

# DEMOLITION DERBY 2019

## FULL SIZE TRUCK RULES

### GENERAL BUILD RULES

1. All vehicles must tech to the 2019 Rules – Previously run vehicles included. Note: OEM means original equipment of the manufacturer.
2. Derby open to any Full Size Truck, Suburban, SUV and Van.
3. NO Commercial Vehicles, No duallys. No Diesel engines.
4. No 4x4 or AWD allowed unless 1 drive line is removed.
5. No cab forward designs allowed.
6. All trucks will be inspected before entering the arena.
  - a. Nothing may be added after inspection without tech approval
  - b. All winning trucks will be re-inspected prior to leaving the arena area and before payout.

### GENERAL PREP AND SAFETY

1. All glass, chrome, plastic, exterior mirrors, headlights, taillights, chrome rings, emblems, grills, and flammable materials must be removed except the driver's seat.
  - a. ALL glass must be removed. Do not break and leave inside doors.
  - b. Rear seats must be removed.
  - c. You may keep the stock front bench seat.
2. Numbers must be 18" tall in clear contrasting paint.
  - a. Roof Sign recommended.
  - b. If you do not use a roof sign, you must have numbers on the roof and on each side.
  - c. Roof sign can in no way be used to strengthen vehicle.
3. Seat belts
  - a. Must be stock shoulder/lap belt or racing harness lap belt minimum. 4-point harness recommended.
  - b. Seat belts must remain buckled during the entire time of the heat. EXCEPTION: FIRE.
4. Helmet
  - a. DOT approved safety helmets are required.
  - b. Must stay on during the entire length of time of the derby.
5. Safety glasses and gloves MUST be worn by all drivers.
6. Mud screen allowed and recommended on windshield and driver side window.
  - a. Driver side screen should be easily removed.
7. Batteries
  - a. Must be removed from engine area and moved to the inside of vehicle.
  - b. Must be placed in a securely mounted battery box or steel frame.
  - c. Must be placed in the passenger floor area or back seat area.
  - d. No wooden or plastic boxes or plastic milk crates.
  - e. All batteries will be covered with rubber inner tube or other nonconductive material to protect the driver.

8. Radiator
  - a. Must be in original stock position.
  - b. No additional radiator supports, mounts, or guards.
  - c. Only wire, garden hose, straps or plastic ties may be added to secure the radiator.
  - d. No water from cooling system inside of vehicle.
  - e. Electric Radiator Fans OK.
9. Fire extinguisher recommended but must be securely mounted and easily accessible to driver.
10. If the derby is stopped twice for fire on the same vehicle, you may be counted out at that point by officials' discretion.
11. Must be able to exhibit the ability to stop at all times. Brake failure will result in disqualification.
12. Transmission coolers OK. Must be inside of the cab & covered or mounted inside engine compartment on firewall. DOUBLE CLAMPED.
13. Floor Shift/After-market Cable shift OK
14. No additional welding will be allowed on any vehicle following tech until after a heat for repairs. (see repair rules)

## **FUEL SYSTEMS**

1. Gas tanks must be a safe container of steel construction.
  - a. Example: Jeep can or boat tank and must be approved by an official.
  - b. NO PLASTIC containers unless completely surrounded by securely mounted steel.
2. Gas tanks must be securely placed and must be bolted and/or chained solid.
3. Tanks must be capped and behind the driver in the rear seat area.
4. Gas tank protectors are allowed and recommended. (see CAGE COMPONENTS section)
5. Stock gas tanks cannot be used and must be removed from the vehicle unless relocated to back seat area or front of the bed.
6. Hand throttle OK

## **WINDOWS**

1. Front window bars or bands:
  - a. Max material size is 3" x 3" x ¼" square tube or 4" x 3/8" flat bar.
  - b. You may use a plate or angle at each end to mount window bar to.
    - i. Max 4" x 4" x ¼" plate or 2" x 2" x ¼" angle.
  - c. IF the middle portion of the firewall is completely cut out, you must run a window bar on each side of the cut out firewall to the roof.
    - i. You may run 1 horizontal bar between each vertical window bar if the firewall is cut out between them. If a distributor protector is used, horizontal bar must be at least 10" away.
2. A front and driver's window screen is allowed and recommended. Easily removed window net is recommended on driver's window.
3. You may use 6 bolts per fender to bolt inner and outer fender skin around wheel well. Max size ½" bolt with 1.5" washers.

