SWEETWATER SMASH AND BASH
LIMITED WELD RULES

All Officials discretion and decisions are FINAL!

PARTICIPANTS AND SAFETY

1. DO NOT do any more than what is stated below.
2. Participants aged 16 and over. Participants under the age of 18 must have a signed and notarized parental consent from both parents to participate.
3. Safety equipment includes helmet with face shield, neck brace leather shoes and leather gloves required. All participants must wear long sleeve and long pants in cotton material. FRC clothing recommended.
4. All participants must be able to pass inspection before allowed to derby. You will have TWO (2) chances to pass inspection. If you DO NOT pass, you will forfeit your registration fee.
5. Driver's door must be painted a contrasting color.
6. Both front doors and the roof MUST have the driver name and number clearly VISIBLE and LEGIBLE. Numbers must be at least eighteen (18) inches high and two (2) inches wide.
7. IMPORTANT NOTE: Post-race inspection might be necessary. All items will be re-inspected along with any other areas that may have been invisible during the initial inspection. We emphasize that you need to build your car to the rules before you are in the inspection line, and then continue to build/fix your car to the rules after the heats you run.

GENERAL PREPARATION

1. BUILD TO THE RULES! Do not over build and expect to be able to run. If your car is altered in any other way than what is specified in the rules, then you may fail inspection and not be allowed to compete.
2. The original passenger car frame, body, clip & core support must be used from the year, make, and model of that car.
3. All glass, plastic, and pot metal must be removed. Nothing may remain in the bottom of the trunk or doors. Rear seats in all cars must be removed. Additionally, all outer hardware must be removed. Including, but not limited to, door handles, mirrors, chrome, moldings, screws and fiberglass. All flammable materials must be removed from the car. This rule excludes your safety padding and the driver's seat. All trailer hitches must be removed.
4. If the vehicle is equipped with air bags, they MUST be REMOVED.
5. Front seats must be securely bolted or welded to the floor. IF you choose to bolt, then the bolts may NOT go through the frame!
6. Seat belts are MANDATORY! Must be securely mounted with a working latch, NO tying together. 5-point Harnesses are allowed and must be safely secured.
7. You are not allowed to drive '03 and newer FOMOCO, '73 or older Imperials, LeBaron's, Ambulances, Hearses, Convertibles or Limousines.

8. You may be asked to remove any paint on the car or frame.
9. You may be loaded for body and/or frame seam welding or plating.
10. **Accepted Aftermarket parts:**
    a. **Metal gas tanks, transmission coolers, fuel coolers, brake & gas pedals, shifters, battery boxes, steering columns up to the steering box, drive lines, driveline brakes, tie rods (see specification below), lower saddle cradles, motors, adapter plates for BOP transmission to Chevy block, seats and seat belts, steel tail shafts, transmission tail mounting bracket (see pic) and transmission pans.**

CAGES & DOOR BARS: SEE Diagram on Last Page

1. Cage material must not be inside the doors, but rather within the seating area of the car.
2. Overall cage length may not exceed 62”. The length includes side door bars, rear seat bar, dash bar and halo.
    a. All halo, door bars and down bars must be even with or inside of the dash bar and rear seat bar.
3. Dash bars must me a minimum of 6” from the fire wall at the center.
4. All bars must be straight.
5. Gussets are allowed on each corner.
6. There must be 4” between the cage and all floor sheet metal, including the transmission tunnel and with the exception of down bars.
7. You may only have 2 down bars attached to each side bar. Down bars must be vertical without covering up any of the body mounts. This rule applies to the halo bar if you run it to the frame or floor. DO NOT ANGLE BARS.
    a. All down bars may only be welded to the top of the frame or sheet metal. If you only weld to sheet metal may you use a 2” x 3” plate.
    b. Maximum front down bar size is 2”x 2”.
    c. All down bars must be within the 62” side length.
8. You must have a vertical roll loop/Halo, rear seat bar, or uprights. They must be behind the seat above the rear seat bar.
    a. It is suggested that you attach the roof bar to the roof, if doing so no more than 6 inches may be attached to the roof.
    b. Rear seat bar upright post must be attached to the roof by plate, welded or bolted in. Max plate size - 10”x10”.
    c. Rear seat bar upright post must be mounted vertically and in such a way that it will not bend. (Ex. Gusseted)
9. Gas tank protectors are allowed but they cannot be attached to anything other than your seat bar.
    a. It must be centered between your frame humps.
    b. It cannot exceed 30” O.D. in width and cannot exceed the top of the gas tank by more than 4”.
    c. ALL gas tank bars must be 4” away from **ALL** sheet metal and rear window bars. Follow the angle of the rear seat sheet metal. Note that the sheet metal cannot be removed or altered to achieve this.

