

## Barrhead Full Size Car Rules & Regulations (No Mini's)

### GENERAL

- Must have working brakes! Brake test will be mandatory before inspection. This is to ensure spectator and pit crew safety in the pits.
- This is a spectator sport!!!!!!
- Absolutely NO SANDBAGGING!!!!!! 1 WARNING THATS IT!
- The safety for spectators, officials, drivers and pit crew is our main concern. Fire, flying debris and impact injuries are also a concern so please keep this in mind when building and working on your vehicles.
- Open to any make or model except the following:  
NO convertibles, T-tops, Ambulances, Hearses, El Caminos, Rancheros, 1973 and older Chrysler Imperials. This includes Imperial sub frames! No pre 1970 Lincoln Continentals. There will be no tolerances to this rule!
- Head Tech's decision will be final!!!
- If there are any discrepancies in your build you will be given ONE opportunity to repair your car. If you are unable to make the changes requested you WILL BE LOADED and your entry will not be refunded!
- If you have any questions do not hesitate to call or contact for confirmation.
- Do not come to inspection if your car is not race ready! This is a waste of our time!!! You must arrive 30 minutes before drivers meeting to compete, unless pre-discussed with race officials.
- There will be no welding on any car except where the rules clearly state.
- There will be no reinforcing except where the rules clearly state.
- If it does not say it is allowed then it is most likely not.
- We understand there are differences in everyone's builds! And everyone builds are unique in their own way!
- A re-inspection will be done before any car advances, and/or any prize money is distributed! Cars can be cut by officials after the main event if needed.
- Head inspection judge can and will disqualify any car found to have direct rule infractions.
- Seat belts are mandatory, a lap belt is the minimum requirement!

- Helmets, eye protection, long pants, are mandatory!
- Drivers compartment padding is strongly recommended! *Windshield pillar and b-pillar must have padding.*
- Drivers door hits are illegal. If deemed careless or intentional by officials, you may be disqualified.

If you use your door as defence, then HOLD ON!

### **Mandatory stripping of cars:**

- All interior must be removed including complete dash board. Anything other than driver seat and seat belts.
- Remove all glass, lights, lenses, mirrors, and hardware. No broken glass to be left in vehicles.
- Remove all body trim, hub caps, and exterior ornaments.
- Remove fuel tank.
- Remove trailer hitch and all mounting components.
- Remove complete interior with exception of the front seat.
- Your car must be clean of all debris and loose objects, including in the trunk area.

### **Frame:**

- No frame reinforcements, shaping, or welding will be accepted other than where stated. Violations to this rule may result in immediate loading without a chance to fix your car.
- You will be permitted to weld the top seam of the frame from the firewall forward with 1 single pass, 3/8" wide. This is only the main seam of the frame up to the backside of the a-arm mounts, and then from the front side of the a-arm mounts to the backside of the bumper/front edge of the frame. DO NOT weld around the engine saddle, the a-arm mounts, the spring bucket, or anywhere that is not the main frame seam as stated above. You may not be given an opportunity to correct this.
- You are permitted to tilt a 1980-2002 FOMOCO at either the crush boxes, or at the transmission crossmember with 1 single weld, 3/8" wide along the required cuts. No overlapping material, and no additional material to be used. Additional/excessive welding will be grounds for loading your car without opportunity to fix it.
- You are permitted to cold bend any "old iron" type car at the transmission crossmember. No welding of any sort permitted. Old iron meaning 1976 and older GM cars, 1978 and older Mopar cars, and 1979 and older FOMOCO cars.

- You may tilt or cold bend at your choosing, any other 1977 and newer GM car (1977 midsize excluded), or 1979 and newer Mopar car. If tilting, MUST follow the same rules as FOMOCO's, 1 single pass, 3/8" wide weld along cut. No overlapping material, and no additional material to be used.

- You may close Y frames and weld closed, no added material, other than what is permitted in bumper rules.

- You may pre kink/notch/dimple frame behind rear wheels ONLY!

- Frame repairs: Only to repair rotted out frames, pre-run cars, or repair at derby.

1: Plate size is 4"x6"x3/16".

2: 10 plates per car, 5 on each frame rail. Only 4 may be used ahead the transmission crossmember per frame rail, plates can be put on new build or pre run.

3: A repair must be visibly required before its allowed.

4: There must be a minimum of 1" space between plates, including the weld. IE, 1" of bare frame between welds on plates.

