

2024 Vulcan Team Showdown

Team Iron Car Rules

July 20, 2024

1. **Safety and Tech:** For spectators, officials, drivers, and crew is our first concern. Fire, flying debris, and impact injuries are possible. Keep those thoughts in mind when stripping and building your car.

- If there are any discrepancies during tech you will be given one opportunity to repair your car. If you are unable to make the changes required your car will be loaded and your entry fee not refunded. No more than two times through tech.
- We reserve the right to re-inspect any car at anytime before, during or after the derby if needed. You may be asked to cut areas of question open before, during or after derby if needed. All cars are subject to post race inspection before any prize money is awarded. If one member of winning team is found to have cheated the whole team will be disqualified.
- We will be scoping frames.
- Be advised that by participating in this event you and your car may be filmed. And that the use of your image, likeness and voice may be used.
- **NO SANDBAGGING!** This is for the fans so lets put on a show for them. There will be no warnings, if a flag man deems you to be sandbagging you will be disqualified from the heat!
- Drivers door hits are illegal. If the hit is deemed by officials to be careless or intentional, or if you are pushing on a door you may be disqualified; however, if you use your drivers door as a defense, we will not enforce the rule! If you use the door defense repeatedly you may be disqualified.
- **All officials calls are final!** There is no protest rule. Any driver, pit crew, or family members arguing with the officials or staff will result in that drivers disqualification and possible ejection. No calls will be overturned!
- All vehicles will be checked for working brakes. Must be able to stop car.
- Mandatory seat belt, lap belt as a minimum.
- Drivers must wear at least long sleeve shirt and pants, no t-shirts or muscle shirts.
- **If it does not say you can do it in the rules, its not allowed! Do not push the “Grey Area”, you may not compete. Any questions ask tech.**

2. **Open to any make or model of car-** foreign or domestic **EXCEPT THE FOLLOWING**

- Convertibles
- Vehicles with T tops

- Ambulance

3. Mandatory Stripping of cars:

- All glass, plastic and pot metal must be removed. Nothing may remain in the bottoms of the trunk or doors. Rear seats in all cars must be removed.
- All outer hardware must be removed- door handles, mirrors, chrome, moldings, screws, fiberglass, ect.
- Stock fuel tank must be removed
- Trailer hitch and all components must be removed.
- Remove all interior upholstery, plastics, carpet, and trim, except front seat.
- All loose debris will be cleaned out of the car before allowed on the track.

4. Doors and Door Reinforcements:

- You may run either an inside cage or outside door bars, not both.
- If running inside bars, must be a single bar 4pt cage welded or bolted, no double bars with the exception of the drivers door. You may use channel or tubing/pipe up to 6" OD for dash and rear seat bars. Side bars can be up to 10" tall channel or tubing. All cage components must be 6" off any floor pan sheet metal or body mount. And 4" off transmission tunnel. You may bolt or weld. 10"x10" by 3/8 thick end plates. You may have 2 down bars welded to the frame on drivers and passenger side, no further forward then front inside door seam, and no further back then rear cross bar. Down bars must be 90 degrees vertical off car frame with no horizontal variation. Down bars can be no bigger then 2"x2" square tube.
- If running inside cage you may weld or bolt on 1/8" thick sheet metal on to drivers door only as protection from door tearing open. It can overlap front and rear seam by 2"
- Door bars on inside cage cannot extend past front dash bar. And no more than 6" past rear cross bar
- If running outside door bars both drivers door and passenger doors must be reinforced with a maximum for 2"x 12" and a minimum of 2"x 6" channel iron, I-beam, or Box steel. 3/16" minimum thickness for a maximum of 76" long. Ends of door bars must be rounded. Door bars must be bolted with a minimum of four 3/4" bolts through the entire door/door post or fender with good size washer. Be aware of placement of bolts to movement of drivers movement inside the vehicle.
- Must have cross bar behind the drivers seat door to door, and may not be any futher than 8" behind seat.
- Floor to roof head rest/roll bar is mandatory. Can be mounted from cross bar to roof or floor to roof but not attached to frame at all. You may run two of these.
- Hard top cars may bolt in bar from roof to door to act as B pillar.
- You must run a dash bar. Must be mounted door pillar to door pillar. A minimum of 4" from firewall.
- Outside door seams may be welded using 1/2" rod as a filler or flat iron 2" wide 3/16" thick

5. Hoods:

- Car hood is mandatory
- Hood must have large enough hole suitable for fire extinguisher.
- Hood must be bolted in a minimum four places and a maximum of eight. Two of the eight may go through the frame and not be welded to the side of the frame.
- Maximum bolt size is 1 1/4", minimum of 3/4"
- Maximum washer size of 5"x5"
- You may bolt the skins of the hood after cutting hole. maximum of **twelve** 3/8" bolts may be used.
- Hood may not be welded to bumper
- Two 36" long 2"x1/4" flat bar straps may be welded from hood washer to bumper. 8" of strap may be welded on hood and on bumper. Straps can not cross. You may cut a hole in strap and put over your all thread and weld to core support.

