# Driver & Vehicle Tech Checklist
# Clifton Hill Climb

**2020**

Complete this checklist and present it with your race car and driver gear to the Tech Inspector either at the Pre-Event Tech sessions or at the Hill Climb event. This list is intended to give you the basics needed to get you and your car prepared for the event, as always if you have a question refer to the General Competition Rules and the Time Trials Rules for Hill Climbs. These rulebooks can be downloaded from the SCCA website at:
https://www.scca.com/downloads/43635-2019-scca-hillclimb-rules

**Driver Information:**

| Name: | SCCA Member #: | ☐Not a Member * |
|---|---|---|

* If you are not currently a SCCA member, you will need to purchase the $10 Weekend Membership when registering online

**License Information:**

| ☐ SCCA Competition License Novice or Full<br><br>Valid Until: _____ | ☐Time Trials Competition License or Novice Permit<br><br>Valid Until: _____ | ☐ Racing License from a Recognized Motorsports Organization *<br>Organization Name:<br>_____ | ☐ Not licensed **<br><br>Or<br><br>☐ Never licensed |
|---|---|---|---|

* A list of Recognized Motorsports Organizations can be found in the General Competition Rules Appendix C - Section 2.8 – B

** If you have previous racing or track experience, use the form on page 4 to document your history and we'll that information into consideration.

**Driver Safety Gear:**

| Helmet must meet: | Driver Suit must meet: |
|---|---|
| • Snell Foundation Standards<br>  ○ SA2015, SA2010, SAH2010, SA2005<br>• SFI Standards<br>  ○ 31.1A, 31.2A<br>• FIA Standards<br><br>☐ My Helmet meets these standards | • FIA Standards<br>  ○ 8856-1986 or 8856-2000<br>• SFI Standards<br>  ○ 3-2A/5 or higher (e.g. /10, /15, /20)<br>  ○ Suits with 3.2A/1 may only be worn with fire resistant underwear<br><br>☐ My Driver Suit meets these standards |
| **Other Driver gear:** | **Related Safety Gear in Car:** |
| ☐ Gloves made of leather or accepted fire resistant material with no holes<br><br>☐ Socks made of accepted fire resistant material<br><br>☐ Face coverings (balaclavas) of accepted fire resistant material for drivers with beards or mustaches<br><br>☐ Shoes with uppers of leather and/or nonflammable material that cover the instep | ☐ Window safety nets or arm restraints are required<br>  ☐ Arm restraints are required on all open cockpit cars<br>  ☐ Closed cockpit cars may use either arm restraints or driver's side window net<br><br>Head and neck support system is highly recommended |

**Vehicle Safety Equipment:**

My vehicle has a current log book and is equipped to meet one of the standards below:

| | |
|---|---|
| ☐ Current GCR National or Regional Classes | Class: _____ |
| ☐ Solo Street Prepared and Street Mod Classes | Class: _____ |
| ☐ Vintage-legal SCCA, HSR, SVRA, etc cars | Org/Class: _____ |
| ☐ Other classes such as Specials, Rally, Legends, other Race series | Org/Class: _____ |

My vehicle does NOT have a current log book, therefore it will need a fully inspection and must meet the criteria below:

**MINIMUM VEHICLE SAFETY EQUIPMENT:** All vehicles must have the following safety equipment at a minimum: driver restraints, roll bar or cage, fire extinguisher. Vehicles shall meet the safety requirements for the class in which they are logbooked.

