



Holley LS Fest Drift Challenge Tech and Safety Requirements

updated 2023

All requirements outlined in this document are mandatory and non-negotiable unless noted otherwise.

Safety is the most important part of any Motorsport event.

The requirements within this document are in place to create the safest environment possible for all drivers, crew members, track and event staff, media, and spectators.

Should any pre-approved LS Fest Drift Challenge competitor arrive to Holley LS Fest without the following requirements, they will have an opportunity to fix the issue on-site but will not pass Technical Safety Inspection until the issue is resolved. If a vehicle is unable to pass Technical Safety Inspection, the driver will not be permitted to participate in the event.

Please direct all questions to NickSwann@Holley.com

8pt (MINIMUM) ROLL CAGES w/ DOOR BARS ARE REQUIRED FOR ALL VEHICLES

All participating vehicles are required to have a roll cage that includes but is not limited to 8 points and (dual) door bars. The 8 points are as follows;

1. Footwell anti-intrusion bars (left and right = 2 points)
2. A pillar down bars at/near the front of each door sill (left and right = 2 points)
3. Main hoop down bars at/near each door jamb (left and right = 2 points)
4. Rear down bars at/near rear shock towers (left and right = 2)

Roll cages must be constructed of either DOM Seamless Mild Steel or Seamless Chromoly. ERW Mild Steel is NOT permitted. Tubing diameter is determined by the weight of the vehicle (all fluids with driver). For example; up to 3,500lbs – 1.5"x.095" DOM Mild Steel or Chromoly.

All welds and materials must be free of cracks. Thorough penetration must exist between the tube and base material. All craters, if any, need to be filled to the cross section of the weld. Undercut should be no more than 0.01" deep. All welds must conform to "American Welding Society D1.1:2002, Structural Welding Code, Steel Chapter 10, Tubular Structures".

The roll cage must be mounted to the floor of the chassis in at least 6 points via plates or boxes. All attachment points must be mounted to said plates or boxes via 360 degree welds. Mounting plates can be no smaller than 2" on any side and must have a minimum thickness of .08".

Bolt-in roll cages are allowed but *not* encouraged. Bolt-in cages must attach to the chassis in the same 6 points and use plates that are at least 3/16" thick and sandwich to the body. A minimum of 3 bolts per mounting plate is required. All mounting hardware must be (at least) SAE Grade 5 or better and be a minimum of 5/16" in diameter. All nuts must be secured with safety wire, lock washers, Nylock, or jam nuts.

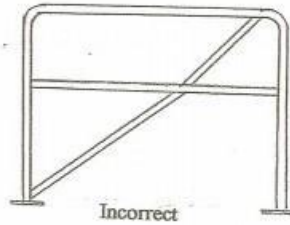
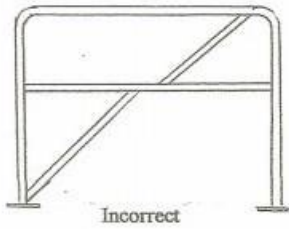
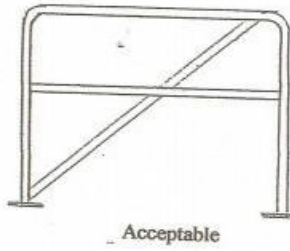
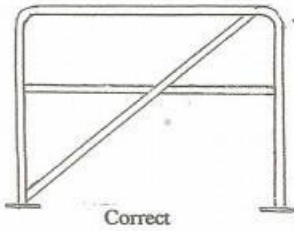
Each roll cage will be visually inspected before Open Practice and are required to meet all of the aforementioned criteria. All roll cages are required to have an inspection hole drilled in a non-critical area to verify wall thickness. The inspection hole must be at least 3/16" but no larger than ¼" in diameter.

The roll cage main hoop must be constructed from one continuous length of tubing and be as close to the full width of the interior as close to the roof as possible with *no more* than four (4) bends totaling *no more* than 180 degrees +/- 10 degrees. At least one (1) diagonal brace is required in construction of the main hoop. Each diagonal bar should be one continuous path with no bends. One end should attach to the mounting plate or main hoop as close as possible to the mounting plate and diagonally opposed to the driver's head. The other end will mount to the corner or horizontal part of the main hoop above the driver's head and within twelve inches (12") of the driver's side corner.