6. Trunk:

- Trunk lid must be from the make of the car and must be a trunk lid (no hoods). You can fold the trunk lid over. Do not slide the lid forward or back, it must remain on the hinges. Speaker deck cannot be removed. Trunk lid must have at least two 6" holes or one 12" hole cut in the first 60% of the trunk lid for inspection purposes, inspection hole may have 4 3/8" or less bolts and 1.25" diameter washers bolting the two layers back together. If these holes are strategically placed so we cannot see what we want to see to inspect the inside of the trunk you will be asked to cut more or bigger holes.
- Trunk seams can only be welded 5" on 5" off with 2" wide 3/16" this flat iron.
- Your trunk lid may be V'd in the center but must remain at least 10" off the trunk floor, the 10" will be measured from the top of the frame rails not the spare tire hole. If you fold your trunk lid in half to the trunk floor you can only use a total of 15" ((3) 2"x5"x3/16" plates) of weld to attach it to the floor. Rear quarters may not be laid over to make a trunk seam.
- Must be fastened with a minimum of two places.
- You can use 2 bolts through the frame not welded to the side of frame, Maximum bolt size 1 1/4". Bolts must be straight up and down.
- Rear quarters and sheet metal above the rear bumper must remain vertical.
- No wedged trunks.
- Two 36" long 2"x1/4" flat bar straps may be welded from trunk sheet metal to bumper. 8" of strap may be welded on Trunk and on bumper.

7. Windows:

- You must have one window bar in place of windshield but may have two. Bolted or welded to roof and to firewall. Not connected to cage. 3"x1/4" flat bar or 2" square tubing. Can no further bar then 6" on the roof.

- You may have a window bar in the back window. Bolted or welded to roof and to speaker deck with 4"x4" 1/4" plate. Cannot be attached to trunk lid. 2"x2" square tubing 36" max, can not attach to or be within 12" of halo.
- Side windows may not have any kind of chain, wire or bars. Except for drivers window on front door as for driver protection.

8. Battery:

- Must be relocated to passenger side floor securely fastened by nuts, bolt, washers.
- Battery must be covered by a rubber mat or in a marine style battery box.
- Maximum of **two** 12 volt batteries.

9. Electric switches:

- If used must be uniformed. Up/forward for on, down/back for off.
- It is strongly recommended that any electrical system used be fused.

10. Fuel System:

- Fuel leaks or potential leaks will not be tolerated!
- Gas tank protector will be allowed, 30" wide and 6" off floor, 4" from rear sheet metal, and at least 12" from roof. You can brace from halo to tank protector. But back of protector cant be any wider then 30".
- Fuel tank can be boat tank, or fuel cell. **NO PLASTIC TANKS.** 7 gallon maximum. Located in the rear seat area of the car securely mounted with nuts, bolts, metal straps, ratchet straps. NO screws or bungee cords. Must not be mounted in any way that does or will strengthen the car.
- A hole must be cut in floor near, around or under tank for drainage in case of leak.
- Must remove all floor plugs.
- Fuel lines entering through the firewall into the passenger compartment must be approved High pressure lines. And protected in a way to prevent being pinched or burned.
- Electric fuel pumps are ok but **must** be fused and have a clear **KILL SWITCH.**
- No methanol fuel.
- Any fuel leak will be immediate DQ from the heat you are running in.

11. Cooling System:

- Must remain stock or be removed.
- Water only. No Antifreeze
- Can run stock fan or electric fan. If stock fan is being used the hood must cover over fan to act as shroud.
- No homemade radiators.
- Rad must be in stock location as well as rad support.
- Two rad support spacers are allowed. No larger then 3" OD. May be welded to top of frame or bottom of rad support not both. Maximum 6" between top of frame and bottom of rad support.

- You may use an AC condenser or 1/8" expanded metal to protect radiator not both. Expanded metal can only be 2" larger than the radiator opening. Condenser or expanded may be attached by six one inch welds or six 3/8 bolts or wired in six spots.