d. You may use one 12” horizontal gusset, per side, that goes from the seat bar to the protector.
e. The gas tank protector may not be ANY MORE THAN the picture on the last page. Follow all cage to sheet metal distances listed above and below.
f. If driving a station wagon, then the rear of the gas tank protector must be within 30” O.D. of the seat bar.
g. Gas tank mounting plate must not exceed the size of gas tank and must be 4” from all vertical sheet metal.

DOORS

1. Only the exterior door seam sheet metal must be welded using rolled rod or a flat strap no bigger than 3” wide by 1/4” thick.
2. You may bend the inner and outer door skins together and weld them solid with no bigger than 3” wide by 1/4” flat strap. Strap may be used on door window openings only and may not exceed them.
3. On the driver’s side, the front windshield may have window fabric netting or chicken wire type material for driver’s safety.
4. None of the other “non-roll down” windows may have netting, welding, bolts, wire, etc.
5. Drivers door may have a plate covering the exterior footprint of the door only. The plate may not extend no more than 6” past front and rear door seams.
6. Tailgates on a station wagon are considered a trunk lid.

BUMPERS

1. Please note that the intention of this rule is to allow you to mount the bumpers in such a way that they are less likely to fall off. If at inspection, the officials determine that you have exceeded/overbuilt the intention of the rule you will be able to correct and compete. Like stated above, if you are not willing to correct your build, then you may be disqualified.
2. Any bumper may be used but must appear to be close to original passenger car stock and size.
3. No chrome may be welded to the body of the car if using compression style bumpers.
4. Non-compression bumpers may be welded to the exterior painted sheet metal only using up to 3” x 1/4” flat straps.
5. For the front and rear bumpers, you may not use more than two flat straps up to 3” x 1/4” x 36” long from top side of sheet metal or top of core support to bumper. You may also use #9 wire in place of straps.
    a. Only the **last** 8” of each end of the strap may be welded.
    b. Straps or #9 wire must be within the frame rails and may not connect to each other.
    c. If using #9 wire you may use up to 4 wraps of wire twisted same length and position requirements with a nut being welded to bumper and top side of sheet metal or top of core support to run wire through.
    d. #9 Wire or Straps may go over the all thread.
6. Ways to mount the bumpers - You have 2 options for mounting the front or rear bumpers. Pick one, only!

a. Use the stock bumper bracket or brackets and shock tubes for that car in the exact location and manner they were intended to be in from the factory and weld the first 10" of them measuring from the back of the bumper. Do not add metal. You may not swap bumper brackets and or shock tubes/beams.
b. Remove ALL the factory brackets and shock tubes and in its place weld a 10" x 4" x 1/4" flat plate to the side of the frame and weld it to the backside of the bumper.
    i. You may only square up the end of the frame to mount the bumper, do not shorten the frame.
    ii. You may mount your bumper however you want within the first 6" of the frame. It may attach to the frame only.
    iii. Frame rail must only be mounted to the exterior of the bumper. It may not be "shelfed."
c. The maximum height of the front bumper is 22" from the bottom of the bumper to the ground, the minimum height of the rear bumper is 15" from the bottom of the bumper to the ground.
d. **On cars equipped with factory compression style bumpers you may compress the bumper shock tubes and weld them back but don't touch anything beyond 10".