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Main hoop diagram for reference:

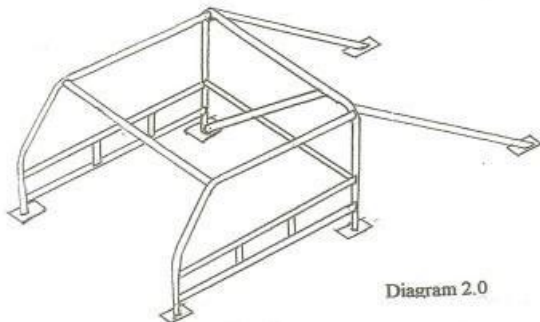
Diagram 1.0



The main hoop should also include a horizontal mounted harness bar and be constructed of the same material as the main hoop. The harness bar should be located no higher than the driver's shoulder height and it must extend from the left leg of the main hoop to the right and intersect the diagonal bar.

All hoops and down bars must mount to the floor as forward as possible following the A Pillar and door frame as closely as possible back to the main hoop. There should be a bar connecting each side hoops above the windshield as close to the roof as possible. Side hoops cannot have more than four (4) bends each totaling no more than 180 degrees.

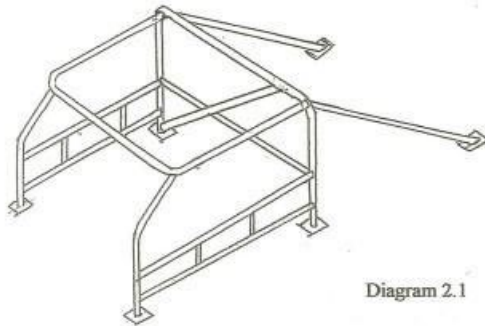
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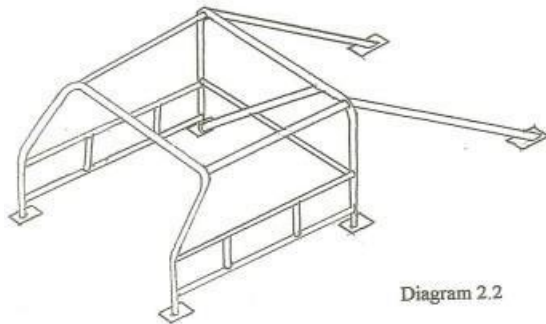
A halo hoop is one continuous piece of tubing that extends from the main hoop forward, following the roofline around the doors and windshield. The halo must connect to the floor with two (2) front down bars and have no more than four (4) bends totaling no more than 180 degrees.

For reference;



A front hoop is one continuous piece of tubing that extends from the floor, as forward as possible, following the A Pillar up to the roof, across the windshield line, and down the opposing A Pillar back down to the floor. No more than four (4) bends totaling no more than 180 degrees will be permitted. The front hoop must be connected to the main hoop by two (2) horizontal bars on either side above the doors.

For reference;



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The main hoop must have two (2) braces extending to the rear of the interior. These braces must attach as near to the main hoop as possible but no lower than 6" from the main hoop. Neither rear brace bar can have any bends in them and there must be a minimum of 30 degrees between the rear braces and the main hoop.

For reference;

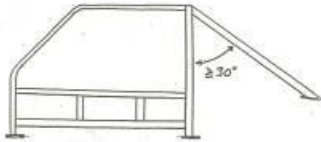


Diagram 3.0

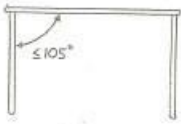


Diagram 3.1
Main Hoop Top View

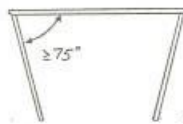


Diagram 3.2
Main Hoop Top View

All vehicles are required to have a minimum of two (2) bars across each door opening. The door bars may run parallel to one another or form an "X".

For reference;

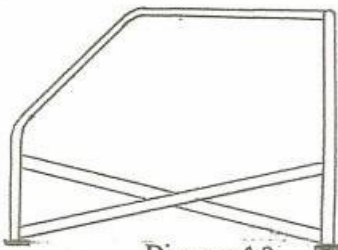


Diagram 4.0

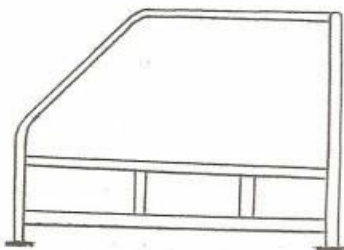


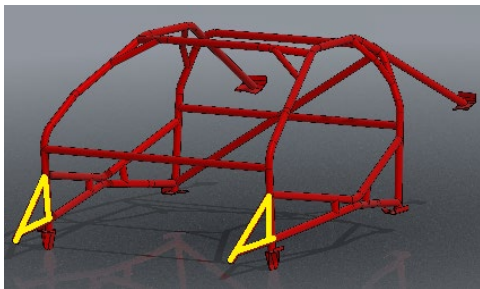
Diagram 4.1

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All roll cage surfaces that could potentially be points of contact for the driver should be padded with high-density padding. This padding is not required but it is *strongly* recommended. If padding is used, do it right the first time and use SFI spec 45.1 at the least.