5: Plates may not be bent, altered, or otherwise modified. They may be formed to the frame rail if not on a straight section. If plates are cut to better fit the frame section being repaired, the excess pieces must be discarded and not used. You may drill/cut one hole in the center of the plate and plug weld it. IF you cut a large hole, DO NOT fill in the center with weld, only weld around the cut edge to anchor the plate.

- Re-stubbing of frame rails is allowed but repair as follows only: straight cut both frames, butt up frame and one single pass weld only, no plating allowed.

- You may swap shocker sub frames into y-frame cars as long as no bracket reinforcements are required to do so! Y-frame subs may also swapped into shocker cars abiding by the same rules.

- This rule supersedes further mentions about welding/alterations to the frame. You will be permitted 4x 2"x2" down bars to your frame, or 4x additional body mounts using up to 1/2" bolts and 3" OD washers. You may mix and match using 2 down bars and 2 additional bolts for example. The down bars must be no further forward than the front door seam in the front, and may be part of your halo in the rear, however must attach only to the top side of the frame. The body bolts may be placed anywhere in the car from the firewall back, do not devise a way to add them ahead of the firewall or attach them to your cage. Must be painted and brought to tech inspectors attention during inspection.

### **Door and Door Reinforcements:**

- We allow almost any cage built around the driver from sturdy, easily assembled material.
- Interior and/or exterior door bars are accepted.
- Both drivers and passenger doors Must be reinforced with channel iron, I-beam, or box steel.
- 2"x6" is min, 12"max width, 76"max length.
- Exterior bars must be beveled.
- Exterior bars must bolt through entire door or post, not just outer skin.
- Front dash bar and rear cross bars are *strongly recommended*, max size is 6" OD.
- Dash bar may have 2 down bars bolted or welded to floor. Max 2"x2" square tubing. Can NOT attach to body mounts or frame in any way. Max 4" x 6" plate on bottom. Front down bars cannot be mounted more than 2" past the front door seam.
- Interior cage may be welded in place. Interior side bars may not extend past front cross bar and only 6" past rear cross bar. Rear cross bar can be a max of 8" from driver's seat.
- Exterior door bars may extend 8" past front fender seam. With a maximum of 76" overall.
- If running exterior door bars, hard top cars may also run a max 10" inner door bar on pass side bolted, not welded and only if a halo bar is not installed.
- Floor to roof head bars are mandatory but cannot attach to frame or body mounts. You may run 2 of these.
- Halo bars are acceptable. Halo may be bolted or welded to the floor using up to a 4" x 6" plate if desired but can NOT attach to the frame or body mounts in any way.
- Gas tank protectors are allowed, but must be attached to rear cross bar only. Min 4" off of floor and min 4" from rear seat, max width 36" OD.
- All doors must be securely fastened shut by means of bolts, chains, clamps, etc.
- Doors may be welded shut 6" weld, 6" no weld, no exception. Filler may be 2" x 1/8" flat bar or 1/2" round bar. If seams were fully welded for a previous show you must cut the entire seam weld out every 6". No slice cutting will be allowed!

## **Engine:**

- Any engine may be used in any car, but must mount within 4" of original mounts.
- Headers or exhaust manifolds are mandatory.
- Mounting of engine must not strengthen the car in any way.
- Lower engine cradles will be allowed with NO front plates. Pulley protectors will also be allowed. No use other than what it is made for will be permitted. Max 5/8" thick. Cradles cannot extend more than a few inches past the ears on the block where it mounts. (see picture of cradle at bottom of file)
- Lower motor mounts can be welded to the engine saddle (spacers are acceptable). Must bolt to the cradle. Aftermarket mounts may be used but NO solid mounts. Every motor mount must have rubber bushing between cradle and frame.

2003 and newer FOMOCOs must use the stock aluminum engine saddle. You may create a mounting surface to weld engine mounts to by either bolting, or welding to the side of the frame rail. Mounts shall not be connected together, and anything deemed to be excessive or an attempt to strengthen the frame may not be given a chance to repair.

- You may chain engine.
- You must run an air cleaner.
- No skid plates.
- No starting fluids allowed.
- No distributor protectors, at all. Clamps acceptable.
- Coil protectors and plug wire protectors are acceptable, however must be approximately the size of the back of the heads, anything larger will be cut. If you devise a way to use them as a kicker or brace, they will be removed completely.

## **Transmission:**

- You may use any type of mounts.
- If not using a factory cross member, you may use 2" x 2" square tubing.
- Any type of coolers are acceptable, but must be securely fastened in passenger compartment.
- 3/4" hose attached to fill tube is recommended.
- Metal or braided lines *highly recommended*.
- Any type of shifter may be used but must not strengthen car in any way.