FRAMES

1. You cannot weld more than the first 10" of the front and rear frame/unibody rail seams.
2. You may only square up the end of the frame to mount the bumper, do not shorten the frame.
    a. Exception: 80's Lincoln's & Mercury's may shorten the frame to match the length of an 80's Ford.
3. Frames/unibody may be notched or dimpled between the 2 rear frame mounts. Do not manipulate the frame anywhere else than where specified.
    a. All of the frame must be in factory location.
    b. Frame/unibody rust is to be handled on a case-by-case basis with officials. Send pictures and you will be told if you can fix it or not and how.
4. Impala frame horns that hold the shock tube are considered part of the frame.
    a. Frame horns may not be relocated or used on a non-impala car.
    b. Frame horns can be rewelded over the factory attachment points on an Impala.
    c. If you keep the shock tube in the frame horn, you may not use 10" x 4" x 1/4" flat plate.
5. No changing, welding, doubling, or removing of the rear package tray.
6. Chrysler Cordoba k-framed body mounts must remain stock.
7. Absolutely NO other cutting, tilting, welding, shaping, bending, adding to or altering the frame/unibody in any way other than what is specified. Y-Frame cars must run as originally configured.
8. ****If it does not say you can do it, then CALL FIRST! THIS MAY BE CAUSE FOR DISQUALIFICATION.**

HOOD, TRUNK, BODY, FRONT CLIP AND CORE SUPPORT

1. Body
    a. Roof sign: Cannot add structure to the roof or pillars. If suspended from Halo, it must have a 2” clearance between roof and bar.
    b. The original passenger car frame, body, clip & core support must be used from that year, make, and model of that car. It must mount in the original position.
    c. Factory or after-market body mount must be in place. There must be a min 1/2” space between the frame and body. If using aftermarket body mounts, they must be 1” tall and factory diameter. Absolutely no body mounts may be relocated, added, or welded in place.
    d. You may remove all body mount bolts and replace with 1/2” bolts with 2 1/2” washers on either side. Bolts must be up inside of the frame. Nut and washer may be on top of the interior floor sheet metal. Core support body mounts and bolts may be removed for all thread.
    e. Body may be creased, but no collapsing or wedging of rear quarter panels or taillight/sail panel.
        i. We will allow a 6” inch well/dip from the top of the quarter panel to the trunk lid. The 6” rule also applies to dove tailing/canoeing, you may cut out sheet metal also.
    f. All interior wagon body panels must be removed.
    g. The firewall may not be manipulated or shaped. However, the center of the firewall may be removed for distributor/coil pack clearance.
    h. Exterior Suicide Lincoln fenders may not be welded.
    i. You may cut wheel wells for tire clearance.
    j. Sheet metal rust repairs will be allowed on the interior of the floor and the exterior of the rear pillars only by using sheet metal of the same thickness as the body. These repairs may not exceed the rust by more than 2”. NO skinning of the entire floor.
        i. This applies to, but not limited to, the driver seat & foot area, battery and gas tank mounting areas only. Nothing up the doglegs or excessive or it will be removed completely.
        ii. Rust repairs will be verified at time of inspection. Take pictures of damaged area and be ready to present them to the inspectors.
    k. No welding or bolting of created seams.
2. Fenders
    a. Fenders may be rolled but not welded. 6 - 3/8” bolts with 1.25” diameter washers above tires may be used. You may wrap your fenders around the front of the core support, but do not exceed 4 - 3/8” bolts with 1.25” washers to bolt back to the core support of fender.
    b. No welding or bolting of created seams.
3. Radiators core support
    a. The original passenger car frame, body, clip & core support must be used from the year, make, and model of that car.

