2019 New England Top Drift Series Technical <u>Regulations</u>

Vehicles and Safety Rules

1. Vehicle Type

1.1 Type of vehicle must be a mass production vehicle.

1.2 Vehicles must maintain the original OEM steel unibody structure between the OEM front and rear suspension mounting points.

1.3 Acceptable chassis are coupe, sedan, convertible, or wagon and have no more than 5 doors.

1.4 Vehicles that do not meet the above eligibility criteria must petition for approval.

2. Chassis

2.1 The original OEM floor pan, frame, and or unibody must remain unmodified between the vertical planes created by the original forward most and rearward most suspension point or subframe mounting point.

2.2 Unibody or chassis may be stich or seam welded.

2.3 Plating of chassis is prohibited. Certain chassis specific exceptions, such as E46 subframe mount plating, may be granted on a case by case basis

2.4 Items in the unmodified zone that can be removed may include original rear window parcel shelf, convertible top frame, tabs or mounts for unused OEM steering columns, unused OEM windshield wiper mounts, and the exterior roof panel can be replaced with a composite panel.

2.5 Rear suspension tower cross-members located at the top of the rear suspension towers may be removed from the unibody interior only if a suitable replacement structure of equivalent strength is installed.

2.6 No part of the engine casing may cross the vertical threshold of the original firewall into the transmission tunnel.

3. Roll Cage

3.1 The roll cage material should be DOM, chromoly, or SAE 1020 or 1025 mild steel. It must be at least 1.5" diameter and .095 inches thick. All plates attached to the chassis must be at least .08 inches thick. All welds should conform to American Welding Society standards.

3.2 The roll cage shall attach to the chassis/unibody in six points (eight points recommended to accommodate anti-wheel intrusion bar)

3.3 Gussets of such as dimple die plates are allowed along A-pillar, B-pillar, and roof structure. Gussets shall be made from steel plate no thicker than .125-inch.

3.4 No gussets or attachment of any form may pass from the door bars to the chassis, unibody, or rocker panel.

3.5 Bolt in roll cages are not allowed.

3.6 All cages must have side protection via either X style door bars or "NASCAR" double horizontal bars, with a minimum of two uprights.

3.7 No portion of the cage may permeate the firewall and shall be fully contained within the driver's compartment.

3.8 No additional bracing may be used between the strut tower and the firewall.

3.9 Any number of additional reinforcing bars, gussets or supports is permitted within the confines of the roll cage.

3.10 Modifications to the chassis or notching for roll cage clearance must have prior written approval from the COMPETITION DIRECTOR.

3.11 Padding must meet SFI spec 45.1 or FIA 8857-2001.

3.12 Padding is required anywhere driver helmet may come in contact with the roll cage and along the base of the driver's side A-pillar bar and box if applicable..

4. Body Exterior and Interior

4.1 Exterior

4.1.1 Vehicles must maintain the OEM look and feel.

4.1.2 Panels must be clean and presentable for competition.

4.1.3 All bodywork must be painted or covered and securely attached to the vehicle. Carbon fiber panels may remain unpainted as long as they are presentable.

4.1.4 Aftermarket body panels, front and/or rear fascias, side skirts and wings are permitted.

4.1.5 One piece front ends are not permitted.

4.1.6 Over fenders are permitted.

4.1.7 Body work that is not designed as OEM or an OEM replacement of the original make and model of the vehicle must be approved by the COMPETITION DIRECTOR.

4.1.8 Bumper bars must remain in the confines of the body lines and body work, without additional covers or body work extensions in order to do so.

4.1.9 Vehicle must have at least one tow hook or strap installed in the front and rear of the car. It must be rated higher than the vehicle weight. It must not protrude more than 3 inches from the leading edge of the body. It should be clearly marked with the word "TOW"

4.1.9 All competition vehicles are required to run the New England Top Drift windshield banner and door ID decals.

4.2 Windows and Window Restraints

4.2.1 All Windows must be OEM or a Lexan/polycarbonate material. Non-glass must be securely mounted and have a vertical brace installed.