12. Air intake and exhaust:

- Must run air cleaner assembly with a filter element to act as a flame arrestor.
- Exhaust must exit the engine compartment through the hood or out the bottom. Manifolds alone are **NOT** enough!
- Header protectors are allowed

13. Bumpers:

- Any car bumper may be used.
- Loaded bumpers may be used, cannot be welded to the body.
- Homemade bumpers are allowed, if building a point on the bumper you must have a 6" point spread over 32". No sharp points (judges discretion). Max size of bumper is 6" x 6". Cannot be welded to the body
- Rear bumpers may be homemade, max 4"x4", no point allowed.
- Bumpers may be inverted and trimmed.
- You have two options for mounting your bumper. 1) Bumpers may be welded to bumper brackets and brackets to frame. **NO ADDED MATERIAL** such as fishplates, angle iron, pipe. Must be stock components. 2) Hard nose bumper to frame. You may square front of frame no further back than the front of the core support body mount. If you choose to hard nose you can get rid of stock brackets and use a 14"x4"x1/4" thick plate. 4" to mount bumper and welded 10" back from front of frame.
- Bumper shocks may be collapsed and welded. Bumper bracket welding can be no further than 10" back from front of frame. No extending shocks.
- Cannot use brackets from back bumper on front.
- Maximum bumper height from ground to bottom of the bumper is 22", minimum bumper height from ground to bottom of bumper 15" (**Tech officials discretion**)

14. Tires and rims:

- Max 16" minimum 14" rim size. Will allow 8" weld in wheel centers
- **NO** split rims.
- Valve stem protectors and tubes are acceptable.
- Any pneumatic tires to a maximum tire height of 31" are acceptable. I.e: forklift, implement, tractor.
- 1/2" bead lip protectors are allowed on outside lip only, no homemade inside lips.
- Air only in tires. **NO** additives, liquids, solids, or fillers.
- Wheel weights must be removed.
- Flapper tires are ok

15. Engines:

- Any motor can be used in the car but must be mounted within 4" of original motor. We will measure and make you move motor if you are outside of the 4".
- You may chain motor but must use an existing bolt.
- Mounting of engine must not strengthen car in any way.
- We will allow lower saddle cradle with front plate, and pulley protector. If you are running a pulley protector you must cut out entire sway bar. This is not to strengthen your car its to save you from wrecking your engine.
- You may use 8"x8"x1/2" thick plate to use as a base to weld your motor mount into car and add light bracing to the mount but motor must be bolted to that mount. No solid mounted motors
- Firewall may be cut or hammered back for distributor clearance.
- Aftermarket gas and brake pedals may be used. If not mounted to the firewall they must be mounted in such a way that does not strengthen the car.
- **No skid plates for oil pans or reinforced oil pans.** No Mid plates

16. Transmission:

- You may use stock or homemade mount 2"x 1/4" square tubing. Attached only to outside frame rails. If using square tubing it cannot be attached to dog legs on 73-74 caddies.
- Transmission coolers may be used but they must be secured in such a way to prevent injury. Must be secured in the passenger compartment. And not be mounted in any way that does or will strengthen the car.
- 3/4" hose attached to fill tube is recommended.
- Metal, braided, or high pressure lines must be used. No fuel or low pressure line allowed
- You may use any type of shifter.
- Slider driveshaft may be used.
- No steel bellhousing or tail housings or aftermarket cases.
- 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!!!

17. Differential

- Any non braced passenger vehicle differentials may be used. 8 lug max.
- Differentials may be geared and locked.
- Rear end swaps are allowed you may use custom brackets. We will allow the Postal Mopar style brackets. You may add a bridge between upper brackets, using 3" channel iron.
- You may use up to 3/8" chain to go from differential to frame. One chain per side. Not bolted to frame.

- You may lengthen or shorten trailing arms, but they must be of passenger car origin and must operate.
- You cannot reinforce trailing arms or axle tubes.
- Pinion brakes are allowed, no excessive bracing. Judges discretion

18. Steering:

- No Hydro steering
- Any steering column is permitted must use factory steering box. You may swap steering and suspension components as long as they are of car orient and a direct bolt on to the car you are running. No modifications to the frame to accept steering boxes or control arms will be allowed. You may drill rotors and replace wheel studs to change bolt pattern. Max 5/8" diameter studs.
- Aftermarket tie rods will be allowed, or you may use 1" angle iron welded on to reinforce tie rod
- You may drop your center link.
- No reinforcing or pre bolting/chaining of any steering parts.

19. Rear Suspension:

- Stock style shocks only.
- No clamping or welding of shocks
- Rear coil springs may be welded or chained to the diff not both.
- Coil springs may be doubled
- No Air bags
- No swapping of suspension. Ie. Cannot convert coil car to leafs or leaf to coil.
- Maximum of 9 leafs. No spacers between leafs and differential.
- No movement of spring mounts.
- You can have **four 1" wide** clamps/bands on each leaf pack.
- No duct tape on leafs packs.
- No welding of leaf packs
- No extended spring shackles
- Must have spring stagger of at least 2"
- **No flat sprung cars.** Must had at least 2" arch.
- Watts links conversion kits are allowed. Upper control arm bracket plate may not be larger then 6"x6"x 3/8" and may not weld to the package tray in any way, max 4 bolts per side. Bolts may not pass through the body. Lower mounts may only be 3"x3"x1/4" and only be welded to the side of the frame on two sides of the bracket. 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 must be mounted like a 97 ford). If using watts link it must be a full convert and all other brackets must be removed. No package tray swaps.

