

# **WGAS Motorsports 2018 Demolition Derby Full Size Car Rules**

**WGAS Derbies are open to any American made passenger car. Full framed Chrysler Imperials {1966 and older\*} are not permitted. No trucks, vans, Suburban's, or commercial vehicles.**

*(\*Note: Some selected events may not allow ANY Imperials. Some events will be 1980 and newer only. These events will be clearly posted on the WGAS web page - [www.wgasmotorsports.com](http://www.wgasmotorsports.com) and on Advance Entry forms. However, these rules will still apply to those events. See Section 18-Exceptions for 80's and Newer.)*

***WGAS rules are designed to offer a fair and unbiased opportunity for all drivers to compete on an equal level, and will be strictly enforced!***

## **Section 01: Car Preparation**

- (a) All glass, including windshield, must be removed.
- (b) Flammable materials inside the car must be removed. These include the carpet, the rear seat, and interior trim including side and roof liners. Trunks must be free from any debris. The inside of the doors must be clear of all glass and debris as well.
- (c) All light covers/bulbs, side mirrors, hubcaps, grills, side chrome, plastic, door handles and pot metal must be removed.
- (d) All trailer hitches, related brackets, reinforcements and hardware will be completely removed.
- (e) Stock fuel tanks must be removed.

## **Section 02: Fuel Systems**

- (a) A limited capacity (of 10 gal. or less) metal tank or boat tank is required as a replacement gas tank. You must solidly mount it in interior of the car, ahead of the rear axle. The tank must be located at least 12" from the inner door panels. The stock tank must be completely removed. If using a metal boat tank, you must have it placed in a metal frame and securely fastened with metal strapping or chain. **NO PLASTIC TANKS!!**
- (b) Gas lines and fittings must be leak proof. No exceptions. Rubber fuel lines located inside the passenger compartment must run through a second larger hose such as a garden hose to prevent accidental spillage on the driver in case of a leak. A hole must be made in the floor board for fuel runoff.
- (c) Electric fuel pumps are optional. If an electric fuel pump is used, you must have an on/off switch that is positioned so that up is on and off is down. The switch must be easily visible and "off" must be clearly marked.
- (d) Gas tanks may not be bolted to the frame in any fashion. Gas tanks MAY not be used as a kicker to keep the frame from dropping or moving forward or backward. *Subject to Tech Approval.*
- (e) Gas Tank protectors may be welded to back bar and run to the rear side of the gas tank. It *cannot* touch the frame in any way!

### Section 03: Batteries

- (a) Batteries must be re-located inside the car. Your battery box must be of metal construction, fully enclosed, and securely fastened to the floor. In NO way may it be connected/bolted to the frame. The lid must be securely fastened shut using 5/16" bolts or 2" straps. (I.e. seat belts). NO RATCHET STRAPS OR BUNGEE CORDS OF ANY TYPE.
- (b) Two (2) batteries maximum.
- (c) Switches or wires used for powering off the car must be within reach of the driver while harnessed in. There will be no acceptable excuse for not being able to turn off your car in an emergency situation.

### Section 04: Safety Bracing

- (a) A front cross brace must be installed above the steering column from window post to window post (in the former position of the dashboard). It must be made of a minimum 2" pipe or square tubing with 1/8" wall thickness and be securely fastened into position. The dash bar in no way may touch or be bolted to the floor or the frame of the vehicle. If a 2-piece pipe is used, it must be securely fastened so that it cannot collapse. (Welded or minimum 3/4" bolt).
- (b) A rear cross brace must be installed from side to side behind the driver as close to the door post (B pillar) as possible, and at least halfway up from the floor. It must be made of a minimum 3" pipe or square tubing, with plates welded on the ends. If the cross brace is collapsible, it must be pinned with a 3/4" bolt (minimum) or welded so it can't rotate. Optional: If floor boards are rusty, you may run MAX 2" Pipe or square tubing over to the inner rocker panel sheet metal. It must be welded, no bolting of this bar! *This bar MAY NOT be welded to the frame!!*
- (c) A driver's door bar and passenger door bar must be welded from back bar to dash bar to make a box around the driver. Bars cannot be more than 15" past back bar.
- (d) All cars must have a minimum of 1 upright (vertical) post. Upright must be located directly behind the driver's seat. The upright must be made of a minimum 2" pipe or square tubing with a minimum 4" x 4" plate welded to the top. The upright will extend from the roof to the cross bar, or to the floor and be located as close to the seat as possible. It must be attached with minimum of two 3/8" bolts on each end. Note: If using a two-piece upright, the female end should be above the helmet level, unless the upright is welded or solidly pinned with a 3/4" minimum bolt. Optional: May add 2nd upright on passenger side of vehicle. Uprights may in no way be connected to the frame. If bar is behind driver's seat it must be padded.