4.2.2 Windshields and back glass are required.

4.2.3 Lexan/polycarbonate windshields must be a minimum thickness of .1875-inch

4.2.4 Lexan/polycarbonate windshields must be securely mounted and have a vertical brace .750-inch wide x .0625-inch aluminum which is securely mounted down the center of the opening on inside the vehicle.

4.2.5 Door, quarter and rear window must be OEM glass or clear/polycarbonate with minimum thickness of .125-inch and securely bolted in place.

4.2.6 Side windows shall have a window net, OEM glass, or a piece of Lexan/polycarbonate in place of both front window openings whenever the vehicle is on-track.

4.2.7 Competitors may choose to use arm restraints in lieu of side windows or a window net.

4.2.8 Competitors with convertible vehicles must use arm restraints.

4.2.9 Two external, rear-facing mirrors are required, and must be positioned so that the driver can see objects along both sides of the vehicle.

4.3 Interior

4.3.1 All non-essential and/or loose items must be removed.

4.3.2 Vehicles must be equipped with a factory or aftermarket/custom dashboard.

4.3.4 Dashboards cannot have unsafe or sharp edges.

4.3.5 A 2.5 lb. ABC Fire extinguisher is required and must be mounted within driver's reach while seated.

4.3.6 A fire suppression system may be used instead of an extinguisher. This system must meet FIA or SFI standards.

4.3.7 The inside and outside door latch/ lock operating mechanism must be functional and readily accessible for the driver to exit the vehicle.

4.3.7 Doors with an exposed interior must have the sharp edges removed or covered.

4.3.8 Any lines or associated systems in the cockpit must be fully enclosed and separated from the cockpit with a minimum thickness of .036 inch steel or .059 inch aluminum.

4.3.9 If coolant system passes through or is open to the cockpit then it must be separated in an enclosure.

4.3.10 Shifter hole may be modified for shifter clearance, but the hole should not be excessive, and must be sealed from the cockpit.

4.4 Safety Harness and Seat

4.4.1 A five-point or better system is required.

4.4.2 All harness belts must be rated SFI 16.1, 16.5 or FIA 8853/98 or higher.

4.4.3 All belts must be in good condition and replaced if frayed or cut in any way.

4.4.4 Harness must be attached to the cage or frame of the vehicle whenever possible; if not possible, then it must be attached to a secure system with SAE Grade 5 or higher hardware and large diameter washers should be used to distribute then load.

4.4.5 Shoulder harness must not exceed 10 degrees and must be attached to the roll cage behind driver.

4.4.6 Mounting, installation, and use of harness and seat must be in accordance with SFI or FIA recommendations.

4.4.7 Seats must be homologated to FIA standard 8855-1999.

4.4.8 The usable life of an FIA homologated seat is 5 years from the date of the manufacture indicated on the seat label.

4.4.9 Seat Supports shall be of the type listed on FIA technical list No. 12 (lateral, bottom, etc.)

4.4.10 All hardware used in the mounting of seats, or other structural supports shall be SAE Grade 5 or better with a 5/16" minimum diameter, or manufacturer specified hardware.

4.4.11 Passenger seats are required. Factory seats are acceptable.

5. Mechanical and Electrical

5.1 Engine and Transmission

5.1.1 Engine substitutions and modifications are free, but may only run on gasoline, diesel, and ethanol blends. All other fuels require written approval from the COMPETITION DIRECTOR.

5.1.2 Transmission substitutions and modifications are free.

5.1.2 All fluid systems must be free of leaks

5.1.3 Bell Housing Blanket recommended

5.2 Cooling System

5.2.1 Cooling system modifications are free but must be fully closed and free of leaks

5.2.2 Automatic water sprayers will be allowed during competition, but must not be leaking on the track, starting line, or grid area.

5.2.3 If cooling system lines are routed in the driver's compartment or a trunk area that is open to the driver, they must be separated from the driver by a crushable metal enclosure made up of .036-inch steel, or .059 inch aluminum. The floor of the enclosure must be designed to prevent accumulation of fluids.

5.2.4 Cooling systems shall be filled with water only. Coolant Additives such as NEO "Keep Cool" and Redline "Water Wetter" are allowed.