*Anti-intrusion bars are required of all roll cages and must triangulate from the base of each A Pillar bar to the forward most point of the cabin in the footwell.

For reference;



ALL BODY PANELS MUST BE PRESENT

While this is not negotiable, it is something that will be taken case by case. Vehicles missing bumpers, fenders, hoods, windows, or any other panel for no justifiable or logical reason will not be allowed to compete. At LS Fest, we want to portray and maintain a professional image. That being said, we also *strongly prefer* but do not require all panels be painted or designed to match. And for heaven's sake y'all, wash your cars before the event.

ALL HELMETS MUST BE SA2015 OR NEWER

No motorcycle helmets, no novelty open-face helmets, no motorcross/dirt bike helmets. If the helmet doesn't have the appropriate certifications proving to be SA2015 or newer, you will not be allowed to wear it on track. It isn't guaranteed but, *sometimes* there might be proper helmets for rent or purchase. Simpson, Racequip, and Stilo are all part of the Holley Family and might be on hand and available. If so, you will have that option but nothing is guaranteed. You can also purchase them here;

www.holley.com/brands/racequip/

www.simpsonraceproducts.com/

www.stilohelmets.com/

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REGULATION SFI DRIVER SUITS ARE REQUIRED FOR COMPETITION

NEW FOR 2023 – Head and neck devices (HANS or equivalent) are mandatory for competition.

Safety equipment is paramount. The Drift Challenge at LS Fest is designed to accommodate both Pro level and ProAm level competitors and you know the drill; dress for the job you want. Suits, gloves, shoes, underwear, and other items are *strongly* recommended but not required for competition.

If ride-alongs are ever permitted, passengers are required to wear, at the very least, long pants, closed-toe shoes, and at short sleeves (no sleeveless shirts, tank tops, spaghetti straps, etc.).

Again, we can't stress this enough – safety equipment is *THE* most important part of any racecar build.

If you have been approved for the Holley LS Fest Drift Challenge and you are in need of any of the required safety items, please contact NickSwann@Holley.com or SteveSparkman@Holley.com and one of us will assist you in obtaining these items and help best we can.

FIA OR SFI APPROVED AND PROPERLY DATED SEATS AND HARNESSES ARE REQUIRED FOR COMPETITION

Seats and harnesses both should be mounted properly with the correct hardware and within their date of certification. If eyebolts are used through the floor, fender washers must be used on both sides to evenly spread the load. Harness shoulder straps must be mounted to the harness bar (specified above) and should *not* be outside of 20 degrees horizontal either direction. The seat cannot be used as a guide for the harnesses. No harness mounting points can be attached to the seat or seat rails, harnesses must be attached to the chassis.

*Stock/OEM seats and/or seatbelts are *not* allowed for competition.

NO EXPOSED WIRES OR LOOSE BATTERIES

Batteries must be securely tied down with plastic or metal hardware. No bungee cords, zip ties, etc. If the battery is located in the cabin, it must be sealed and non-venting. Non-sealed batteries are allowed in the cabin only if it's in a fully sealed box, mounted properly, and vented outside of the vehicle.

Brake lights must be operational. At the very least, one (1) clear indication of braking is required be it left, right, or third brake light.

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Regardless of ignition setup, every vehicle must be equipped with an internal and external kill switch. The external switch should be in an accessible location to safety workers such as the windshield cowl or B Pillar. It should be clearly labeled “KILL”, “KILL SWITCH” or with the universal graphic or something similar.



All wiring should be loomed, insulated, routed, and mounted properly and safely.

FIRE EXTINGUISHERS ARE REQUIRED IN ALL COMPETING VEHICLES

Fire extinguishers must be securely mounted within driver’s reach while in the seat with harnesses tightened. All fire extinguishers must be equipped with a gauge and read in the green showing proper charge. If any extinguisher is not equipped with a gauge or *is* equipped with a gauge and read either “recharge” or “overcharged”, it will not pass and you will be required to obtain a correct and properly charged extinguisher. The driver must be able to remove the fire extinguisher with ease. The minimal size required is 2lbs and it cannot be expired. A great point of reference for the proper fire extinguisher can be found here; <https://www.h3rperformance.com/> (not a Holley brand but a very accommodating brand for motorsports).