- No skid plates.
- You may use a transmission protector/brace, but must not act as a kicker in any way!!! Floor must be cut out clearly around.
- Protector may only attach to transmission and only to protect the upper half of tranny (see picture of sample trans brace at bottom of file).
- You may only run protector if at least 3/4 of top of transmission is visible.
- If deemed you are using it as a kicker it will be removed, or you will cut firewall and floor out!!!
- No aftermarket bell housings or steel tail shafts will be allowed. ie transmission cases must be stock
- Any type of driveshaft is acceptable.

### **Rear Differential:**

- Diff swaps are allowed but must use stock mounting brackets.
- You may weld stock brackets, or stock equivalent to housing if doing a swap.
- No added bracing allowed.
- Any passenger vehicle 5 lug or max 8 lug diff allowed.
- You may lengthen or shorten trailing arms but no reinforcing.
- You may chain the diff with one wrap of chain to the body only! Chain may go around frame, but must not attach to the frame in any way and may only be 3/8" in size. Chain links cannot be welded.

### **Rear Suspension:**

- 10 leaf max, must have a minimum of 1" stagger.
- 3/8 max thickness, 2 1/2" max width.
- No extended shackles.
- Stock style shocks only.
- No welding of spring packs.
- No flat sprung cars.
- Coil springs may be bolted, tied, or welded to differential.
- Coils may be doubled and clamped, chained, or wired together, but NOT welded together. Only welded to housing.
- On leaf cars, lower spring plate may be 1/4" flat plate.
- 4 leaf clamps per side max.

- Coil cars may not be converted to leaf cars, or vice versa.
- Watts link conversion kits are allowed. Upper control arm bracket plate may be no larger than 6"x6"x3/8" and may not weld to the package tray in any way. Bolts may not pass through body. Lower mounts may only be 3"x3"x1/4" and only weld to the side of the frame. No gussets or added material, and these cannot weld to top or bottom of frame in any way. All brackets must be in the position a car without watts link would be (example: 98-02 ford must be mounted like a 97 ford). All other brackets must be removed.

### **Front Suspension & Steering:**

- 2003 and newer FOMOCOs MUST use stock rack and pinion steering setup, as well as the stock aluminum engine saddle, but may swap spindles and upper control arms as per below if possible.
- Any steering column is acceptable.
- Steering u-joints are allowed.
- All steering and suspension must remain stock, or replaced from a car that is legal for the class, without any modifications or manufactured mounts, including control arms, ball joints, spindles, hubs, tie rod ends and sleeves, center links, pitman arms, idler arms, and steering boxes. Any aftermarket replacement parts must be from a big box store and stock equivalent, nothing grossly over stock strength.
- Sway bars must remain stock in stock configuration with stock or stock equivalent mounting hardware, or be removed.
- Coil spring spacers are allowed.
- Center link may be lowered.
- Any pump is acceptable.
- You may weld upper control arms to frame with 2" x 4" x 1/4" flat bar straps, 2 straps per arm.

### **Bumpers:**

- If you choose to hardnose your bumper you may use 10" x 4" x 1/4" thick bumper plates. They can be used to replace original brackets and shocks. One or the other only. Plates may be welded to any side. Top, bottom or either side. If you choose to cut the plate you can only use 1 piece, not 2.
- Front frame may be shortened up to the first body mount, but the rad support must remain in stock location.

- A 4" x 6" x 1/4" thick plate can be used on the front of the frame as backing to the bumper.
- Bumper swaps are allowed.
- You may trim and flip your bumper.
- You may pinch and weld the outer chrome skin to the back internal structure of the bumper. End to end with no added material. Ends and holes CANNOT be filled or capped. Chrome skins must remain unwelded on the ends to allow inspection from each side of the bumper.
- No loaded bumpers.
- You may weld bumper to stock brackets and brackets to frame.
- Bracket to frame welding can only reach 10" from front of frame to back.
- Max 22" to bottom of front bumper.
- Bumpers may be chained with one loop of 3/8" chain to hood, core support, trunk lid, or taillight panel.

