spec 3.3 as per class rules.

A head and neck restraint device/system is mandatory in any vehicle running 7.49 or quicker and any vehicle running 200 mph (320 km/h) or faster.

When using a head and neck restraint device/system, at all times that the driver is in the race vehicle, from the ready line until the vehicle is on the return road, driver must properly utilize head and neck restraint device/system, including connecting the helmet as required for full functionality of the device. The device/system must meet FIA homologated devices or SFI Spec 38.1 and must display a valid label accordingly. The head and neck restraint device/system, when connected, must conform to the manufacturer’s mounting instructions, and it must be configured, maintained, and used in accordance with the manufacturer’s instructions. A head and neck restraint device/system may be used with or without a neck collar.

10.9 OCCUPANTS No more than one person is permitted in any car during any run, except one (1) co-driver permitted in 14-second and slower cars; co-driver must be a minimum of 16 years old. Any time a car is started, whether in the pits, staging lanes, with self-starter, or anywhere else on the race facility, a competent driver must be in the driver’s seat unless coupler or driveline is removed. Non-compliance is grounds for exclusion.

## 10.10

**PROTECTIVE CLOTHING** Drivers are required to have as a minimum requirement, protective clothing labelled as meeting the standards as specified in the Class Requirements.

Protective clothing includes suit, head sock, female sports bra, gloves, and boots or shoes. Suit can be one piece, or separate jacket pants. Jacket and pants must each be labelled as meeting applicable SFI Spec.

All jackets and pants, or driver suits, that meet SFI Spec 3.2A/15 or SFI Spec 3.2A/20 must be recertified on a five-year interval.

All drivers are required to wear full-length pants, shoes, and socks. Nylon or nylon-type clothing and open-toe shoes prohibited, all gloves must have a full layer of flame-retardant material inside the glove. Leather palm gloves without a full layer of flame-retardant material separating leather from driver's hand prohibited.

Drivers in all open-bodied cars must wear full-face helmet, and SFI 3.3 fire-resistant gloves, minimum. See General Requirements.

Drivers of all open-bodied cars who do not use an SFI 3.3 neck collar must use an SFI 3.3 skirted helmet.

See Class Requirements for protective clothing specifics.

**10.11 SEAT BELTS** All cars not required by Class Requirements to use SFI 16.1 or 16.5 or FIA 885 3/98 driver restraint system must be equipped with an accepted quick release-type driver seat belt (OEM accepted). Belts must be securely fastened to the frame, cross member, or reinforced mounting so that all fittings are in a direct line with the direction of pull. Seat belts may not be wrapped around lower frame rails. Steel castings of the type recommended by FAA or U-bolt-type mounts are accepted. If used for installation, flat steel plates must be a minimum of ¼-inch (6.35 mm) thickness and have rounded edges to prevent cutting seat belts. Under no circumstances can belts be installed with bolts through webbing. All cars in competition requiring a roll bar or when a roll cage has been installed or as outlined by Class Requirements, require a SFI 16.1 restraint system (See 10.5 DRIVER RESTRAINT SYSTEM).

## 11. GENERAL

11.1 ADVERTISING AND OTHER MATERIAL / DISPLAYS JAMWEST SPEEDWAY reserves the right to regulate any advertising or other material appearing on any participant and on the body or any car or transporter participating in JAMWEST SPEEDWAY events. Participants and vehicles may be

excluded from competition and from event facilities if, in JAMWEST SPEEDWAY'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 JAMWEST SPEEDWAY and the sport of drag racing. Refer to Articles 209 to 211 of the International Sporting Code.