

# 2022 WGAS Full Size Demolition Derby Rules

No 73 or older Chrysler Imperials, Imperial Sub frames, Limousines, **Convertibles**, Lebarons, Ambulances, or Hearses allowed. Please call if you have a question! 03 fords are encouraged.

**Nothing** other than what is listed below is allowed!!!! Any frame pinning, plating or welding is grounds for immediate disqualification without a chance to fix it. Do not push the gray area!

## Aftermarket Derby Parts that will be allowed:

Transmission Cooler, Gas and Brake Pedals, Shifter, Steering column, Transmission Bell Housing, Drive Line, Drive Line Brake, Yokes, Gas Tank, Battery Box, Carb Halo, Lower Cradle with Front Plate, Body Spacers, Lower Pulley Protector and Engine Mounts.

We will not allow transmission protectors

### General Preparation:

1. All glass, plastic, stock gas tanks and pot metal must be removed. Nothing may remain in the bottom of the trunk or doors. Back seat must be removed. **Station wagons must remove decking.**
2. Mirrors, chrome, moldings and anything flammable except driver's seat must be removed.
3. All trailer hitches and related parts must be removed.

### Safety

1. Driver's seat must be bolted or welded securely to the floor board.
2. Must have a functioning seat belt! Lap belt only is ok.
3. Pad inside bars around driver. A 3/8" thick plate can be put inside **or outside** the driver's door only.
4. Helmet, gloves and eye protection are required
5. Fire extinguishers are mandatory for your pit stall but optional in the car. If in the car they must be securely mounted.

### Cages

1. All Cage material must be no larger than 8" O.D. unless specified smaller by a specific rule. A square cage around the driver is required and must only be welded to the A and B pillars. See diagram at the end for pictures.
2. Door Bars can be a max length of 68" **long including the seat and dash bar.**
3. Dash Bar must be at least 3" off the tranny tunnel **and 6" off of firewall.**
4. Halo bar above the roof or up bar are required. Halo must be made from 2"x2"x 1/4" or similar material. Halo can run down to floor board **and be welded to it. No leaning bar back, must stay perpendicular with the frame.**
5. Gas Tank Protector- Max 3" x 3" square bar, can't touch or be attached to anything but the back bar. It must be centered between the frame humps and the outside dimension cannot be more than 38" wide. The Bars must be more than 6" above floor. **Must slide paper behind it for inspection. Gas tank protector may have its own halo but cannot be taller than the tank itself and may not be angled out the back window. It may have gussets but must gusset to tank protector only.**

### Body

1. Outer door seams must be welded shut. You can use 3"x1/8" max strapping or 1/2" rebar for filler.
2. **Hoods must open for inspection.**
3. Hoods can be secured using: six lengths of chain or six locations of 5" long pieces of 2"x2"x 1/8" angle iron welded back to back with a max of 2 bolts through them. (any placement)
4. Bodies can be creased with hammer only to help control the bend! Trunk lid must remain in stock location and can be **dished** or tucked **and may not attach to trunk floor or inside of the quarters.** Quarter panels and tail light

panel **must exist** and need to remain upright. **No wedges.** Trunk lids can be chained with 6 chains or welded shut using 6 total 6" long 3" wide 1/8" thick strapping pieces. There must be a 12" diameter inspection hole in the center. **For 2022 if you do not have a hole in your trunk we will send you back to your pits to cut one and you'll do 25 pushups.**

5. There must be 1 or 2 vertical bars (2"x2"x39" max) **or chain** in the center of the windshield area welded from firewall to the roof. Rear window bars are max of 2 (2x2) **and need to be 6" off of the pillars.** Window bars can only attach to the sheet metal or be attached to 3"x3"x1/4" landing plates that are welded to the sheet metal on **the top and bottom.** **Plate and trunk strap may share the same weld.** They can't be on top of the trunk lid or touch it in any way. Rear window bars can be attached to the halo except on wagons.
6. **Wagons-** Window bars can be attached to the top of the tailgate and to the roof. Tailgates count as trunks for welding shut.
7. No adding body bolts! Only stock locations can have bolts. Body spacers can be removed **or replaced with 1" inch spacers** and body bolts can be changed to 1/2" bolts, 3" washers and nuts can be used on top of body bolts. **The front 2 and 2 in the trunk** can be replaced with up to 1" all thread that runs up through or **immediately** next to the stock mounting holes, through the body and through the hood and trunk lid. It can be welded to the side of the frame or bolted on the bottom and top of the frame. 4" plates on all thread max.
8. **6" max gap** between core support and frame and it can be filled with a 2"x2"x6" O.D. tube welded on bottom side only. **Do not remove or modify the core support hole and/or mounting tab. If you cut it off you will weld it back on.**
9. You may clearance fenders/quarters and bolt them back together using four 3/8" bolts only.
10. You may re-bolt hood and trunk skins. 10 bolts maximum each. **Sheet metal to sheet metal only.**
11. **NO seam welding unless stated** of any kind!!!!!! (frame or body) **No welding created seams.**

### Bumpers

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. Upon inspection if it is determined that you have exceeded the intention of this rule you will be given a chance to correct it. If not corrected you will be disqualified.