5.2.5 Radiator catch tanks are required. Catch tanks must be securely fastened and sealed from the driver's compartment.

5.3 Oil System

5.3.1 Oil system modifications are free but must be fully closed and free of leaks

5.3.2 If the oil tank is located in the driver's compartment area, or a trunk area that is open to the driver, it must be separated from the driver by a metal enclosure made up of .036-inch steel, or .059-inch aluminum.

5.3.3 The floor of the enclosure must be designed to prevent accumulation of fluids.

5.3.4 All crankcase vents must be plumbed back into the intake tract. If vented to atmosphere, it must be plumbed to an oil catch tank with a minimum capacity of one (1) quart. Catch tanks must be securely fastened and sealed from driver's compartment.

5.3.5 All engine components and exterior components that support engine operation such as oil cooler, Accu-sump, drum-sump tank, oil filter, and oil lines must be protected and within the confines of a structural member of the car.

5.4 Fuel System

5.4.1 Fuel cells are required if the factory fuel tank, design, and location is not used.

5.4.2 Fuel cells must be a safety style fuel cell with a bladder inside of a metal enclosure.

5.4.3 Fuel cells must be within the confines of the roll cage and/or frame rails.

5.4.4 Fuel cell must be completely separated from the cockpit with a permanent enclosure attached to non-moving parts.

5.4.5 Fuel cells require a one-way valve.

5.4.6 Fuel lines must be leak-free and mounted securely away from moving parts. All

5.4.7 Fuel lines must be located outside of the cockpit.

5.4.8 Fuel lines must be shielded from the ground.

5.4.9 If nitrous oxide is used, it must be securely mounted and protected via a tubular structure or factory frame structure. Brackets must be high strength and a pressure relief value is required and must be vented to the outside of the vehicle.

5.4.10 Drag race style fuel cells with bottom mount sumps and or fittings are prohibited.

5.5 Electrical System

5.5.1The battery must be securely mounted and the positive terminal completely insulated to avoid contact with any other metal parts.

5.5.2 A maximum of two batteries are allowed on vehicles with an internal combustion engine.

5.5.3 Batteries may be relocated.

5.5.4 Relocated batteries must be fastened to the frame or unibody with a minimum of two 3/8in diameter bolts.

5.5.5 Plastic hold down brackets and J bolts or hooks are prohibited. Unless they are the specified factory hardware.

5.5.6 A master shut off switch is required and must be clearly marked and visible. It must shut down all electrical components except for any fire suppression systems. Location must be on the front right cowl.

5.5.7 All wiring must be securely fastened and insulated in contact areas properly.

5.5.8 When passing through a firewall or other barrier, grommets must be used.

5.5.9 Headlights, tail lights and brake lights must function normally.

5.5.10 Brake lights and tail lights may only be red.

5.5.11 Any variation of red and or orange colored headlights is prohibited.

5.5.12 The use of electrical, mechanical, and or hydraulic cutoff switches, relays, or any other device that renders the brake lights inoperative in any way, is strictly prohibited.

5.5.13 A brake light strip can be affixed in the front but is not required.

5.6 Suspension Components

5.6.1 OEM front sub-frames and cross members must be stock and available on the exact year make and model that is competing.

5.6.2 Original suspension design type must remain: Double wishbone, MacPherson strut etc.

5.6.3 Modified or aftermarket suspension parts, including hubs, are allowed.

5.6.4 Suspension relocation brackets that move suspension points or pivots regardless if they are bolt in to the chassis will not be allowed.

5.6.5 MacPherson strut upper mount pivot must remain within the centerline dimension of the OEM unaltered factory bolt pattern on the chassis

5.6.6 All original suspension mounting tabs must remain in the original position. NO cutting, welding, bending, drilling or modifications of any kind will be allowed.

5.6.7 Front subframes may only be modified to directly allow for oil pan/ starter clearance and steering rack relocation. The front subframe must retain intact on at least one major member on one face that spans the entire width of the subframe, thereby keeping the original dimensions of the subframe intact. Any other modifications, cutting, welding, strengthening, etc is not allowed.

5.6.8 Modifications of steering components (steering rack, tie rods, etc) are free. This includes mounting the rack to the front subframe.