- **ROLL BAR SPECIFICATIONS**: A roll bar is defined as a main hoop and diagonal placed behind the driver and supplemented by two braces. The roll bar must be designed to withstand compression forces resulting from the weight of the car coming down on the roll structure, and to take fore-and-aft loads resulting from the car skidding along the ground on the roll structure. The basic purpose of the roll bar is to protect the driver in case the vehicle rolls over.
  - One continuous length of tubing must be used for the hoop member with smooth continuous bends and no evidence of crimping or wall failure.
  - The top of the roll bar must be above the top of the driver's helmet when the driver is in normal driving position.
  - The two (2) vertical members forming the sides of the hoop must be more than fifteen (15) inches apart (inside dimension), and it is desirable that it extend the full width of the cockpit.
  - An inspection hole of at least 3/16 inch diameter to facilitate verification of wall thickness might be required. It must be drilled in a non-critical area of a roll bar member at least three inches from any weld or bend.
  - All bolts and nuts shall be SAE Grade 5 or better, 5/16" minimum diameter.
  - Braces and portions of the main hoop subject to contact by the driver's or passenger's helmet, as seated normally and restrained by seatbelt and harness, must be padded with a non-resilient material such as Ethafoam (R) or Ensolite (R) or other similar material with a minimum thickness of one-half inch. Padding meeting SFI spec 45.1 or FIA 8857-2001 is strongly recommended.
  - The size of tubing to be used for the main hoop, braces and diagonals shall be determined on the basis of the weight of the car. The following minimum sizes are required and are based upon the weight of the car without the driver. Dimensions are nominal. 0.005" variation in wall thickness is allowed.
    - Over 1500 lbs. 1.50 x .120 or 1.75 x .095
    - Over 1000 lbs. 1.25 x .090
    - Under 1000 lbs. 1.00 x .060
  - The roll bar hoop and all braces must be of seamless or DOM mild steel tubing (SAE 1010, 1020, 1025) or equivalent, or alloy steel tubing (SAE 4130). For cars logbooked before 1/1/16, existing ERW tubing is acceptable.
  - All welding should be of the highest possible quality with full penetration. Craters should be filled to the cross section of the weld, and undercut be no more than 0.01 inch deep.
  - All roll bars must be braced in a manner to prevent movement in a fore-and-aft direction with the braces attached within the top one-third of the roll hoop. At a minimum, two braces must be used, parallel to the sides of the car, and placed at the outer extremities of the roll bar hoop. Such braces should extend to the rear whenever possible. Diagonal lateral bracing must be installed to prevent lateral distortion of the hoop. In most cases, a lateral brace from the bottom corner of the hoop on the side to the top corner of the hoop on the other side is sufficient. Although installing the diagonal lateral brace in the main Track Trials & Hill Climb Page 4 of 5 hoop is the strongest (and hence most preferable) alternative, there may be instances where such an installation is not practical. In such situations, the installation of the diagonal brace running from the bottom of the fore/aft brace on one side to the top corner of the hoop on the other side is acceptable.
  - Removable roll bars and braces must be very carefully designed and constructed to be at least as strong as a permanent installation. If one (1) tube fits inside another tube to facilitate removal, the removable portion must fit tightly and must bottom on the permanent mounting, and at least two (2) bolts must be used to secure each telescope section. The telescope section must be at least eight (8) inches in length. One bolt is required if one end is welded to the main hoop.
  - It is recommended that all cars utilize a roll cage as defined in the current GCR.

- Roll bars and braces must be attached to the frame of the car wherever possible. Mounting plates may be used for this purpose where desired.
- In the case of cars with unitized or frameless construction, mounting plates may be used to secure the roll bar structure to the car floor. The important consideration is that the load be distributed over as large an area as possible. A backup plate of equal size and thickness must be used on the opposite side of the panel with the plates through-bolted together.
- Mounting plates bolted to the structure shall not be less than 0.1875 (3/16) inch thick and the use of a back-up plate of equal size and thickness on the opposite side of the panel with the plates through-bolted together is recommended. A minimum of 3 bolts per plate is required for bolted mounting plates.
- Mounting plates welded to the structure shall not be less than .080 inch thick. Whenever possible the mounting plate should extend onto a vertical section of the structure such as a door pillar

- **FIRE SYSTEMS:** All vehicles shall meet one of the following minimum requirements:
  - On-board fire systems per GCR
    - Halon 1301 or 1211, two (2) pound minimum capacity by weight.
    - Dry chemical, two (2) pound minimum with a positive indicator showing charge.
    - Chemical: 10 BC or 1A10BC Underwriters Laboratory rating.
  - The fire extinguisher shall be securely mounted. All mounting brackets shall be metal and of the quick-release type.
- **DRIVER RESTRAINTS:**
  - All drivers participating in TT or Hill Climb Events shall utilize either a five, six or seven point restraint harness meeting one of the following: SFI specification 16.1 or 16.5, FIA specification 8853/1985 including amendment 1/92 or FIA specifications 8853/98 and 8854/98. All harnesses shall bear labels bearing either SFI or FIA certification. Shoulder straps shall be separate. Two inch shoulder straps shall only be used with head and neck devices. SFI and FIA harnesses are not subject to a time constraint but shall be in good condition (no cuts, abrasions, abnormal wear, etc.).
- **SEATS:**
  - It is highly recommended that the driver's seat be replaced with a one-piece bucket type race seat and include an upper brace if non-FIA homologated.

**VEHICLE PREPARATION AND INSPECTION:**

The entrant is responsible for insuring that the vehicle being used is properly prepared for operation under elevated acceleration, braking and cornering forces. Cars must have a SCCA Time Trials or Road Race Logbook or a logbook from an accepted racing organization. Annual Inspections are allowed. Car numbers shall be at least 8 inches high and class letters shall be at least 4 inches high. Vehicles and/or logbooks will be inspected by the SCCA tech inspector at each event.

Car Classing:

If your car is not currently classed in one of the groups/classes mentioned above – open the General Competition Rules PDF file and search for the name of your car. Example: In Abode Reader, click on the Edit menu and Find, then enter the name of your car model (e.g. Mustang) use the Next button to search for additional references to that name in the rules to find the class that most matches the preparation level of your car.

Enter the classes you feel your car most accurately matches:

1. First Choice:
2. Second Choice:
3. Third Choice:

If your car is built similar to one of the Solo classes, do the same search in the Solo Rules under Appendix A – Automobile Classes, available online at:

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https://www.scca.com/downloads/49002-2020-solo-rules-book-2-draft-b-2020-02-14/download

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1. First Choice:
2. Second Choice:
3. Third Choice:

**Previous Track and Racing Experience:**