b. Must be in factory stock location. Front core support cannot be moved back from its factory location. It must stay bolted to the fenders the same way that it came from the factory.
c. Two radiator support mounts can be removed completely for All thread use.
d. Radiator core support seam welding is NOT allowed. Only slight modifications due to bumper brackets for mounting core support back into the original position is allowed, Officials discretion.
e. Radiator supports may not be welded to the frame, bumper brackets, bumpers or anything else.
f. Bumper side of radiator core support may have expanded metal NLR type protector up to 1/8" or old condensers for protection. It may cover the radiator only and may not cover the entire core support. It may only be wired in using 6 attachment points or a maximum of six 1" welds.
g. You may use one all thread per frame rail/unibody. It may go from the hood to the frame but must go through the front body mounts & be nutted and washered or be welded to the exterior of the frame/unibody. Either option must be within 1" of the core support. The washer used to secure the top of the hood can be up to a 5" washer (that must be on top of the hood) one per all-thread may be used.
h. If you have to build core support spacers, you may only weld the bottom 3" to the frame. Core support spacers cannot exceed 6" vertically in length and 3" in width.

4. Hood & Trunk
    a. Hood and trunk lid must be in stock location.
    b. Hoods must be able to open for inspection.
    c. Tailgates on a station wagon are considered a trunk lid.
    d. Two (2) 10" holes for fire access and inspection must be in the hood & trunk.
    e. No welding or bolting of created seams.
    f. Bodies may be creased. No collapsing or wedging of rear quarter panels.
    g. HOOD
        i. Hood must be open for inspection.
        ii. You can fold the hood over.
        iii. Any cut outs or folds in the hood may be bolted back together with 3/8" or less bolts and 1.25" diameter washer. You are not allowed more than a total of 14 bolts to pinch the hood sheet metal back together.
        iv. You are allowed to attach the hood in 8 places. These attachments do NOT include the 1" all-thread to the frame. All other attachment points must be sheet metal to sheet metal only.
            1. You may mix and use either of the following ways to attach your hood, but no more than 8 points (4 per fender) may be used.
                a. Bolting with a Single Through Bolt - Bolts 8" x 1" MAX with two 5" washers per bolt. Washers may only be welded to the inner fenders and to the HOOD. These cannot be welded across the hood fender seam.

b. Bolting with Angle - Up to 2 - 5” individual lengths of angle iron 2” x 2” x 1/4” may be welded to the body back to back and bolted together with one or two bolts. These cannot be welded across hood fender seam.

5. TRUNK
    a. Trunk may be welded with 1/2” round stock or up to 3” x 1/4” flat stock.
        i. Flat stock must be flat on the outside of the seam, not vertical in the seam.
    b. Trunk may have up to 1” all-thread per frame rail or unibody vertically. Must be located on the straight part of the frame rail between the rear bumper and the first upcurve of the hump. All-thread may go from the trunk lid to the frame but must go through the body mount hole. OR the all-thread may be welded to the exterior of the frame or unibody.
        i. If you choose to use a body mount hole for your trunk all-thread, this does not have to be up inside the frame.
        ii. One 5” washer per all-thread under the frame and top of trunk lid may be used.
    c. Trunk may be tucked and/or dished. The top of the trunk lid can be no more than 6” below the top edge of the vertical quarter panel when measured anywhere from fender to fender.
    d. We will allow a 6” inch well/dip from the top of the quarter panel to the trunk. You may cut out this sheet metal also.

ENGINES TRANSMISSIONS & REAR ENDS

1. Engines may be swapped. **You are not allowed to manipulate the firewall to accommodate different motors.** The rear of the motor block (not the heads) must start in front of the vertical section of the firewall. Inspectors want to see a **gap** between the rear of the motor block and the vertical section of the firewall.
2. Transmission cannot use after-market bells.
3. Mid plates are not allowed.
4. Lower damper pulley protectors are allowed. However, the protector may not come in contact with the frame, sway bar, core support, or anything structural.
    a. The only time a lower damper pulley protector may touch something is if you are FUBAR. If it is determined that the protector was used as a wedge you could be disqualified.
5. If you are running an engine mounted fan, the hood must cover the fan itself. No metal fan shrouds are allowed.
6. If you are using factory stock lower motor mounts, the motor may only be secured from the block to the engine cross member using a chain or cable. You may only have one chain or cable per side. No welding or bolting the chain or cable to the frame rails.
7. If you are using an engine saddle type cradle (see picture below), you may use aftermarket pads OR two pieces of 2” x 2” x 6” square tubing as lower motor mounts.
    a. Your motor mounts can only be welded to the engine cross member.

