

# 2023 Northern Alberta Demolition Derby Car rules

## 1 General:

1-1-HEAD TECHS DECISION WILL BE FINAL!!!!!!!

-Must have working brakes! Brake test will be mandatory before inspection.

1-2-Absolutely NO SANDBAGGING!!!!!!! 1 WARNING. THAT'S IT!

1-3-The safety of spectators, officials and drivers is our main concern.

1-4-Open to any make or model except the following: No convertibles, t-tops, Ambulances, Herses, El-Caminos, Rancheros, 1973 and older Chrysler Imperials, this includes Imperial Sub Frames. No Pre 1970 Lincoln's. There will be no tolerance to this.

1-5-You will be given one chance to repair your car after going through tech. If you are unable to fix your car to meet the rules, you will be loaded, and not refunded your entry fee.

1-6-If you have any questions, do not hesitate to call or contact for confirmation

1-7-Do not come to inspection if your car is not race ready. Remember, you only get two times total through inspection. Your car must pass inspection at least 30 minutes prior to the drivers meeting

1-8-The rules clearly state where you can weld and what can be reinforced. There are no gray areas, don't try and create any. Follow the rules!!!!

1-9-A re-inspection will be done before any car advances and before prizes are awarded. Cars can be cut after the show if deemed necessary by the officials.

1-10-Seat belts are mandatory, a lap belt is the minimum.

1-11-Helmets, eye protection, long pants, long sleeves, and closed toe footwear are the minimum

1-12-Intentional drivers door hits are illegal. You will be disqualified from the heat if it is determined that the driver's door hit was intentional. If you are using your door as defense, no call will be made.

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

2-1-All interior, except for driver's seat and seat belt, must be removed including the dash board.

2-2-Remove all glass, lights, lenses, mirrors, and hardware.

2-3-Remove all body trim, hub caps and exterior components. This includes door handles.

2-4-Remove fuel tank

2-5-Remove trailer hitch and all mounting components

2-6-Car must be clean of all debris and loose objects, including broken glass. This goes for interior and trunk area of car.

## **3 Frame:**

3-1-No Frame Reinforcements, shaping or welding will be accepted other than where stated. Violations of this rule may result in immediate loading without a chance to fix your car.

3-2-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 mount, 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.

3-3-You are permitted to tilt a 1980-2002 FOMOCO at either the crush boxes, or at the transmission cross member with 1 single weld, 3/8" wide along the required cuts. No overlapping material, and no added material to be used. Additional/excessive welding will be ground for loading you car without opportunity to fix it.

3-4-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.

3-5-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, it MUST follow the same rules as rule 3-3-FOMOCO.

3-6-You may close Y Frames and weld closed. No added material other than what is permitted in the bumper rules

3-7-You may pre kink/notch/dimple frame behind rear wheels only

3-8-Frame repairs: only allowed to repair rotted out frames, pre run cars, or repair at derby.

3-8-A-Max plate size is 3/16" thick. You can use 4"X6" or 3"X7".

3-8-B-You are allowed 10 Plates per car. 5 on each frame rail. Only 4 may be used ahead of the transmission crossmember per frame rail. There must be a minimum of 1" gap between the edges between the welds.

3-8-C-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, excess pieces must be discarded and not used. You may drill/cut one ½" hole in the center of the plate and plug weld it.

3-9-Re-Stubbing of frame rails is allowed. YOU MUST straight cut both frames, butt up frame and one single pass weld only, 3/8" wide. No plating allowed.

3-10-You may swap shocker sub frames into Y-frame cars, if no bracket reinforcements are required to do so. Y-Frame subs may also be swapped into shocker cars following the same rules.

3-11-This rule supersedes further mentions about welding/alterations to the frame. You will be permitted 4 2"X2" down bars to your frame, or 4 additional body mounts using up to ½" 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 inside front door seam, 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 the cage. Must be painted and brought to tech inspections attention during inspection. Further, all down bars must be vertical, and if you do not wish to attach down bars to your frame, you may bolt or weld to the floor using up to a 4X6 plate if desired.

3-12-Hump plates are allowed on the outside of the frame. Max 22". Maximum ¼" thick.

## **4 Door and Door Reinforcement:**

4-1-we allow almost a cage built around the driver from sturdy, easily assembled material.

4-2-Interior or exterior bars are accepted

4-3-Both driver and passenger front doors must be reinforced with channel iron, I-beam or box steel. 2"X6" is minimum, 12" Max width. 76" max length for external door bars.

4-4-Exterior bars must be bevelled and must be bolted through entire door or post, not just the door skin

4-5-Front dash bar and rear cross bar are mandatory. Max size is 6" OD.

4-6-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 drivers seat.

4-7-Exterior door bars may extend 8" past front fender seam. With a maximum length of 76" overall

4-8-Floor to roof head bars are mandatory but cannot attach to the frame or body mounts. You may run 2 of these.

4-9-Halo bars are acceptable but must be mounted vertically. Halo may be bolted or welded to the floor using up to a 4"X6" plate if desired. But can NOT attach to the frame or body mounts in any way.