20. Front Suspension:

- You may weld, bolt or chain down you're a arms. You are allowed either 2"x4"by 1/4" straps on each side of the Upper A arm, OR one chain, OR one bolt per frame rail side. Do not weld entire A arm down. If you are in excess of this rule you will have to cut and may not run.
- Upper and lower front control arms may NOT be reinforced.
- No ball joint protectors. Ball joints may be welded in.
- Aftermarket ball joints may be used but must be a direct stock replacement and not need weld in collars.

21. Frames:

- **No frame welding other than what is specified. Don't over do it or you may not be able to fix and you may be DQ'D**
- Any added or welded metal plate/rod or material not specifically covered in the rules will be **removed completely** as well as the surrounding metal with the exception of the frame.
- No re-welding of any factory seams is allowed other than what is specified. If there is any welding on the frame that is not specified in the rules there will be a 3" on 3" off with full daylight slices in the illegal welded section of the frame.
- 14" total welding is allowed between the back of the a-arm and transmission cross member. 80's and newer cars will be allowed to cut and tilt using the 14" of weld or cold bend in from of the transmission cross member. All old iron cars will be allowed to use the 14" to reweld seams where the factory missed or any other factory seam (weld must be continuous)
- You may dimple and pre bend rear frame.
- Do not paint or undercoat your frame or you wont be inspected.
- On Y Frame cars you may close the "Y" and weld. No added material. Do not over weld or abuse this rule or you will cut.
- You may weld your motor mounts to the factory engine cradle, not to the frame rails.
- Frame repairs will be as followed: You will be allowed to pre plate your car prior to first heat with 24" of 4" tall up to 1/4" thick plate per frame rail. Frame repair plates must not touch bumper brackets or hump plates. There must be 1" of clean frame between bumper bracket and hump plate. Frame repairs can be mounted on any of the 4 sides of the frame rails only. All frame repair plates must be painted bright color for tech to see and measure. Plates can be cut to whatever length you want as long as don't measure more than 24". Plates must be a minimum must be 1" wide and tall. Max weld bead 3/8"
- **Imperials and 03 and newer fords will only be allowed 12"x 4"x 1/4" pre plating per rail, not the 24".**
- **03 and Newer fords specifics:**
 - All steering components must be completely stock
 - Aluminum cross member must be used

- **Engines must be put in using brackets that cant be welded to the frame in any way. Use a maximum 6"x6"x12"x1/4" angle iron and bolt them to the top two a-arm bolts. You may weld steel off those to create a surface for your engine mounts to weld to. These cannot connect together at all, they must be separate.**
- **You may change upper arms and spindles to a different stock set that is off a car allow to run in this class**
- **Watts link. Follow watts link rules in rear suspension section.**
- You may weld a 1/4" thick by 22" hump plate (measured 22" on top contour), contoured to the hump, centered with one pass of 3/8" weld to the outside only no plug welding, matching the factory hump. Must have 1/2" hole in center to check thickness. **DO NOT SPAN HUMP! No Checkerplate**
- **DO NOT WELD ANY BRACKETS ON SIDE OF FRAME**

22. Body:

- You cannot remove and replace body bolts or rubber bushings, except where rod goes through for hood and trunk. If you break a body bolt you can replace with same size bolt and washer no bigger then 1.25" and set into the body mount pocket.
- You may add **two** body mounts in the position of your choice behind the firewall to the rear bumper. Using up to 1/2" bolts, max 8" long with a max of 2 1/2" washers being used. **Must be painted bright color for easy viewing.**
- Body line creasing is allowed on fenders and rear quarter panels. All fenders, quarter panels, and rear sheet metal above bumper must remain in vertical position. No collapsing or wedging, dove tailing of rear quarter panels and trunks or trunk lids.
- No welding of created seams
- No welding of any body sheet metal unless specified.
- Wheel wells may be trimmed for clearance. Skin bolts may be added. 3/8" bolts and a maximum of **6** bolts per fender
- No profanity as part of decoration or the advertising will be tolerated.
- Paint must be matching for your team.
- Roof signs are recommended but **must** be bolted not screwed securely

23. General rules:

- **Two** drivers per team.
- **Two** cars per team.
- **3** pit crew per team
- **ZERO** tolerance on drugs and alcohol in pits during show. If you are under the influence your team will be disqualified!
- **No dogs in pit area.** We have way too many cars running around and equipment moving we do not need to worry about pets.



Example of trans braces allowed.