Valentine Demolition Derby Rules 2018 Weld Class

Car Preparation

1. All glass, plastic, chrome, and interior must be removed from car before arriving to the derby including trailer hitches & brackets.
2. All decking in station wagons MUST be removed!!!
3. Tires no bigger than 17 inch, No split rims, No studded tires. Foam filled or Doubled tires OK-we don't want any flats!!! Valve stem protectors OK. Tires may be screwed to rims.
4. Driver must have a fire coat or non-flammable jacket to wear -safety approved glasses, face shield or have FULL faced helmets. Long pants are required and shoes are required.
5. You must use a radiator and it must be in stock location. All cars must have working brakes.
6. Factory fuel tanks must be removed and may not be reused. You must use a boat tank or well made fuel cell and it must be properly secured and covered. No gas cans. Plastic gas tanks must be placed in a metal box!! Fuel line must be secured and fastened properly. Keep away from exhaust. Place fuel cell behind driver's seat or in the center of the car where the back seat, use to be.
7. Transmission coolers will be allowed, but must be safe and properly secured.
8. Batteries must be moved to passenger floorboard close to transmission. It must be properly secured and covered.
9. You must have a number In Bright colors on each front door and must have 15"x15" roof sign with car number on it for judging
10. Seat belts are required, must be functional, and fastened to the floor or seat bracket. Must be safe.

Car building: WELDING:

1. Only the Outside of Doors, trunks & Tailgates may be welded solid with 3 inch wide straps x 3/16 inch thick or smaller fill materials. Top of the doors may be rolled over and welded with no added materials. If you decide not to weld, then you are allowed to chain/bolt/wire them shut with UNLIMITED use of chain/bolts/wires.
2. You can weld frame seam from the front of the A-arms forward top side only! You are allowed 16 inches of additional frame welding from the firewall/dash mounts forward per frame rail. Frame seams can be re-welded if seam has broke apart or missed by factory welder but must call first! Must skip weld that area to prove it was broken or missed. The frame seam weld can't be larger than 1/2" wide or it will be cut!! The uni-body is considered the frame on Mopar cars, which means No bolting the seam.
3. ****YOU MUST HAVE A ROLL-OVER / HALO BAR** which must be welded to the top of the frame or floor and welded or bolted to the roof – no kickers going to the back or front of the car **on interior**. You must weld a bar behind the seat from doorpost to doorpost, it can be an X, you must also have a bar across your dash, you may connect the dash bar to bars behind seat across the inside of front door only, and you may also weld your steering column in. Back of cage including roll bar, can only be 10" from back of seat. Dash bar must be 6" from dash sheet metal and not less than 6" from floor (tranny tunnel). **Nothing is allowed on the front side of dash bar!!** Dash bar must be located no farther back than inside seam of front doors. You will be allowed 2 down bars on the inside on driver's door going down from the inside cross bar. Allowed 2 down bar on the inside of the passenger's front door but cannot be any farther forward then the inside front door seam & can go to frame.
4. ****FOR DRIVER'S SAFETY: You MUST weld, bolt, or both, an 8 inch plate (MINIMUM – but prefer HALF THE DOOR COVERED) that is at least 3/16 inch thick but no more than ONE inch thick,**

across the driver's door (inside or outside or both – driver's choice), not less than 6 inches and not more than 10 inches past each front and rear seam (no grader blades, channel iron, or I-beams allowed).

If C-channel is used, it MUST be cut so it is just a FLAT piece of metal!

Bumpers:

5. Bumpers are interchangeable. Any automotive bumper and bumper brackets may be used on any car, but no more than one set of bumper brackets may be used. You can weld shocks to shock towers. You can collapse shocks, and you can bolt the shocks to the towers with ½" bolt or less, and it must be done vertically. ** No brackets are allowed to extend any further back than the very front most part of your top-front a-arm bracket. Instead of using bumper brackets you are allowed to use ONE 4" wide x 3/8" this strap extending from your bumper down one side of the frame and cannot extend any further back than the very front most part of your top-front a-arm bracket. You are also allowed to wrap this strap around the front of the frame 4" to create an "L" shape this is to give you enough material to weld your bumper to the strap. Do not abuse this rule-you will cut it!

6. You may reinforce bumpers on the inside of the bumper. The bumper chrome must remain the stock shape but you may have metal put inside for reinforcement. You may trim bumper ends or fold them round. Welding the bumper skins (chrome to inner liner) is allowed. Weld them solid we do not want them coming off. **No welding bumper to the body in any fashion. NO HOMEMADE BUMPERS!!!!!!!**

Bumper height not to exceed 24" to the bottom of the bumper to the ground and must be a minimum of 14" from the ground to the bottom of the bumper. Bumpers must be in stock location.

7. Front and rear bumpers may have 4 loops of wire from radiator support/trunk lid or deck (to sheet metal only do not go around 1 inch all thread!! These cannot be placed in front of the radiator.

