

# Douglas Volunteer Fire Department

2024 Demo Derby

Saturday August 17th, 2024

Entry Fee: \$80.00

## GENERAL QUALIFICATIONS and SAFETY RULES

\*Highlighted areas are the only changes for 2024

- 1. These rules will be strictly enforced. NO CHEATING WILL BE TOLERATED! Any driver not obeying the rules will be disqualified. Disqualification will result in forfeiture of all entry fees. Any crewmember who is disqualified will have the car he/she is attached to disqualified.**
2. ALL REMITTANCE WILL BE CASH, CASHIER'S CHECK OR MONEY ORDER. NO PERSONAL CHECKS WILL BE ALLOWED
3. **The Douglas Volunteer Fire Department reserves the right to approve or reject any and all entries. The judge's decision is final. The head judge will decide any discrepancies.**
4. Participants must be 16 years of age or older, anyone under 18 years of age must have a signed minor release.
5. Only drivers, owners, mechanics, that sign the release sheet will be permitted in the arena area. 1 Driver, and 2 arena passes will be allowed per car registration. You may purchase 2 additional spectator passes/\$15.00 and/or 1 additional arena pass/\$25.00. **ALL driver, arena, and spectator passes MUST be picked up by 5:30.** All entry fees are non-refundable
6. Any one participant may enter into the consolation heat if the car has run in one of the preliminary heats, and can be repaired for the consolation heat, is eligible to enter again at the discretion of the judges. Car maybe re-inspected for compliance.
7. The use of intoxicating beverages or controlled substances prior to or during the show disqualifies the user from the day's events and they are subject to the suspension at future demos sponsored by the Douglas Volunteer Fire Department. **This will be enforced. Subjected to a breathalyzer.**
8. The Douglas Volunteer Fire Department and Wyoming State Fair, State of Wyoming, will not be responsible for any accident, injury or property loss incurred during Demolition Derby activities.
9. No walkie-talkies or radio systems are permitted in the cars.
10. A driver must hit another car every 90 seconds to prevent disqualification. Being hit by another car does not qualify as your hit. A hit must have complete separation and produce a noticeable impact.
11. **There will be NO deliberate hitting of the driver's door. This will result in immediate disqualification and forfeiture of any entry fees. ALL JUDGE'S DECISIONS ARE FINAL!**

12. All cars must be registered **BEFORE** being inspected. Inspection will be between **11:00am** – 4:00pm the day of the derby. Any car not registered by 3:00pm will be charged an additional **\$50** late fee. **Please have your car ready and in compliance when you arrive.** Any cars not inspected by 5:00pm, **will not be eligible to run**. After final inspection, all cars will be impounded. A mandatory driver's only meeting will be at 5:00.
13. Due to lack of adequate space in the pits, any non-derby cars or non-support vehicles will not be allowed in the pit. One support vehicle with trailer per derby car is permitted. **NO HOT RODDING IN THE PITS.** Keep it at an idle. Any violation of this, car will be disqualified.
14. In the event of a vehicle fire, flip over or injury, or any debris deemed unsafe, **only Fire Department personnel are allowed on the track**, and the heat will be stopped until safety is restored. Cars may get 1 additional chance to run as long as the car passes a safety check and the driver is OK. All other drivers will remain in their car at all times or will be disqualified.
15. Stay in the car! Do not leave your car or loosen safety belt; except in case of fire; until the last car has stopped and been given the checkered flag. A Red flag means ALL cars are to stop where you are until the green flag is given again. In the event of a red flag, all remaining drivers are given a fresh 90 second hit time when the heat is restarted. A Black flag, when waved at you means you have been disqualified. Stop, shut off your engine, break your stick and remain in the car until the heat is over. **DO NOT** remove your helmet! No smoking will be allowed.
16. All cars will be inspected before the program begins. Winning cars will be impounded after the heat to prevent repairs or alterations. The number of cars taken from each heat will be determined at the time of the derby. All cars eligible for the main will be given 25 minutes before to make repairs. In the main, last car to initiate a hit is the winner. Top 3 cars may be re-inspected at conclusion of the main. Everyone else will stay back until cars are verified to be legal.
17. All cars must be removed by midnight day of derby or they will be towed at owner's expense and will be disqualified for the following years event.
18. **Profanity, displays of temper, unruliness, belligerence or any kind of conduct not deemed the norms of society in general will not be tolerated. Any person exhibiting such conduct to any official of the Douglas Volunteer Fire Department or another contestant will be subject to expulsion from the Demo Derby. All entry fees and deposits will be forfeited. ALL JUDGE'S DECISIONS ARE FINAL!**

## Car Specifications and Rules

\*Highlighted areas are the only changes for 2024

### Limited Weld

1. Cars will be sized according to wheelbase. Cars with a factory wheelbase of 102" or less will not be allowed.
2. Any hard top automobile is allowed **EXCEPT:** Trucks, Vans, SUV's, Convertibles, Ambulances, El Caminos, Rancheros or Hearses.
3. All drivers must wear a DOT Certified safety helmet. All drivers must have functioning safety belts. **Neck braces are strongly encouraged.** Vehicles must have working brakes at the beginning of the heat.
4. Any and all air bags, sensors and propellant charges must be removed or discharged.
5. All glass, including head and taillights must be removed **prior** to your arrival.