4-10-Gas tank protectors are allowed but must be attached to the rear cross bar only. Minimum 4" off the floor and minimum 4" from rear seat. Maximum width of 36" OD.

4-11-All doors must be securely fastened shut by means of bolts, chains, clamps, etc.

4-12-Doors may be welded shut with a 6" on 6" off weld. No exceptions. Filler may be 2"X1/8" 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. Driver's door and only drivers door can be skinned with 1/8" plate. Skin can not extend past door seam. If welding skin to the seam, the same 6" on 6" off rule applies. If weld is inside seam, can be welded solid.

## **5 Engine:**

5-1-Any engine may be used in any car but must mount within 4" of original mounts.

5-2-Headers or exhaust manifolds are mandatory.

5-3-Mounting of engine must not strengthen the car in anyway.

5-4-Lower engine cradle will be allowed with NO front plate. Pulley protectors will also be allowed. No use other than what it is made for will be permitted. Max 5/8" thick. Cradles can not extend more than a few inches past the ears on the block where it mounts. (See picture of cradle on second last page).

5-5-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.

5-6-2003 and newer FOMOCO's 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.

5-6-You may chain engine in place. 1 chain per side.

5-7-you must run an air cleaner

5-8-No starting fluids allowed

5-9-No distributor protectors allowed. Clamps are acceptable

5-10-Coil protectors and plug wire protectors are acceptable, however must be approximately the size of the back of the head. Anything larger will be cut. If you devise a way to use them as a kicker or brace, they will have to be removed completely.

## **6 Transmission:**

6-1-You may use any type of mount

6-2-If not using the factory cross member, you may use 2"X2" square tubing.

6-3-Any type of coolers are acceptable. But must be securely fastened in passenger compartment.

6-4-3/4" hose attached to fill tube is recommended.

6-5-Metal or braided lines must be used. No fuel or low pressure hose allowed.

6-6-Any type of shifter may be used. But can NOT strengthen the car in any way.

6-7-No skid plates

6-8-You may use a transmission protector/brace but must not act as a kicker in any way. Floor must be cut out clearly around.

6-9-Protector may only attach to the transmission and only to protect the upper half of tranny. (See picture of sample trans brace on last page.

6-10-You may only run a protector if at least  $\frac{3}{4}$  of top of transmission is visible.

6-11-If deemed you are using it as a kicker, you will need to remove it, or cut firewall and floor out.

6-12-Aftermarket bellhousing will also be accepted instead of a brace. One or the other. Same as a brace, it may not be used as a kicker, and the floor must be cut out around it.

6-13-Any type of driveshaft is acceptable.

## **7 Rear Differential:**

7-1-Diff swaps are allowed but must use stock mounting brackets.

7-2-You may weld stock brackets, or stock equivalent to housing if doing a swap.

7-3-No external bracing added to diff.

7-4-Any passenger vehicle diff is allowed.

7-5-You may lengthen or shorten trailing arms. Trailing arms can be reinforced.

7-6-You may chain the diff with one wrap of chain per side. Chain may go around frame but must not attach to the frame in any way and may only be  $\frac{3}{8}$ " standard chain in size. Chain links can not be welded.

## **8 Rear Suspension:**

8-1-Coil cars can NOT be converted to leaf springs and vice versa.



8-2-10 Leaf max. Must have a minimum of 1" stagger. 3/8" max thickness and 2 1/2" maximum width.

8-3-No extended shackles.

8-4-On leaf cars, lower spring plate may be 1'4" flat plate.

8-5-No welding of spring packs. 4 leaf clamps per side max.

8-6-No flat sprung cars

8-7-Coil Springs may be bolted, tied, or welded to differential.

8-8-Coils may be doubled and clamped, chained or wired together. But NOT welded together. They can only be welded to the housing.

8-9-Stock style shocks only

8-10-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 the body. Lower mounts may only be 4"X4"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.

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

9-1-2003 and newer FOMOCO 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.

9-2-Any steering column is acceptable. Steering U-joints are allowed

9-3-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.

9-4-Sway bars must remain stock in stock configuration with stock or stock equivalent mounting hardware or be removed.

9-5-Coil spring spacers are allowed.

9-6-Center link may be lowered.

9-7-Any power steering pump is acceptable

9-8-You may weld upper control arms to frame with 2"X4"X1/4" flat bar straps. 2 per arm.

## **10 Bumpers:**

10-1-Front bumpers may be factory loaded or homemade but must not exceed 14" from the center point to the back side, where the bumper mounts to the frame or shock mounts. If putting a point on a homemade bumper, it must be the same shape and dimensions as a factory pointy. 1/4" thick material max size for a homemade bumper, or for filler material on a stock bumper. Homemade bumpers can not be any larger than a factory bumper.

10-2-If you choose to hardnose your bumper, you may use 10"X4"X1/4" 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. If you choose to cut the plate, you can only use 1 piece, not 2. Bracket cannot extend more than 10 inches from end of the frame.

10-3-Front frame may be shortened up to the first body mount, but the rad support must remain in stock location

10-4-A 4"X6"X1/4" plate may be used on the front of the frame as backing to the bumper.

10-5-Bumper swaps are allowed

10-6-You may trim and flip your bumper

10-7-Max 22" to bottom of front bumper.