#### **Radiator & Core Support:**

- Radiators must be stock, or stock equivalent. Aluminum radiators accepted. Must be mounted in stock location.
- Any fan is allowed.
- Radiator support must be in stock location, without modification, unless specifically noted otherwise.
- 2 rad support spacers are allowed, 6" max length. 3" max OD and may be welded to the frame or core support, NOT both. Must be mounted vertically and used only as a vertical spacer. DO NOT devise a way to use them to strengthen any aspect of the car.
- No supplemental cooling devices are permitted.
- No antifreeze.
- ABSOLUTELY NO welding on the core support will be tolerated, except when attaching rad support spacers, or bumper straps. You may cut your core support to allow for your choice of bumper mounting, however nothing may be added back.

#### **Fuel System:**

- *Plastic or steel certified fuel tanks allowed.*
- 7.5 gallons max capacity.
- Original tanks must be removed.



- Tank is to be securely mounted behind driver's seat.
- Any type of gas pedal is allowed.
- Automotive pump gas only.
- Any type of fuel pump is allowed.
- Electric pumps must have a clearly marked shut off switch.
- All fuel lines passing through any panels must be protected.
- Tank must not reinforce the car.

### **Tires & Brakes:**

- You may run any type of air-filled tire, implement or skid steer tires allowed, flapper tires or double tires allowed.
- Max wheel size is 18" steel rims.
- Weld in wheel center will be allowed. Max 8" centers.
- *No flapper tires or double tires allowed.*
- No split rims, studded tires, solid or filled tires allowed.
- No homemade rims allowed.
- Valve stem protectors are permitted.
- All wheel weights must be removed.
- Any type of braking system or configuration is allowed.
- If using a pinion brake the mounting must only be to the center section and not to the axle tubes, or to strengthen the housing.
- If using floor mounted pedals, they must not strengthen car at all or will be cut.
- Any size wheel nuts are allowed.

### **Batteries:**

- You may run a max of 2x 12V batteries.
- Must be securely fastened in front of the passenger seat.
- Batteries must be covered with floor mats or equivalent, unless gel batteries.
- Must be in a secure battery box, no wood.
- Box must not reinforce the car, or be attached to the frame in any way.

## **Hood & Trunk:**

- Hoods are mandatory.
- Must have hole in hood to extinguish a fire.
- Bumper straps will be allowed. 2" x 1/4". Can be welded or bolted to bumper, and hood skin or core support, NOT fenders. May be welded to washer over front hood pins, or have a hole in them and laid over front hood pins. May not cross over each other. Max 36" length.
- Bumper straps will also be allowed from the rear bumper to the trunk, following the same rules as above.
- Hood *can* be bolted, chained, or fastened in a minimum of 6 places, maximum of 8, including pins through

### **front body mounts.**

- Max washer size is 6" x 6".
- 2 may attach to the frame through original body mount.
- Max redi-rod size is 1-1/4".
- You may use 2 pcs of 2" x 2" angle iron 6" long welded to body & hood or trunk than bolted together with 2 bolts. Max bolt size 3/8". Angle iron may not be welded across the seam.
- You may use 20 bolts, 3/8" max in size to bolt hood skins together *or the use of weld will be accepted.*
- You may tuck, or canoe trunk but light panel must remain vertical. Top side of trunk lid cannot be lower than 12 inches to the main trunk floor and not the spare tire dish etc. 10" x 10" inspection hole must be cut in trunk lid.
- You may flip and bolt trunk lid to trunk floor with a max of 6 bolts. 2 of the 6 may be welded or bolted to/through the frame. You may also mix and match welding and bolting as long as it's a max of 6 points.
- Trunk may be welded with 6" of weld with 2" x 1/8" flat bar as filler but will count as one of your 6 spots. Welding must be 6" on, 6" off, up to a MAX of 6 places.

**Body:**

- All body mounts must remain in place and stock except where all tread passed through. If tilting/cold bending your car, you may add washers/spacers of similar size to the body mounts at the firewall to allow a tighter fit between the body and the mount with a longer bolt.
- Any body bolts that are replaced must remain factory size.
- Wheel wells may be trimmed.
- Fire wall may be cut out.
- Any creasing of body is allowed.
- 8 bolts per wheel are allowed. Max size 3/8" with max 2" washer.
- Doors may be welded 6" weld, 6" no weld. The no weld space must be 6" if less welding is used.
- Rotted out floors may be replaced with same thickness material and tacked in place.
- 2 vertical front window bars are allowed with 2 horizontal bars across.
- 1 rear window bar is allowed, roof to speaker deck or window seam only.
- Window bars may be bolted or welded. If welded no more than 6" of weld per end.
- Side windows may have 1 bar per.
- Cars may be painted one colour. Drivers door does not have to be white.

Sample Pictures:



Example for type of cradle allowed and pulley protector.



Example of trans braces allowed.