### Section 05: Seat and Seat Belts

- (a) Approved safety harnesses or functioning OEM belts are mandatory. They must be mounted to stock mounts or have a 2" minimum flat washer where it is mounted through the sheet metal.
- (b) Seat can be OEM stock of any make/model car. A headrest on the upright behind the drivers is mandatory if the seat was not equipped with a headrest.
- (c) No fiberglass/plastic racing style seats.
- (d) Any upright bar behind your head must be padded

## Section 06: Building, Welding & Securing

THERE WILL BE NO OTHER WELDING OTHER THAN WHAT IS STATED BELOW. IF YOU HAVE A QUESTION ABOUT WELDING, PLEASE CALL THE HEAD TECH OFFICIAL!! IF WELDING IS FOUND ON THE FRAME OR SHEETMETAL THAT IS NOT SPECIFIED BELOW, YOU WILL BE ASKED TO CUT OR LEAVE!

- (a) Doors: You may fully weld the doors. You may use filler no larger than 2" w X 1/8" t or 3/8" re-bar or equivalent. If bolting the doors shut, you may use up to 4 1/2" bolts per door. If chaining the doors shut, you may use 2 chains, no larger than 3/8" per door. You can skin the front doors with Dimond plate or sheet metal not thicker than 1/4" on the outside. The plates cannot go farther than 2" past the door seams.
- (b) Trunk lids, tailgates and hoods must be secured shut with bolts, chains or welds as follows:
  - a. Hoods can be bolted in a maximum of 6 places other than stock, in which only 2 may go to the frame. Bolt size must be a minimum of 5/8" and a maximum of 1". MAX plate size is 6" x 6". Bolts must not exceed 4" above the vehicle surface. HOODS MUST BE OPENED FOR TECH!! NO EXCEPTIONS!
  - b. Chains must be a minimum 3/8" & maximum of 1/2" welded type. A bolt no smaller than 3/8" & maximum of 1/2", with washers, must connect the chains.
  - c. Trunks may be fastened in a maximum of 6 places using chains, bolts or welds of which only 2 may go to the frame. Welds cannot be more than 6" long or if using flat plates, they must not exceed 6" x 2" x 1/8" in each place. If bolting, plate size cannot exceed 6"x6". All thread (1" max) may go through frame or be welded to the side of the frame. Cars must have an inspection hole in the trunk.
- (c) Front and rear bumpers may be welded in the following way only: bumper to bumper shock, shock to bracket and bracket to frame. No extra metal. *No "hard nosing"!* You can make your own bracket, but must be no stronger than stock. Bumper swaps are allowed. Homemade bumpers will be allowed on the front only (4x4 1/4" wall square tubing only. No added pointy section) Bumpers cannot stick out farther then the fenders.
- (d) Bumper shock itself may be collapsed and welded. No added material.
- (e) You may weld outer skin to inner structure of bumper.
- (f) Frame seams may be welded from the firewall forward. You may only weld the top seam. Width of the weld will not exceed 1/2".
- (g) Bumper height not to exceed 24" from ground at base.

## Section 07: Window, Window Screen

- (a) A protective screen of 1/2" wire mesh or smaller must be installed in front of the driver. A car with a sunroof is allowed as long as the opening is securely covered with sheet metal and deemed safe by tech officials.
- (b) A maximum of 2 3/16" thick x 2-1/2" wide flat stock must be installed down the center of the windshield from top to bottom. Window bars may be bolted or welded with a minimum of 5/16" and maximum of 1/2" bolts. No sheet metal screws allowed fastening window bars.
- (c) Optional rear window bars may be added no more than 6" extension on roof and in no way contact the deck lid, trunk pins, trunk plates or frame. They may be no bigger than 2-1/2"x 1/2" inch thick flat stock. Max 2 each parallel with roof. Window bar(s) will be bolted or welded with a minimum 5/16" and a maximum of 1/2" bolts. No sheet metal screws may be used to fasten window bars. Rear window bars cannot contact the halo bar in any way.

## **Section 08: Radiator**

- (a) No cooling system other than stock is permitted. Radiators and/or fans can be removed. Expansion tanks must remain in engine compartment as close to the stock location as possible. Radiator support or radiator attachment will be no stronger than stock. Tech decision is final.
- (b) Transmission coolers other than stock, if used must be in an enclosed box inside the vehicle. Transmission coolers and all hoses must be double clamped. Any transmission hose inside of car must be double hosed!
- (c) Transmission coolers and components may NOT be bolted to the frame in any fashion. Transmission coolers are NOT to be used as a kicker to keep the frame from dropping or moving forward or backward!! Subject to Tech Approval.
- (d) No bars welded in front of radiator. Hood bolts must be run up the side of radiator if connecting to the frame.