## **DOORS**

1. Doors must be chained and/or welded shut securely.
  - a. Maximum 2-1/2" x ¼" thick metal strap or up to ¾" round-rod may be used as filler.
  - b. Chains must be a minimum 1/8" and a maximum of 3/8" chains.
  - c. If welding, you may only weld up to 50% of the entire door, inner and out seams included.

- d. You may weld inner and outer door skins together at window opening only.
2. A door bar on driver's side door area is mandatory with minimum 6" channel.
  - a. The door bars cannot extend past the beginning of the fender openings.
  - b. Passenger door bar strongly recommended.
3. Inside door bars are allowed and must be padded.
  - a. Inside door bars may not extend through firewall or rear wheel well and may not be attached directly to frame.
4. Drivers door (only) may have a steel/metal plate up to 3/8" thick welded to door skin only. May not cover any of the door seams by more than 2".

## **FRAME**

1. One wrap of chain around the rear frame to the rear axle is allowed.
2. Two extra bed mounts allowed to help keep bed attached, only one per frame rail.
  - a. May use U-Bolts, Max 1" All thread, chain, or cable.
  - b. Must be in front of rear axle.
3. No trailer hitches.
4. No objects protruding outside of the vehicle.
  - a. If officials determine that a vehicle is unsafe it will not be allowed to run until fixed.
5. Body bolts may be changed to no larger than 3/4" bolts or all-thread with max 6" washers on top side only.
  - a. Bolts must be inside frame on bottom side or stock placement.
  - b. Bushings may be removed but must be replaced with at least 1/2" of washers or other filler material.
  - c. Body may not sit directly on the frame.
6. No welding body to frame!
7. Square tube in place of transmission mount allowed in stock position.
  - a. Cannot be used to strengthen frame or be stronger than stock mount.
8. You may re-weld frame seams from the firewall forward.
  - a. For the purpose of clarification, the firewall starts right in front of the front cab mounts at the firewall.
  - b. You may re-weld frame seams in the rear behind the rear axle.
  - c. Maximum 1/2" weld, no filler material allowed on seams.
9. NO "tilting" of the frame on any vehicle.
10. You may fold the bed sides over only behind the rear axle.
11. You may fold the tailgate down and weld or bolt it down.
12. Frames must be in OEM condition on any and all vehicles other than stated above. NO ADDED METAL (INCLUDING WELDS).

## **CAGE COMPONENTS**

1. Must have at least 1 vertical upright bar from floor to roof. At least 2 vertical bars recommended.
  - a. May be attached to sheet metal or top of frame only, not both.
2. Halo (over the roof) roll bars allowed.
  - a. Must be vertical and may be attached to the top of the frame only or sheet metal only, not both.
  - b. If welding to the frame, do not plate the bottom of the roll bar or the frame. You may only weld an open tube to only the top of the frame. Welds MAY NOT extend to the sides of the frame. No plates.

- c. If welding to only sheet metal, you may use up to an 8x8x1/4 plate on each end and it may not be attached to frame in any way.
- d. Top piece over the roof may be up to 6" x 6" square or round tube or up to 10" channel
- 3. A behind driver cross bar (spreader bar) is mandatory.
  - a. Must be welded or bolted behind driver's seat from side to side in back seat area or in the front of the bed.
  - b. The spreader bar cannot exceed 6" in diameter.
  - c. The spreader bar must be at least 5" above the top of the frame rails.
  - d. Each end of the cross bar may be attached to up to an 8x8x1/4 plate, welded or bolted to the door skin or bed sides.
  - e. Spreader bar may be welded or bolted to upright bars
- 4. A bar may be connected from upright bars or spreader bar to rear frame in front of the rear axle. (rear kicker)
  - a. You may only weld an open tube to the top of the frame. No plates.
- 5. IF dash is removed, you must install a dash bar from side to side, above the steering column.
  - a. You are NOT required to remove the dash but it is recommended.
- 6. Driver side door bar is mandatory with minimum 6" channel.
  - a. Passenger door bar strongly recommended.
  - b. The door bars can not extend into any wheel well opening.
  - c. Inside door bars are allowed and must be padded.
  - d. Inside door bars may not extend through firewall or rear sheet metal and may not attach directly to the frame.
- 7. Gas tank protector allowed.
  - a. May be attached to behind seat spreader bar or sheet metal but may in no way be attached to or within 5" of any frame rail or rear kickers.