1. No loaded bumpers of any kind **and they cannot go on top of the frame, must remain in front.**
2. Bumper swaps are allowed and they must be O.E.M. off a stock production car.
3. Tube bumpers are allowed, Max size is 5"x5"x1/4" wall. They must be straight and **cannot have a point added.** The ends can't stick out more than 10" past the frame and have holes to **see in both ends.**
4. Bumpers may be flipped and cut shorter. Maximum 20" from ground to lowest point.
5. Bumper skins can be hammered down and welded to inner box.
6. Front bumper: You can weld two 2" wide x 3/8" thick straps from bumper to core support. 1" all thread can run through them.
7. Rear bumper: You can weld two 2" wide x 3/8" thick x 30" long from bumper to trunk lid. The 1" all thread can run through it.
8. Mounting the bumper: no other ways then what is listed below!
  - Stock to the car bumper brackets and shock tubes must stay in the stock locations and may be welded to the front 10" of the frame only. Compression shocks can be collapsed and welded together.
  - Or remove ALL factory brackets and shock tubes and, in its place, use a 10"x4"x1/4" flat Plate welded to the outside of the frame. **Formed plates are ok however it must have started as a 4" plate.** You can cut the frame square to weld the bumper on but you can't shorten the frame. **You may add filler material to the ends of the frame to achieve this. Call if you have questions. 80's up Mercury's and Lincolns can cut back to the point of a ford. Don't not cut the body mount tab.**
  - Pre 1974 single skin stock bumpers can be welded to the body.

### Frame

1. No buffing, grinding, packing, cutting, bending, or welding the frame other than what is specifically stated in the rules. **Do not pre bend the frame or the body.**
2. **80's and newer cars only** can tilt the front frame rails down at the fire wall seams only, no added metal. **80's and newer cars only** can weld 1 fix it plate on each frame rail sized to 4"x6"x1/4" on the outside of the top center of the hump only per before the derby. These will not count against the repair plate rules.
3. You can notch and dimple any frame behind the rear frame humps only!
4. No seam welding of any kind!!! Unless specifically stated. (Frame or Body)
5. Cadillac **and Ford** front frame extensions can't touch the transmission cross member before, during or after the show unless it's **mounted in the stock manner. Nothing may restrict their movement.**

### Drive Train

1. Engines must remain as close to stock location as possible. A hole can be cut for the distributor.
2. Carb halo is permitted but it may only do exactly that. Must stay inside the headers and terminate just on the back side of the carb.
3. You must have an air filter or spark arrester on your car.
4. You can use aftermarket motor mounts and a lower cradle to hold in the motor. If using the stock upper and lower motor mounts, you may use 4 chains from motor to frame. The chains cannot go more than 4" past the manifolds.
5. **Steel or replacement aluminum bell housings on transmissions are permitted however no other transmission protection is permitted.** Slider drive shafts are optional.
6. Transmission cross members can be stock or 2"x2"x1/4" O.D. straight square tubing.
7. Headers through the hood are highly recommended. You also need to cut a hole big enough to get a fire extinguisher into the hood over the motor.

### Rear Ends

1. Any factory 5 lug rear end of passenger car origin may be used. No braced or truck rear ends allowed. (drive line brakes do not count as bracing **but beware that the mounting doesn't turn into bracing or you'll cut it all off**)
2. Hybrid rear ends allowed (putting Chevy into Ford or vice versa). **Must use factory brackets on rear-ends.** Rear end gears may be changed. Gears can be welded or posi'd
3. You may shorten the upper control arms to achieve pinon angle by cutting and over lapping then welding back together only! No plating or reinforcing of control arms at all!

### Suspension

1. **Rear end suspension must remain working! No changing leaf springs or welding shocks.** It will be checked for bounciness! You can weld or bolt coil springs to the rear end only.
2. **Front suspension and steering must be factory for a car in this class.** Upper a-arms can be welded solid by using two 2" wide by 1/4" thick by 8" long straps per side, straps must be vertical and be welded to the A-arms and side of frame only. **Ball joints must remain stock to the a-arms! No derby ball joints or tie rods, you know what I mean.**
3. 4 leaf spring clamps are allowed, 2 in front and 2 behind the perch. Chaining of humps is optional but you can only use 2 chains single wrapped per frame rail. No welded links. May go through the body.

### Cooling

4. You must use the stock radiator mounting position. Radiators can be switched out to aluminum racing style but must be as close to stock size as possible. Radiators can be removed and the hoses looped.
5. Radiator can only be attached to the core support using straps, wire or a few 1" welds.
6. Stock or plastic fans only. No electric fans unless car came stock with them.