    b. If no pads are used, then the cradle may only be welded with 12” of weld or bolted to the factory engine cradle, NOT the frame.
    c. You may not use any straps, cables or chains to secure your motor.
    d. Cadillac’s may only weld up to an 8” x 8” x 1/2” plate to the engine cross member to mount the lower pads. These Cadillac plates must be a minimum of 2” away from the frame rails.
8. Header’s may be braced. One can be located above the carburetor or in front of the headers. Do not attach to anything other than the motor or cradle.
9. ANY 5 lug NON-braced rear ends may be used.
    a. You can add factory or aftermarket style ears close to the factory size. If it is determined that the ears are adding structure or strength, then you may be asked to cut them.
    b. **No** axle savers.
    c. **No** 8 lug to 5 lug versions.
    d. **No** trailing arm conversion brackets.
    e. If you are mounting a driveline brake, it may NOT brace the rear end in any way. Your car must be able to stop.
10. You may have a plated transmission pan, but the pan must be within 1” of the factory pan size.
11. B.O.P and LS cradle adapter plates cannot be any larger than the O.D. of the bell, or at least within 1” of engine block transmission mounting pattern. (See picture below)
12. A 2” x 2” x 1/4” thick tube may be used in place of the original stock transmission cross member. But the tube may only mount to the original factory location. The tube can be attached to the frame by bolting or welding using up to 2”x 2” x 1/4” x 6” long angle iron AND must be centered on the square tube.

SUSPENSION AND STEERING

1. Stock passenger car center links, springs, spindles, upper and lower control arms, and rear trailing arms from passenger cars must be used.
    a. No hydraulic steering allowed.
    b. Shocks must be workable. No all-thread shocks allowed.
    c. No watt’s conversions allowed.
2. Do not reinforce or modify the front A-Arms.
    a. You can use chain or plate only to tie you’re A-Arms down.
    b. If using plate, a total of 2 plates per upper A-Arm. This means one on each side of each upper A-Arm. The plates can be no larger than 3” x 3” x 1/4” plate to weld down you’re A-Arms, and the plates must be square in shape. Any larger plate may be cause for immediate disqualification.
    c. If using Chain, a total of 2 chains per upper A-Arm. This means one on each side of each upper A-Arm. you can use no more than 7 links of 3/8” standard chain. Only the end links can be welded to the frame and A-Arm.
3. Ball joints may be swapped out with factory replacement O.E.M style parts for that A-Arm. The ball joints must be from big box store. No welding of ball joints.

4. Pin tie rods and ball joints must be an O.E.M. tapered style. No heim joints or bolts can be used on any steering or suspension components. This rule excludes steering columns.
5. Sway bars must remain in stock position and only bolted to the frame using factory hardware and bolted to lower control arm.
6. Only use stock leaf springs from passenger cars.
    a. No more than 7 - leaf's may be used per side. Leaf's must have a minimum of a 2" stagger decreasing from leaf to leaf on both sides of axle.
    b. Four (4) - clamps per leaf pack. Clamps cannot be wider than 2".
    c. Leaf's may not be shortened and must be mounted in the factory location of the car you are running.
    d. No leaf spring to coil spring conversion or vice versa.
    e. Spring shackles may be homemade but must be stock size and thickness located in the original factory location.
    f. No duct taping of leaf springs.
7. Lower rear trailing arms may be shortened by cutting them in half and overlapping them. The trailing arms can only be seam welded.
8. Coil springs can only be welded to the axle.
9. In order to raise car suspension, you may ONLY use tires and springs and twist-in spring spacers in the suspension. NOTHING can be inside the spring bucket other than the spring! ALL spring spacers must be below the spring bucket/frame and may not be welded to the spring bucket or frame. No solid wound springs may be used.
10. Chaining of humps is optional, if doing so you may only use 1 chain single wrapped per frame rail. The chain may not be welded to the frame. The chain can go thru the body, but the chain or washers may not be welded to the body.