10-8-Bumpers may be chained with one loop of 3/8" chain to hood, core support, trunk lid or taillight panel.

10-9-Rear bumper must be factory origin bumper. You may pinch and weld the outer skin to the back internal structure of the bumper. Ends and holes can not be capped or filled. Must be able to verify bumper is not stuffed or reinforced.

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

11-1-Radiators must be stock or stock equivalent. Aluminum radiators are accepted. Must be mounted in stock location.

11-2-Any fan is allowed, but must be shrouded or have hood over it.

11-3-Rad support spacers are allowed. 3" max OD 6" max length. May be welded to the frame or the 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.

11-4-No supplemental cooling devices are permitted.

11-4-No antifreeze

11-4-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.

## **12 Fuel System:**

12-1-No plastic fuel tanks.

12-2-7.5 gallon max capacity

12-3-Original tanks must be removed

12-4-tank is to be securely mounted behind drivers seat.

12-5-any type of gas pedal is allowed

12-6-Automotive pump gas only. (No alcohol systems)

12-7-Any type of fuel pump is allowed. Electric pumps must have a clearly marked shut off switch.

12-8-All fuel lines passing through any panels must be protected.

12-9-Tank must not reinforce car.

## **13 Tires & Brakes:**

13-1-You may run any type of air filled tire. Max 14 ply

13-2-Max rim size is 16"

13-3-Weld in wheel center will be allowed. Max 8" centers

13-4-Flapper tires allowed. Doubled allowed as well

13-5-No split rims, studded tires or foam filled tires. No solid tires.

13-6-No homemade rims allowed

13-7-Valve stem protectors are allowed. Any wheel nut allowed.

13-8-All Wheel weights must be removed.

13-9-Any type of braking system of configuration is allowed

13-10-If using a pinion brake, the mounting must be only to the center section and not to the axle tubes. It must not strengthen the housing.

13-14-If using floor mounted pedals, they must not strengthen the car at all.

## **14 Batteries:**

14-1-You may run a maximum of 2 12Volt batteries

14-2-Must be securely fastened in the drivers compartment of the car.

14-3-Batteries must be covered with floor mats or equivalent, unless they are gel batteries.

14-4-Must be in a secure battery box. No wooden boxes. Can not reinforce the car.

## **15 Hood & Trunk:**

15-1-Hoods are mandatory

15-2-Must have a hole cut in hood to extinguish a fire.

15-3-Bumper straps will be allowed. 2"X1/4". 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. Do not cross straps. Maximum 36" length.

15-4-Bumper straps will also be allowed from the rear bumper to the trunk, following the same rules as 15-3

15-5-Must be bolted, chained or fastened in a minimum of 6 places, maximum of 8 places, including pins through front body mounts.

15-6-Maximum washer size if 6"X6"

15-7-2 mounting points may attach to the frame through original body mount.

15-8-Max redi rod size is 1-1/4"

15-9-You may use 2 pieces of 2"X2" angle iron 6" long welded to body & hood or trunk, then bolt together with 2 3/8" bolts. Angle iron can NOT be welded across the seam.

15-10-You may use up to 20 3/8" bolts to bolt hood skins together

15-11-You may tuck or canoe trunk lid. But light panel must remain vertical. Must have a 10"X10" inspection hole cut in trunk lid.

15-12-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 mis and match welding and bolting, as long as it's a maximum of 6 points.

15-13-Trunk may be welded with 6" of weld with 2"X1/8" flat bar as filler, but will count as one of your 6 spots. Welding must be 6" on 6" off, up to a Maximum of 6 spots.

## **16 Body:**

16-1-Body mount rubber bushings must remain in place, except where all-thread passes through. Bolts can be replaced with grade 5 bolts of the same size. If tilting/cold bending your car, you can use

additional washers/spacers of similar size to the body mounts at the firewall to allow a tighter fit between the body and the frame.

16-2-Wheel wells may be trimmed

16-3-Any creasing of the body is allowed

16-4-8 3/8" bolts per wheel well opening are allowed to bolt skins together. Maximum washer size is 2"

16-5-Rotted out metal may be patched with same thickness material.

16-6- 2 Vertical window bars are allowed with 2 horizontal bars across. Going from roof to the firewall.

16-7- 1 rear window bar is allowed, roof to speaker deck or window seam only.

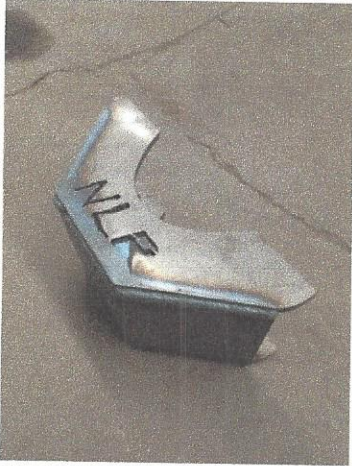
16-8-Window bars may be bolted or welded. If welded, no more than 6" of weld per end.

16-9-Side windows may have 1 bar per window.

**Sample Pictures:**



Example for type of cradle allowed and pulley protector.







Example of trans braces allowed.