

New England Hillclimb Series

Technical and Safety Requirements • 2004

Changes to the 2003 rules are indicated in ***bold italic***.

These regulations are set forth to provide for the orderly conduct of time trial events. Participants are cautioned that all motor sports have inherent risks; it is the participant's responsibility to take adequate precautions in light of these risks. No express or implied warranty of safety or freedom from risk shall result from publication of or compliance with these rules and regulations. They are intended as a guide for the conduct of this motor sport and are in no way a guarantee against property damage or injury to participants, spectators, or others. (Note: Double-letter designation [AA, BB, etc.] refers only to Prepared cars.)

1. CLOTHING

A. Shoes

1. No nylon.
2. No platform soles, high heels, open shoes, sandals.

B. Clothing

1. No nylon.
2. Long sleeves, long pants.
3. Fire-retardant outer clothing or underwear recommended.

BB. Clothing

1. Fire-retardant outer clothing or underwear.
2. Fire-retardant gloves.
3. Fire-retardant hood or helmet skirt in open-engine cars. Recommended for all.

C. Helmet

1. Snell **SA95** or newer required.
2. Full-face helmets are recommended.
3. All helmets must be in good condition.
4. Recommended that helmets carry a sticker or label with medical information (blood type, any allergy, etc.).

D. Eye Protection

1. DOT-approved windshield or
2. Suitable goggles (in good condition) or
3. Face shield (shatterproof polycarbonate (Lexan) required).
4. Polycarbonate (Lexan) may be used where permitted as an alternate windshield or window. Acrylic (Plexiglass) is not acceptable.

2. CHASSIS

A. Suspension

1. Ball joints, bushings and rod ends to have negligible play (not to exceed manufacturer's specifications).
2. Wheel bearings: minimal play and secure.
3. Steering: no loose tie rods, pitman arms, idler arms, or rack ends. Limited free play; steering wheel in good condition, tight column. If a quick-disconnect steering wheel coupler is used, it must be made of metal, with no plastic inserts.
4. No excessive ride heights, devices that bind suspension, or other unsafe conditions.
5. Suspension to be in generally safe condition and suitable for high-speed competition.

B. Brakes

1. Master cylinder full to capacity, no leaks.
2. No leaks in lines, hoses, cylinders or calipers.
3. Four-wheel brakes required.
4. Solid pedal; limited free play.
5. Dual or duplex master cylinder(s) required unless car was produced prior to 1967.

BB. Dual System

1. Any device that actuates the brake independent of driver control shall not be allowed, except for Formula Libre. Devices that limit braking power independent of driver control are allowed.

C. Wheels/Tires

1. No missing or loose lugs.
2. No cracked, broken, or badly bent wheels.
3. Wire wheels: tightly spoked, no more than two adjacent or three total loose or missing.
4. Street tires: visible tread the full width of the tire, no cord separation, DOT#, good tire condition.

CC. Race Tires

1. No cuts or frayed cords, sidewalls in good condition, tread indicators visible.

3. BODY AND FRAME

A. Construction

1. Neat, safe construction, all parts secure, adequate tire clearance, no jagged edges within driver's reach.
2. No excessive rust in floors or structure.
3. Firewall between engine and driver.
4. Exhaust systems should be securely mounted.
5. All rotary engine cars must be adequately muffled.
6. All cars shall be muffled, 96 dBA limit at 50 feet will be considered muffled. The event chair has the right to waive this requirement.

AA. Construction

1. In absence of full factory steel floor and firewall, chassis structure must be reinforced to prevent driveline intrusion into driver's compartment.
2. Driver must be guarded from driveshaft.
3. Front driveshaft loop required on rear-wheel-drive cars.

B. Numbers

1. Legible numbers both sides (i.e., 8" minimum with 1" stroke) with class designation (3" min.).
2. Only the number for the competing driver may be displayed. Alternate (i.e., double driver) numbers must be obscured or removed.
3. A registry of permanent numbers will be maintained by arrangement with the points keepers of the sponsoring clubs. These numbers will be given preference in assignment for each event.

4. COCKPIT

A. Belts

1. An SFI approved 5-, 6-, or 7-point harness assembly is mandatory for all cars, with the following exception: Unprepared cars will be permitted to use their stock 3-point belts, but will be strongly advised to use a full harness assembly.
2. Y-type shoulder harness is NOT permitted.
3. All harnesses must be properly mounted and adjusted.