WINDOWS

1. You cannot have more than 2 window bars on the front and rear windows. Bars must be at least 16" from the window pillars.
    a. Station wagons may not have rear tailgate/window bars. Tailgates on a station wagon are considered a trunk lid.
2. Bars can only be attached by welding directly to the sheet metal. Bars cannot have more than a 4" area footprint.
    a. Trunk window bars can only be mounted within the first 4" of the rear window seal or inside the speaker deck.
3. A tailgate on station wagon is considered a trunk lid.
4. Window bars may not be attached to the halo bar or any cage components.

RADIATORS, RADIATOR SUPPORTS

1. The original passenger core support must be used from the year, make, and model of that car.
2. Radiator must be attached to the core support in original stock location and position.
    a. Radiator may be mounted in such a way to hold the radiator in place, not strengthen the core support.

i. When mounting radiators, you may use up to 4 - 1/2” all-thread. The all-thread may pass through the bottom and top of the core support.
ii. If you have no lower or upper mounting areas, you may attach 4 - 2” x 6” x 1/8” flat steel on the top and bottom. The flat steel must be welded to the core support.
iii. If welding radiator in place, you may use 4 - 1” welds, one per corner.
iv. DO NOT add metal to mount the radiator other than what is specified above.

b. Bumper side of radiator core support may have expanded metal up to 1/8”, NLR type protector up to 1/8”, or old A/C condensers for protection. Whatever protection you choose may only cover the footprint of the radiator. Radiator protection cannot cover the entire core support. Your protector may only be wired in using 6 - attachment points OR a maximum of 6 - 1” welds.

3. You may not add additional cooling capacity.
4. Electric fans are allowed.
5. No spray foam fill.

FUEL DELIVERY SYSTEMS

1. Original gas tanks must be removed.
2. A metal marine type tank, metal fuel tank, or derby type metal fuel tank **is required**.
2. Place fuel cell behind driver’s seat or in the center of the car where the back seat used to be. Must be securely mounted behind the driver’s seat to the sheet metal or you may suspend it on your cage, **but the tank may not be attached to both**. Tank must be mounted with bolts, metal straps, or chain. Do not use seat belts or pull tie straps to secure gas tank. You cannot have another source of gas/ether inside the car at all.
3. Use a maximum of 10-gallon tank, and the tank must fit within gas tank protector specs (specs can be found in cage section).
4. Fuel lines must run inside the car, not under the car along the frame. Fuel line must be inside a protective line within the engine compartment.
5. Tranny, oil, and fuel coolers are allowed. These coolers cannot be placed to reinforce the car. No bolts can extend through the frame to create a body mount.
6. If you are not using a gas tank or transmission cooler protector, the fuel cell and transmission cooler must be 4” away from the rear sheet metal. So, either way, protector or not, nothing can be within 4” of any sheet metal.
7. **IF USING AN ELECTRIC FUEL PUMP, YOU MUST BRING IT TO INSPECTORS ATTENTION AT TECH.**
8. Electric fuel pumps are allowed. The on/off switch must be easily accessible and clearly marked with bright paint.
9. **If running alcohol, you must have the die added for your safety.**

BATTERIES

1. Batteries must be secured inside the car and covered, unless you are using a gel cell battery.

2. Battery box must be made out of metal! It must be bolted to the floor. Bolts may not go through or around the frame. Seat belts or pull type tie downs may not be used to secure the battery box.
3. If you have rusty floors, follow rust repair rules.