6. **The rear seat, drivers door armrest, door handles, door locks, seat belts not being used, mounting screws, clips, license plates, antennas, all wheel weights, all side and decorative chrome, trim and rubber stops must be removed.**
7. **All dirt, loose debris, screws, broken glass and anything deemed unsafe, must be swept, vacuumed or removed out of the car.**
8. Any and all trailer hitches must be removed.
9. A maximum of 6 gallons of fuel will be allowed. Fuel tank must be moved into the backseat area and properly secured. **No** plumbers strap allowed. Covered with a non-flammable material is recommended. Original gas tank must be removed or the entire bottom of the tank cut out. Floating & re-enforced gas tank cages are allowed, but should only be designed to protect the gas tank.
10. Vehicles may utilize electric fuel pumps. **A fuel cut off switch MUST be clearly marked with RED PAINT for easy identification near driver in the event of a fire.** This is for driver and fire personnel protection.
11. A maximum of (2) batteries may be used and **MUST** be mounted inside the vehicle. Battery must be properly secured, and covered with a non-conductive material. No plumbers strap allowed. (ex. Rubber, wood, etc.)
12. All doors, tailgates, hatches, hatchbacks, etc. must be welded, chained or steel strapped shut. If a Driver door comes open during the demo that car will be disqualified. Strongly recommended materials: Welding or chain. Filler may be used on door seams but restricted to 3/8" round bar or 1 1/2" by 1/8" thick flat metal strap. No rope or wire.
13. Cutting fenders for wheel clearance is permitted, and may be welded without the use of extra metal or excessive welding. Folding and re-welding is permitted; bolting or re-skinning will **NOT** be allowed.

#### 14. **CAGE**

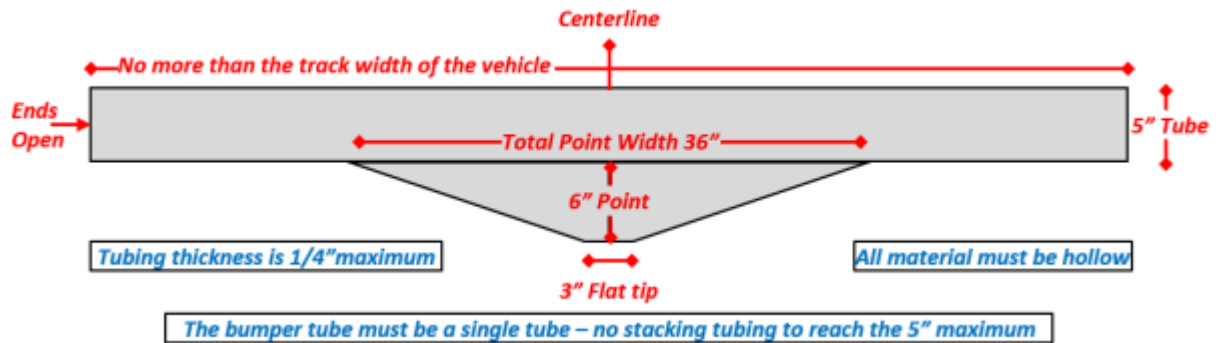
The driver door **MUST** be reinforced for safety by a 4-Point Cage or Door Brace. Safety reinforcements must be contained within the passenger compartment **ONLY** (except the Halo bar and Outside Door Brace). Drivers may also use plates where pipe or tubing meets the floorboard (maximum of 8" X 8" in size and up to 1/4" thick). All safety reinforcements must be constructed **WITH A MAXIMUM OF 6" diameter and a minimum of 2" round or square tubing.**

- A. 4-Point Cage - The 4-Point Cage may be constructed with a maximum of (4) vertical posts. (1) bar across the dash area, (2) bars across both the driver and passenger doors, and (2) bars across the rear seat area no more than 12" behind the driver seat (1 of the rear bars must be no more than 12" above the floorboard).
- B. Door Braces - The Door Brace may be constructed with (1) door bar slanted upward across the driver and passenger door and (1) rear seat bar slanted downward to the opposite rear floorboard no more than 12" above the floorboard).
- C. Outside Door Brace - An Outside Door Brace may be used instead. It **CANNOT** extend more than 12" past the front and rear door seams. The use of "Grader Blade" material as an Outside Door Brace is allowed, but it is **NOT RECOMMENDED.**
- D. Halo Bar - Halo bar or roll-over protection is **MANDATORY.** It may be routed inside or over the roof of the vehicle. If using a Halo bar with a 4-Point Cage, it will be extended upward from the two rear, vertical posts. If used with the Door Brace, the Halo vertical bars can be independent and must be welded to the top of the frame

## 15. 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 the rule you will be given the opportunity to correct it in order to compete. If you are not willing to correct it, you will be disqualified. Officials have final say.