BE SMART, FIX WHAT’S BROKE, DON’T CUT CORNERS

General Technical and Safety Inspection includes but isn’t limited to inspection of each vehicle’s brakes, suspension, engine, drivetrain, and chassis for safe and proper operation and condition as well as the discovery of any current or potential issues.

Ball joints and suspension bushings and components must be in good condition and have no excessive play or movement. Steering needs to be smooth in operation with no binding. All lug nuts (and studs) must be present and torqued properly.

Everything in the car that may be loose is required to be removed. This includes but is not limited to floor mats, clothing, audio equipment, food/beverage wrappers or containers, even tuning tools such as PDMs or standalone or piggyback controllers. Nothing should be loose and moving around in the vehicle once on track.

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Coolant is not permitted. All cars are required to only use water and water wetter. If any oil-based coolant is used, the vehicle will *not* pass Tech Inspection and the driver will be asked to drain the coolant and refill with water and water wetter. No other fluids may be leaking from the vehicle. All reservoirs are required to be covered with some sort of absorbent item be it a reservoir cover, wristband, rag + zip tie, sock, etc.

A heat shield is required around the brake and clutch master cylinders on any vehicles with the exhaust side of the engine on the same side of the engine compartment even if exhaust/header wrap is used. Stock/OEM heatshields are sufficient especially in the case that they are reinforced with heat resistant/reflective tape or material. Just don't show up with a bunch of bent license plates in your engine bay thinking that'll work. It won't.

A fuel cap must be present on all fuel systems *unless* a dry-break system is used. A firewall is required for all fuel system components inside the cabin. Stainless steel braided lines can pass through the cabin but, all fittings must be behind the firewall or be similarly shielded.

Exhaust has to exit either under or out the side or back of the vehicle. If the exhaust exits under the vehicle, it is required to extend to, at least, the rear axles. If the exhaust exits out the side or rear of the vehicle, it cannot protrude an excessive amount – no more than an inch or two. No hood, bumper, or front fender exit exhaust will be allowed.

Wastegate exit for turbo cars is a different story and will be addresses case by case.

Tow hooks/straps are required for both the front and the rear of each vehicle. Factory tow hooks are allowed only as long as the driver accepts that the vehicle might be damaged if being towed. All tow hooks or straps should be easily found and clearly marked. Bright or hi-vis colors are recommended. Each tow hook or strap should be labeled "TOW".

Hood pins are required. No OEM/factory hood latch assemblies are allowed. A minimum of two (2) hood pins are required, they should be equally spaced, and within 24" of the leading edge of the hood. The only exception is for front-hinged hoods that open toward the front of the vehicle and this design must be OEM, not aftermarket. (Looking at you Corvette owners)

Front windshields are required. If glass is used, no cracks will be allowed. If not glass, only Lexan and polycarbonate are allowed and must be at least ¼" thick. Lexan windshields must have center supports and must be bolted or riveted to an interior windshield frame. Side and rear windows need to be at least 1/8" thick. Rear windows are *not* required so long as there is a rear firewall encapsulating the driver in the cabin.

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If you made it this far (everyone *should*), you deserve a little light reading.

We do this for fun. We do this because we love it. We do this because we're good at it and only want to get better. Let's get better together.

The Drift Challenge at LS Fest isn't a pro-only event, it isn't a professional licensing series, it isn't even a series. Since 2011 and for the foreseeable future, this is just a rad event in a few different regions across the country that we've been curating for well over a decade now and it's still growing. We as a team are always learning and improving. The Drift Challenge has become a staple for one of the largest automotive events in the country – Holley LS Fest.

It's a privilege for all of us to be a part of the event so, let's take care of ourselves and let's take care of one another.

If you go to the great lengths to spend the money on and dedicate the effort to building a competitive drift car that passes this Tech and Safety Inspection, do the same for yourself. Gear up with the right safety equipment. Some of the Holley brands carry exactly what you need! Spending a couple grand and sweating a little more is way cheaper and easier than getting injured or burnt. Plus, everyone looks cooler in a racecar with a driver suit and rad helmet.

The most important part of any race program is you, the driver. Get a suit, get the proper helmet, get the gloves, the shoes, the undies, get a HANS or something similar. Don't show up with corny knock-off seats and janky harnesses. Don't show up with a booger welded cage that is more dangerous than a car without a cage. Don't show up with no bumpers or fenders. Paint your *whole* car. Take pride in what you've built, we do. We take pride in the Drift Challenge and we take pride in you, the drivers.

Thank you for being a part of the Holley LS Fest Drift Challenge!

Nick Swann

The logo for Holley, featuring the word "Holley" in a bold, red, italicized sans-serif font.