TIRES & BRAKES

1. Air filled tires only.
2. You must start with a stock wheel.
    a. No bead locks or full wheel centers.
    b. You may have a 2" rim guard on the exterior non engine side of rim lip only.
    c. Small wheels centers can be no larger than 8" wide.
    d. Valve stem protectors are allowed.
    e. No wheel weights.
3. All cars must be able to demonstrate the ability to stop at any time. If your brakes do not work, you will not compete.
4. You may not change tires after inspection without official's consent.

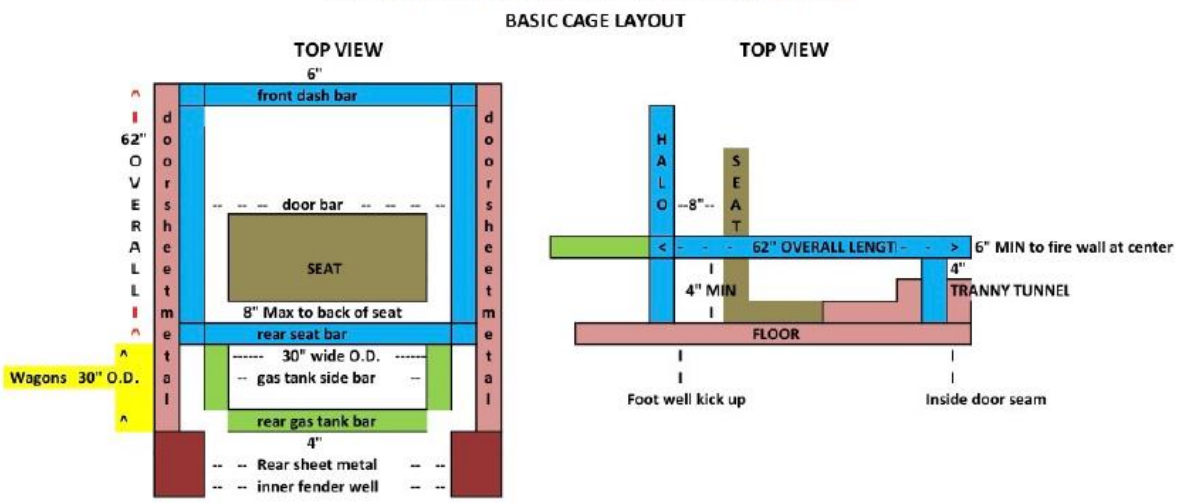
AIR CLEANERS

1. You must have an air cleaner over the carburetor at all times during the event.

REPAIR RULE for PRE-RUN/FEATURE/GRUDGE MATCH

1. No 9 wire may be used for repair.
2. No Sedagoning at any time is allowed.
3. Can only use 8 - plates not to exceed a 6" x 4" x 1/4" area anywhere on the exterior of the frame. Do not attach plates to the body.
4. Plates may be bent and cut, but excess may not be used elsewhere.
5. Plates and welds must be separated by 1". Plates may not be welded to the body or any other bolted on frame components.
6. You may weld torn frames that are close enough to be welded with a single weld pass, using no additional metal.
7. You may patch any hole in the doors of the car for SAFETY, only.
8. You may only reinforce damaged steering components on pre-run cars using one piece of 1" x 1" x 1/8" angle iron, but you must use factory type and strength parts unless otherwise specified in Suspension and Steering section above.
9. No frame wedge blocking or shaping.
10. Re-stubbing is allowed, but it can only be re-stubbed at the transmission crossmember using butt weld. You can only use the car stub of the same make and model you are fixing.

SEE CAGE & CRADLE & GAS TANK PROTECTOR PIC'S BELOW



Sample lower saddle cradle

sample transmission adapter plate

Sample Gas tank protector: Note ALL components must be 4" from sheet metal.

Tail shaft mounting bracket