4. All harness assemblies must be in excellent condition, not discolored or visibly deteriorated and not altered from original condition. All harness assemblies must be no more than 5 years old as dated on the manufacturers label.
 5. Seat belt anchor points must not be rusted.
- B. Fire Extinguisher
1. 2.5-lb minimum A-B-C type or 1.25-lb Halon or approved substitute; must be fully charged.
 2. Shall be securely mounted with catch to side or rear. No plastic straps, catches, or brackets. Must not be mounted behind the driver and should be mounted as low and as far forward as possible. Should be mounted within reach of the driver.
 3. Onboard fire system may be used in lieu of the extinguisher, and is required in any car with a nitrous system. Must be SCCA approved. It is highly recommended that a hand held bottle is also carried.
- C. Seats
1. Shall be sturdily mounted and sturdily constructed.
 2. Fiberglass and other lightweight seats must be framed and mounted at multiple points.
 3. Racing seats are allowed in Unprepared class and highly recommended in Street Prepared and Prepared classes.
- D. Interior and Trunk
1. No loose objects, loose carpets or mats.
 2. No spare tire or jack.
 3. Small tools or items shall be in a closed compartment or suitably secured.
- E. Collision Protection
1. Roll bar required in all cars without a steel roof or factory roll protection.
 2. Roll cage required in all Street Prepared and Prepared cars. Roll cage recommended in all cars.
 3. Head rest required, maximum of 3" behind driver's head as seated. Any area reachable by driver's head must be covered by shock-absorbing material.
 4. Roll bar or roll cage must be of adequate construction, i.e., 1.5" by .090 wall steel or equivalent for cars under 2500 lb; 1.75" by .090 wall or 1.5" by .120 wall steel tubing or equivalent for cars over 2500 lb. Must be well braced and solidly mounted. Refer to SCCA – GCS section 18 for details.
 5. Roll bar height must exceed the height of driver's head.
 6. Vehicles must have side protection. Stock crash bar found in most cars is acceptable.
 7. **All roll cages will have padding wherever the body or helmet can come into contact with the cage. Approved roll bar padding only can be used.**
- EE. Collision Protection
1. Adequate protection from driver's side impact is required.
- F. Arm Restraints
1. If possible, driver's window must be raised to 2/3 height or car must be equipped with a window net.
 2. If a Window Net is required the Window Net must withstand 50-lb outward pull. Net must be releasable by driver or workers, without tools.

- FF. Arm Restraints
1. Window net or arm restraints required; however, where it can be shown to the Technical Inspector that it will interfere with the safe operation of the car, this requirement can be waived.
5. GENERAL
- A. Electrical
1. No frayed, loose, or easily pinched wires. Battery cable must not pass through the frame rails or roll cage tubing.
 2. Battery must be securely mounted and sealed from the driver.
 3. Positive battery terminal must be covered with a nonconducting cover to protect against shorting out and causing a fire.
 4. Batteries mounted in same compartment with fuel tank must be enclosed in an insulated box and securely mounted.
- AA. Kill Switch
1. Switch to cut off / isolate battery power power throughout the car, obviously marked with a universal sign.
- B. Fuel System
1. Gas tank must be securely mounted and protected.
 2. No leaks in tank or system.
 3. Fuel cells in a metal can recommended.
 4. Gas tank sealed from driver, or approved by SCCA, NASCAR, etc.
 5. Tank must be vented to outside air or EEC system and may not be pressurized.
 6. The fuel pumps may only operate when the engine is running, except during the starting process.
 7. Fuel lines must be securely mounted and well protected from heat, collision and abrasion.
- C. Fuel
1. Any normally accepted fuel is legal.
 2. Hydrazine and liquid oxygen are specifically banned due to explosion hazard.
- D. Oil System
1. No leaks.
 2. No excessive oil in engine compartment.
- DD. Oil System
1. Must have oil overflow catch can of at least 1 qt or breather system to prevent oil escape.
- E. Coolant Overflow
1. One-quart minimum nonpressurized reservoir required or to meet manufacturer's specifications.
- FF. Traction Control
1. Devices that automatically limit engine power to control traction shall not be allowed, except in Formula Libre.

Note: For safety reasons, a horn is encouraged on all vehicles.