7. You may use a condenser or thin expanded metal to protect the radiator but it can only be attached to the core support. No sewer grates.
8. Transmission coolers are allowed. If in the drivers compartment they must be covered or in a box.

### Fuel

1. 10-gallon max fuel cell placed centered in the back-seat area and securely mounted is required.
2. Any pump gas or E85 can be used and original gas tanks must be completely removed
3. Fuel lines can be run under the body or inside. If inside they must be doubled to keep fuel from leaking into the drivers' area. If you use an electric pump please let us know how to kill it.

### Batteries

1. Batteries must be secured inside car and covered unless using a gel style battery.
2. Max 2 batteries, Battery boxes must be metal and bolted to the floor. No ratchet straps

### Tires and Brakes

1. Any stock passenger car wheels may be used.
2. You may add a 7" or smaller weld in center for switching bolt patterns. You can also weld on valve stem protectors. No other rim welding allowed. **No bead protectors, bead locks or homemade wheels of any sort.**
3. Any air-filled tire may be used. No solid forklift styles. You may put tubes in them
4. All cars must show ability to stop before entering the arena and tech!
5. Drive line brakes will be allowed if you can show that it stops the car.

### Steering

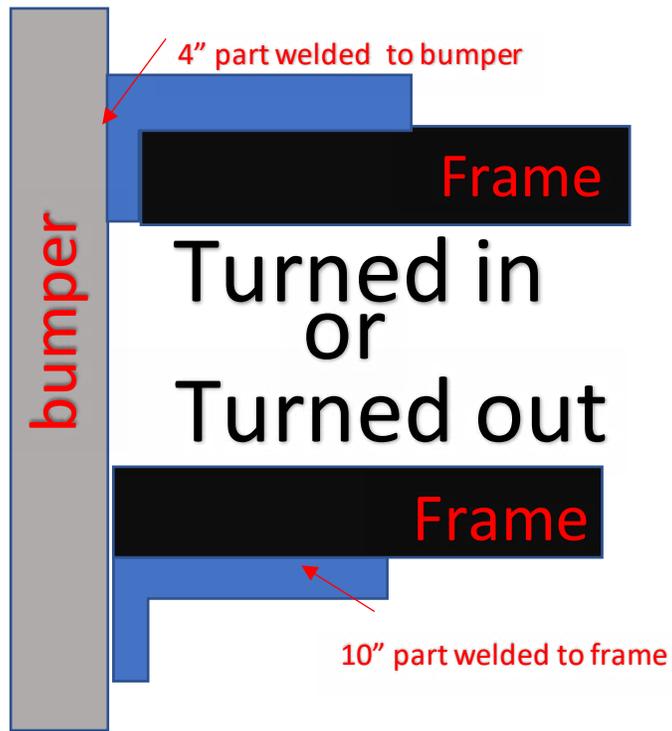
1. Steering components including tie rods must remain stock **to a car in the class**. You can brace the tie rods with 1"x1" angle iron.
2. Homemade steering columns are allowed but must use an OEM stock to a car in the class steering box.

### Pre-Ran Cars

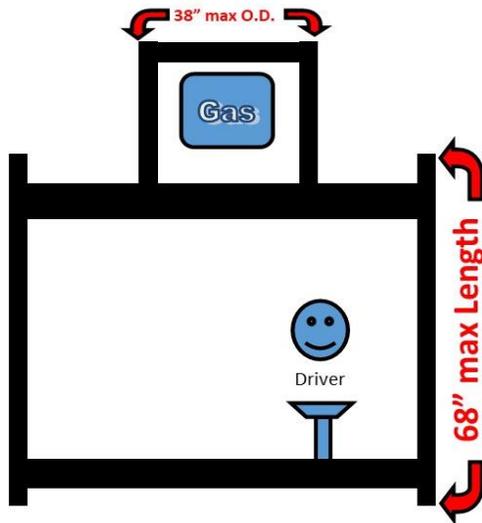
1. Frames may be pulled straight and cracks welded with permission. Makes for light inspection afterwards.
2. You can use **two 6"x4"x3/8"** max steel fix it plates per frame rail that's 4 total. **They can only be welded onto a spot with permission first.** Must be able to prove the bend. **Bubble, crack, bend etc.**
3. **Pre run cars need to be exactly that. Bump and grind in the parking lot isn't a pre run. We all know what it is. If I feel it's not a legitimate pre-run it won't run.**

### Most Important

1. Cars must have no spiders or spider webs on or in them! Be a good sportsman and have fun.
2. Use bright colors on the car (crowds love pretty cars) Cars cannot be all Black! Must have at least 50% different color than black.
3. Numbers must be contrasting color and painted big enough **or utilize a roof sign** for the officials to see from the tower.



### Cage Design



### Halo example