- A. Bumpers can NOT be stuffed, packed, or reinforced in any way, and factory openings can NOT be closed.
- B. Bumper swaps are allowed. Bumpers may be flipped, and front bumpers may be used on the rear and vice versa. (except homemade – See Below).
- C. Only stock O.E.M. bumpers off of passenger cars may be used.
- D. Bumpers may be cut and/or folded so they do not smash into the tires during the event.
- E. Bumpers may have the chrome outer shell and steel inner core welded together with no added metal.
- F. Bumpers may be welded straight to the frame horns with NO brackets or shocks on non-compression bumper type cars.
- G. No more than one set of bumper brackets may be used.
- H. HOME-MADE BUMPERS are allowed ON THE FRONT ONLY if constructed within the following parameters:



### Ways to mount a bumper:

- I. Shock absorber-type bumper mounts may be welded to the inside or outside of the frame with no added metal. Shock absorbers may also be welded solid around the tube seam only (must be drained if welded). Shock absorbers can NOT extend more than 10" onto or into the frame unless they did when stock.
- J. Stock bumper brackets and shock tubes must stay in the stock locations and may be welded to the front 10" of the frame only. No swapping bumper brackets and or shock tubes/beams.
- K. You may remove ALL factory brackets and shock tubes, and in its place use a 14" X 4" X 1/4" flat plate with the last 4" bent into an "L", the 10 inches may be welded to the first 10" of the outside of the frame leaving the 4" bend to mount the bumper to. The 4" bend cannot be in front of the frame rail.
- L. 9 gauge wire or 3/8" chain **must** go around front and rear bumpers and secured to the frame or body in two (2) places with a max of 2 wraps at each location. This is done to help prevent bumpers from falling off and stopping the show.
- M. INSTEAD of chains, Drivers may use (2) metal straps from the front bumper to the core support ONLY.
  - 1) Straps cannot exceed 3" wide and 1/4" thick material.
  - 2) Straps can only be welded up to 6" onto the bumper and 6" onto the core support.

## 16. HOODS

- A. No sliding hood forward.
- B. Must be in stock location.
- C. Hood cannot be welded to bumper.
- D. If the hood is not operational, because of welding or use of more than 4 bolts, approximately 80% of the Hood area must be removed. Filler may be used but restricted to 3/8" round bar or 1 1/2" by 1/8" thick flat metal strap.

- E. If a hood is operable, it must have a minimum 16" diameter hole cut over the carburetor for fire extinguishing. Hoods can be chained or bolted (no larger than 1" bolts, or ½" chain); if bolted must use angle iron. Maximum of 4 bolts or chains. If two pieces of angle iron are welded on top of the hood and fender to bolt the hood, they cannot be longer than 8" or larger than 1 ½" by 1 ½" angle ¼" thick. If chains are used, they may be single looped around bumper and no larger than 3/8".
- F. (2) All-thread (one per side) with a maximum diameter of 1" may be used under the following stipulations:
  - 1) All-thread MUST be located immediately in front, behind, or pass through the radiator core support.
  - 2) All-thread can be welded or bolted to or through the front frame with no added metal.
  - 3) All-thread holes may be reinforced with plate material or large washers. Plate material can **NOT** exceed 4" x 4" square and 3/16" thick. Washers can **NOT** exceed 4" diameter.

## 17. TRUNKS

- A. There must be a 12" access to the trunk area for inspection. Filler may be used but restricted to 3/8" round bar or 1 1/2" by 1/8" thick flat metal strap.
- B. Drivers are allowed (2) All-thread (one per side) up to 1" in diameter in the location of their choice under the following stipulations:
  - 1) All-thread can be welded or bolted to or through the rear frame with no added metal.
  - 2) All-thread holes may be reinforced with plate material or large washers. Plate material can **NOT** exceed 4" x 4" square and 3/16" thick. Washer can **NOT** exceed 4" diameter.
- C. No welding trunk to bumper.