## **Section 09: Motor Mounts, Suspension**

- (a) Motor mounts and transmission mounts may be strengthened with bolts, welds or chains. Motor straps welded to the frame and bolted to the motor are allowed. Straps can be a maximum thickness of 3/8" flat bar and 2" wide only and are limited to 2 straps each side. Engine supports may be used as long as they are not reinforcing the frame.
- (b) Any 5-lug rear end may be used. Rear end may be braced.
- (c) Upper/Lower control arms on the rear end maybe shortened or lengthened to achieve pinion angle. You may NOT reinforce the rear end control arms (trailing arms) or front a-arms.
- (d) Leaf conversions are NOT allowed on non-factory leafed cars. Suspension must remain stock.
- (e) Maximum of 9 leafs. Stock spring hangers only in stock location. (No short stacking.)
- (f) Front may be solid suspension (i.e. weld A-arm to frame).

## **Section 10: Distributor Plates**

- (a) Distributor protectors allowed must be attached to engine and transmission only must be no wider than 10 inches, must not contact dash bar before, during or after the event. If you run a DP do not mount your dash bar closer than 5 inches behind the rear most point of the firewall/cowl. It may not be welded, bolted or connected to body, hood or frame. Forward supports must be inside normally positioned headers and not extend past the water pump.
- (b) If using an engine cradle, it must not be connected to the distributor plate.

## **Section 11: Exhaust**

- (a) Stacks must be a minimum of 18" from exhaust port.

## **Section 12: Carburetors**

- (a) You must have either an air cleaner or suitable flame arrestor. Two large holes, at least 6" in diameter, must be put in the hood for fire extinguisher access. Stack holes are acceptable for fire access holes. No alternative starting methods i.e. starting fluid etc....

### **Section 13: Brakes**

- (a) Cars must have a minimum of two working factory location hydraulic brakes or a driveline brake.

### **Section 14: Tires, Wheels, Tie-Rods**

- (a) Any tire may be used. Doubled and forklifts are ok.
- (b) Wheel wells may be trimmed. No shackles or reverse spring shackles will be allowed.
- (c) Valve stem protection is permitted.
- (d) Tie rods may be reinforced. Must have stock tie rod ends.

### **Section 15: Sign Boards, Numbers.**

- (a) Car numbers must be clearly visible on the car in a contrasting color. Numbers must be a minimum of 18 inches in height.

### **Section 16: Repairing Damaged Cars**

- (a) When repairing damaged cars, you may use Four- 4" x 4" x 1/8" plates per frame rail total. Pieces cannot be any closer than 3". They may not attach to each other in any fashion. Repairs pieces must have an inspection hole drilled in the center of plate.
- (b) You can only plate a part of the frame that has already begun to bend or crack. Do not weld plate to a Frame that is not bent or you will have to cut it.
- (c) Leaf spring mounts must be as close as possible to stock. If frame is bent, pull back to straight and plate.

### **Section 17: Options**

- (a) You may cut firewall for distributor clearance. You must cover with tin or thick rubber material.
- (b) You may clamp leaf springs, 4 clamps per leaf. 2"x1/4" MAX, two 3/8" bolts per clamp.
- (d) Body mounts may be removed. If replacing bolts, you may use bolts/all thread no larger than 3/4", MAX 3"x3"x1/4" washer/plate. Washer may not cover body mount hole on exterior of frame. Must be able to see in the frame. NO EXCEPTIONS!!! In addition, you may add two (2) body mounts. No larger than 3/4" bolts/fasteners. MAX washer size is 3"x3"x1/4". Must be brightly painted for easy viewing.
- (e) You may re-bolt hood skins. 15 bolts maximum. 3/8"max bolt size. 1" max washer size.
- (f) You may re-bolt wheel wells. You are allowed 5 3/8" bolts with 1" diameter washers per wheel well.

- (g) Fire extinguishers are NOT mandatory, although highly recommended. If a fire extinguisher is installed in the vehicle, it must be securely mounted and within driver's reach.
- (h) You may chain the humps. You will be allowed 1 wrap of chain. It may go around the rear end 1 time and up through the body and around the frame 1 time and be bolted together.
- (i) All cars should be brightly painted. - This is for the promotion of the sport.

**Section 18: Exceptions for 80's and Newer (and may apply to all derbies)**

**-These exceptions are designed to give 80's and newer cars a fair chance in an Old Iron derby.**

- a) 1 plate per rear frame hump can be welded to the outside of the top portion. Plate cannot be bigger than (20" x 5" x 3/8") and cannot be touching rear end. (Should be cut out to match frame rail)
- b) Kickers can be welded from dash bar to frame rails. They must be attached to frame 3" or further back from A-arms. (2 x 2 x 1/4 tubing max.)

***WGAS rules are designed to offer a fair and unbiased opportunity for all drivers to compete on an equal level, and will be strictly enforced!***