6. Tires

6.1.1 Tires must be stamped 265mm or less on the sidewall. No other tires should be brought to the track.

6.1.2 Any tires stamped larger than 265mm found in trailer or cockpit could result in disqualification of driver/team.

6.1.3 Tire Treadwear Regulations: Both front and rear tires must have a UTQG rating of 160 or higher.

6.1.4 Any attempt to modify tires in any manner is prohibited. "Grooving" or "Shaving" of tires is prohibited.

6.1.5 The use of traction compounds or any other substance that may alter the physical properties of the tire are prohibited.

6.1.6 Tire warmers or any other means of artificially altering the tire temperatures are prohibited.

6.1.7 Be available at regular retail outlets, online or storefront.

7. Drivers Safety Requirements

7.1.1 All occupants must wear a safety helmet during on-track sessions. Only helmets certified to meet the following standards are permitted:

Snell Memorial Foundation – SA2005, SA2010, SAH2010

SFI Foundation – Spec 31.2, Spec 31.2A

FIA 8860-2004, 8860-2001

7.1.2 Full-faced helmets are required.

7.1.3 Helmet chin straps must be buckled or fastened while on course.

7.1.4 Driving suits must have a SFI spec 3.2/A/5 or FIA 2000 rating or higher. Gloves, shoes, and socks must have a SFI spec 3.3/5 or FIA 8856-2000 or higher rating.

Competition Format, Rules and Regulations

1. Format

Drivers meeting is mandatory.

Seeding is based on driver ranking assigned by the panel of judges. This will be based on the drivers practice runs and ability to adhere to the judge's criteria (line, angle, style) given in the drivers meeting. There will be no defined qualifying time, open practice will be judged as if it was qualifying. You will be watched during practice and seeded accordingly based on your runs that day.

You must link a complete run to be entered into the competition battles before the cutoff time. The cutoff time will be given in the driver's meeting.

Driver's will be seeded by the cutoff time based on those who are mechanically able to drive or expect to be able to drive by the start of the elimination brackets. Once the bracket is set this will be the lineup for the rest of the competition based on single elimination battles.

No matter the seed, all drivers who complete at least one linked run are guaranteed a tandem battle and no driver will have to worry about subjective qualifying scoring.

Safety rule: If any driver is unable to navigate the course during practice or is otherwise deemed unsafe or unable to compete by the judges, such driver will forfeit his/her position for the event.

In the event of a situation that is not explicitly given in the rules, the competition director will make the call.

2. Tandem Battle

Drivers meeting is mandatory.

At every drivers meeting the judges will explain what they are looking to see from the drivers that day. What lines, speed, do's and don'ts all explained. Judges will make the final call. There are no petitions or other changes once the final decision is made. If any abnormal situation is created that is not listed in the rulebook the judges will decide what is the fairest way to proceed.

Zeros-

- 1. Off-course -will result in a zero 2 tires off is not necessarily a zero. It will be a deduction in judging but will not automatically be considered a zero. If it is not clear that 2 tires are off, this is especially not considered a major deduction.
- 2. Re-initiations Re-initiations do not result in an automatic zero. This will be considered a major deduction and give a considerable advantage to the opponent in that run. The more

severe the mistake is the more weight it will carry.

Competition time-out

A 5-minute time-out can be called at any time before or after a run. This can only be used once per Round. The timer will begin once the driver is in his/her pit area and will stop once the driver exits his/her pit area.

Tire changes-

A reasonable amount of time between runs will be given for tire changes. During this change there is to be no work done on the car outside of changing tires. There is no 5-minute rule, but changes are expected to be done as quickly as possible and approximately in 5 minutes. Tire pressure can be adjusted at any time before or after battles but not between.

Cheating-

If a driver is found to be cheating, they will forfeit any winnings and all points. This will only affect the cheating driver.

Start Cones-

The lead driver will have to go through a chicane made of cones. If he/she hits one of these cones the run will be flagged and restarted.

Start Line-

Chase driver may leave the line at any time, but must be behind the driver or beside the driver at initiation. Lead driver must leave the line at the signal of the start of the battle (either by flag or light or other notification)

False start Point (sandbag rule)

There may be a point added to the course that is for the chase driver. If you feel like the lead driver is not accelerating at an acceptable pace and entering too slowly (typically in underpowered matchups) then you can stop before this point/cone and restart that run with no penalty.