## 18. FRAME

- A. Broken or cracked frame rails may be welded and up to 20 inches of reinforcement plating per frame rail will be allowed.
  - 1) Plates can NOT exceed 1/4" thick. Must have a means to verify thickness of patch material.
  - 2) Plates can NOT be taller than cars frame.
  - 3) Plates can NOT exceed 10" in length
  - 4) Plates must be at least 3" away from any other plates.
  - 5) All frame plates **MUST** be painted Red.
  - 6) Plating cannot be connected to the bumper.
- B. Any vehicle with a "Y" or split-frame immediately behind the front bumper can have one of these 3 options:
  - 1) The "Y" may be pinched or squeezed closed. The closed "Y" may be seam welded with no additional metal.
  - 2) The frame "Y" can be plated per the rules above (counts against total plate allowance).
  - 3) If not welded, a maximum of (2) bolts may be used per side running horizontally (side-to-side) through the "Y portion" to prevent it from spreading (3/4" hardware).

## 19. RADIATORS

- A. If used must be in the original location.
- B. All coolant must be inside the engine compartment.
- C. No spray foam ballasts

## 20. TRANSMISSIONS

- A. Coolers are acceptable but must be mounted in the rear seat area.
- B. Must remain in original style mounts. Reinforcing by additional brackets is not allowed. A 2" square tube may be used as a transmission cross member if original is not available.

## 21. ENGINES

- A. Engine swaps from other vehicle brands are allowed.
- B. Engines **MUST** be located within 4" of the stock engine location.
- C. Firewalls and floorboards may be trimmed or bent for engine and/or distributor clearance. Openings larger than 1" in the firewall must be covered with SHEET METAL.
- D. All engines **MUST** have an air cleaner. No open carburetors.
- E. Engine mounts will be inspected within the following rules:
  - 1) Stock engine mounts may be welded or made solid.
  - 2) Individually fabricated engine mounts are difficult to regulate due to unique mounting requirements, bottom line, they can **NOT** be excessive or reinforce the frame in any way. *Inspectors will use discretion.*
  - 3) Four additional chains may be used to tie the engine down to the frame. **NO MORE THAN 4"** of chain may be welded to the frame for **EACH** mount.
  - 4) **LOWER ENGINE CRADLES** are allowed but can **NOT** reinforce the frame.
  - 5) Engine mid-plates are allowed **SOLELY** as a distributor protector/carb halo mount. The mid-plate/distributor protector/carb halo can **NOT** be attached to **ANY** portion of the vehicle body, frame, or the lower engine cradle.
- F. Fabricated distributor protectors are allowed with a maximum of 3/8" plate.
- G. Carb halos are allowed with a maximum of 1 1/2" pipe or tubing, but they can **NOT** extend outside the valve covers. They may attach to the intake, heads, or distributor protector.
- H. The method of "removing bolts" from full cradles will **NOT BE ALLOWED**. **NO FULL ENGINE CRADLES/CAGES/FLUID PAN PROTECTORS ARE ALLOWED!**

## 22. REAR ENDS

- A. Any braced rear ends may be used.
  - 1) Nothing can extend more than 4" from the axle housing or interfere with the way a frame might bend

## 23. SUSPENSION

- A. A chain may be used to travel through the coil and around the axle for safety only. Chain cannot be welded to the axle and must have slack in it.
- B. Spring spacers or welding of shocks, or airlifts will not be allowed.
- C. Do not reinforce or modify the front A-Arms. They must be a direct bolt on with no modifications for installation.
  - 1) You can use chain or plate only to tie your A-Arms down.
  - 2) 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 your A-Arms, and the plates must be square in shape. Any larger plate may be cause for immediate disqualification.
  - 3) 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.

## 24. Windshield/Rear Window Openings

- A. For safety, all windshield openings **MUST** have (2) bars welded vertically in front of the driver.
- B. For safety, rear window openings **MAY** have up to (2) bars. If equipped, the front bar connection shall be welded to the halo bar, and rear connection shall be welded to sheet metal not to exceed past the rear axle. Bars cannot exceed 6" in diameter.

25. When repairing damaged cars: No material stronger than what you are repairing is to be used. Excessive welding (over 1/2" or more than 2 passes) re-skinning, and any excessive use of material are deemed reinforcement and not permitted. All chains must have slack.
26. No ballasts, stuffing or spray foam of any kind will be allowed in any part of the vehicle including: tires, inside of doors, fenders, hoods, around radiators, bumpers, frame or other areas.
27. All wheel weights must be removed.
28. Air conditioning units left on any car must be discharged.
29. A large number must be painted on front car doors and top and must be legible enough to be seen from a distance.
30. **Cars must remain stock unless otherwise noted in the rules. If it's not in the rules, it does not mean you can do it. Call for clarification. Contact Clint at 307-351-1039 or Trevor at 307-359-2619.**