## **BUMPERS**

- 1. Any stock bumper allowed.
- 2. You may weld bumper chrome to inner beam but each end must be open for inspection. No loaded or capped bumpers.
- 3. Homemade bumpers allowed following these guidelines:
  - a. Maximum 6" x 6" x 3/16" square tube, one piece, open on each end.
  - b. Chrome skin off any stock aluminum automotive bumper may be wrapped around the steel tube and welded. (Optional but encouraged)
    - i. You must cut skin so that it does not wrap all the way around to overlap on itself.
    - ii. No extreme reshaping of chrome skin.
  - c. Bumper width may not be wider than vehicle.
- 4. Bumper may be mounted in **ONE** of the following ways:
  - a. **STOCK**
    - i. Stock brackets may be welded to bumper & frame in stock position.
    - ii. You CANNOT cut in separate pieces, stretch, or bend stock mounts to reconfigure in any way and reattach them to the truck or bumper.
    - iii. Bumper shocks may be compressed and welded.
  - b. **HARD-NOSE WITH PLATE**
    - i. You may remove all stock mounting hardware and weld the bumper directly to the frame (hard-nose).
    - ii. You may cut the frame flat to mount the bumper.
    - iii. You may NOT cut frame any closer than 19" from center of the A-Arm.

iv. You may cap the end of the frame with a maximum 6" x 6" x 1/8" plate to weld the bumper to.

v. All stock mounting hardware must be removed.

**c. HARD NOSE WITH FLAT-BAR MOUNT**

i. Maximum 3" X 1/4" x 12" piece of flat bar may be used and may be welded or bolted to the side of the frame and to the bumper in place of stock mounts.

ii. You may bend the front 5" or less of the flat bar to make an "L" to provide more surface to weld the bumper to.

iii. Flat bar may only be attached to front 10" of the frame rails.

iv. If welded the full 10" back, then only allowed 2" for the "L".

v. Bumper may be welded to frame where it touches

vi. You may also use two additional pieces of up to 1" x 4" square, round, channel or angle iron on each frame rail as filler between bumper and frame.

vii. DO NOT cap or plate the front of the frame if using this method.

viii. ALL stock mounting hardware must be removed.

5. No braces welded or added to bumper.

6. Bumper cannot be welded to body.

7. Chain or strap around the bumper to hood or trunk is allowed but will be counted as a hood/trunk mounting point.

8. Bumper tips and fender wells may be trimmed. No reinforcing with added metal.

## **HOOD & TRUNK**

1. Hood and trunk area will be opened or must be 100% visible (inspection hole) for inspection.

2. You may attach the hood and tailgate/rear door at a maximum 8 POINTS each.

3. Tailgate/rear door may be chained, bolted or welded.

4. Hoods may be chained or bolted only.

5. Maximum bolt size is 1" in diameter – maximum washer size, 6" x 6" x 1/4". Maximum chain size is 3/8" x 4' for each piece of chain used.

6. Maximum weld filler size is 2" x 1/4" flat bar or 3/4" round-rod.

7. Every spot that is welded will count as one mounting POINT on the trunk, maximum 10" of weld at any point.

a. Welded points may not be within 5" of any other weld.

8. You are allowed to attach 2 of the POINTS to or around the bumpers.

a. These can be chain or flat strap max 3" x 3/16"

b. You can weld from bumper to trunk in the rear.

c. You can weld straps from bumper to hood in the front.

d. You may only weld up to 4" of the strap at each end.

e. Inside of engine compartment must be visible through fenders or inspection hole if hood is not easily removed.

9. Maximum material size is 5/16" chains or maximum 1" all-thread.

10. Factory hinges are counted as mounting POINTS if not removed.

11. Hoods CANNOT be welded.

12. Through hood exhaust is OK.

13. Must have a minimum 12" x 12" inspection hole in the hood unless inner fenders are removed.

14. Chain or strap around the bumper to hood or tailgate/rear door is allowed but will be counted as a hood/trunk mounting point.

## **SUSPENSION & AXLES**

1. No added metal within 10" of brake drums.
  - a. No reinforcing of control arms or welding from frame to rear end.
  - b. Heavily modified axles will be subject to tech approval. Call ahead if you're unsure.
  - c. No axle-savers.
2. Spring spacers and stuffed shocks or 3/4" all-thread in place of shocks are allowed.
3. A-arms may be connected to the frame by either chain or bolt or welding at the points of contact only.
  - a. Max 1/2" weld bead
4. Sliders shaft drivelines OK
5. Locked or welded rear ends OK
6. Aftermarket steering
  - a. No reinforcing
  - b. No reconfiguring where boxes mount
  - c. One extra knuckle
7. Tire and wheel combination optional.
  - a. Weld in centers OK
  - b. Valve stem protectors OK.
  - c. No liquid filled tires.

## **VEHICLE OPTIONS**

1. Engine location may be moved but must remain within 3" of stock positioning.
2. You may choose to either run a distributor protector or a pulley protector on the lower engine cradle but not both at the same time.
  - a. Distributor protectors.
    - i. Cannot be attached to or within 10" of the dash bar.
    - ii. Must have relief cut in firewall for distributor protector clearance. Protector may not be used as a brace against the firewall.
  - b. Lower engine cradles.
    - i. Cannot be welded directly to frame.
    - ii. Must not come up sides, in front or behind engine higher than exhaust manifold.
    - iii. Can only include pulley protectors if not using a distributor protector.
3. No transmission braces.
4. Truck bed can be welded to cab to ensure it stays attached.
  - a. Up to 3" x 1/8" flat bar on entire seam or ONE 8" x 8" x 1/4" plate on each side.

## **REPAIRS FOR PRE-RAN/AFTER A HEAT**

1. Allowed two 6" x 6" x 1/8" repair plates after each heat you are in.
  - a. You may only repair back to stock strength. Subject to tech approval.
  - b. Only one 6" x 6" plate per frame rail, per heat.
  - c. You may cut the plate into 2 separate pieces. Each piece may not be within 1" of each other.
  - d. Repair plate may be cut or bent and welded or bolted to any damaged area of the frame you choose.
2. Chain or wire allowed for repairs after heat.
  - a. Only single wrap at any point on the vehicle, maximum 4 chains or wires, 4' max length.
3. Pre-ran vehicles may use plates to repair damage only to restore to stock strength.
  - a. Subject to the above rules and subject to tech approval.
  - b. If deemed excessive, you will have the opportunity to fix it.

4. Must pass tech by specified time for that show.

## **OTHER NOTES**

1. Unless otherwise stated in these rules, there will be absolutely no added metal or non-factory parts or equipment added.
2. No one under 15 is allowed to drive in the event (under 18 must have Parent/Guardian signature, both must have valid ID)
3. Must have current, valid state driver's license or permit.
4. Must sign waiver and release form day of race.

If you have any questions, please call Head Official: Johnny Brown @ 509-301-7161 or DJ Wade @ 509-820-5288 or e-mail [crashmania@yahoo.com](mailto:crashmania@yahoo.com)

## **EVENT LINE UP**

5:00 pm – Driver's Meeting

6:30 pm – Time Trials

7:30 pm – Parade of Cars

Heat Races – Max six drivers per heat

Trophy Dash

Powder Puff Heat Races – Max six drivers per heat

Powder Puff Trophy Dash

Australian Pursuit

Demolition – 4 Cyl.

Demolition – 8/6 Cyl.