HOOD/TRUNKS:

8. You can fold hoods or trunk decks over but 60% of the hood and trunk lid must be in factory location. No tucking of wagon roof on Leaf spring wagons. 80's & newer wagons may tuck roof down with 4 spots holding the roof down to the car body only—NOT Frame.

9. 2 - 1" All-thread may go from the trunk lid to frame, MUST go through body mount hole. You may use wire in 2 spots with 4 loops from trunk lid and may go around the frame with the wire. CAN'T DO BOTH. Where trunk meets floor may be attached in 2 spots to floor-2 bolts.

10. You may "CANOE" YOUR TRUNK LID / SPEAKER DECK to the trunk floor; HOWEVER, THE REAR QUARTERS/FENDERS MUST REMAIN STOCK HEIGHT!! If speaker deck is cut, it MAY NOT be welded or reconnected in any fashion!!

11. Hood must have at least a 12 inch square hole cut out in case of fire. You are allowed 12 extra 3/8" bolts to bolt your hood skins, (NOT TRUNK SKIN) back together. You will be allowed 8 hood bolts; you MUST have at least 4 hood bolts. You may have up to 1" all thread - 2 may be used from the hood down to the frame, but must go through core support body mounts. The other 6 hood bolts must be welded to sheet metal only. You are allowed to use 3x3x1/4 angle iron welded to hood and fender for hood tie downs. Besides the 2 front bolts only one other method may be used.(If you use angle irons you are not allowed to use all thread or hood

plates.) Chrysler products may run all thread behind radiator support down to top of frame and be welded to top of frame with no added material – All thread may pass thru frame. Hood bolts must be sheet metal to sheet metal. Hood must be open for inspection. Plates for hood bolts cannot exceed 5"x5"x1/2" inch. Hood bolts can be up to 1 inch in diameter.

12. Body mount bolts can be replaced with 1" bolts, Bolts may extend threw body and have up to a 5"x 5" x ¼" thick washer on top. Bolt must be up inside of frame as factory and may have larger washer inside of frame. Washers inside frame may not be used as a gusset! If there is factory rubber mount without a body bolt you can add the bolt to the mount. **Body may not be sucked down tight to frame. Must use factory spacers or something with equal thickness.**

SUSPENSION:

13. Suspension must be at stock height. Leaf springs must be stock, you may add one spring as long as the main leaf spring, you can't wrap the added leaf spring to make a double main - tow packages OK. The Main leaf spring must be the top spring in the spring pack and leaf springs must stagger down with at least a 2 inch stagger from longest to smallest. You can re-clamp springs, 6 clamps per side of axle 6 left and6 right.. Homemade clamps can't exceed 2"x4"x1/4". You can put spacers in sagging coil springs to get your height. You can bolt or wire coil springs to rear-end and frame to prevent springs from falling out. You may weld leaf spring mounting brackets to prevent them from becoming unbolted. You can loop chain or wire from rear end & springs to frame in 4 spots on each side. No bigger than #9 wire or 3/8" chain or cable may be used. **NO LEAF SPRINGS UNDER ANY CAR THAT DID NOT COME WITH LEAF SPRINGS.**

14. Mopars can weld mounting brackets to uni-body where leaf springs are mounted factory to uni-body frame. Include rear shackle box.

15. Rear-end control arms may be reinforced, but must be workable. They may be shortened or made longer as well. Homemade OK!!

16. You may use ¾ or 1 ton rear ends with 8 lugs. You can tilt rear end if you wish. Welded or posi-track highly recommended

17. Rear-end Housings may be re-enforced. Hybrid rear-ends are allowed- must be mounted in factory location of car that you put in under!

18. Front arms may be bolted, chained or welded down to get your bumper height. Welding 2 straps 2" on frame 2" on A-arm.

ENGINE MOUNTING:

19. Engine mounts may be welded to engine cradle. **Engine must be mounted within 2 inches of stock location.** Any skid plates on engine or tranny can only be mounted to engine/ tranny and **CAN NOT** be mounted solid to frame or cross member. Must be able to slide.

20. Use motor and tranny of choice. You may chain or weld motor and tranny to keep in place (don't strengthen the frame). Nothing on the engine can be used to re-enforce the frame/car body, etc. If any parts on the engine or tranny are being used to make the car stronger, you will be asked to cut or take that part off before you can run.

21. Distributor protectors, pulley and valve cover protectors are allowed but, **MUST** be mounted to the engine or transmission **ONLY**! Backside of the DP may not be wider than 12" and must be located **no closer than 6" from dash bar, windshield bars or any other bracket. Do not weld, bolt or connect DP to**

body! Extended forward supported DP mounts/brackets are allowed but may not extend outside of the valve covers or any further forward than the water pump!!

****PLEASE READ THE BELOW VERY CAREFULLY FOR YOUR OPTIONS IF YOU RUN A DP!!****

21A): if you choose to run a DP and four points of contact (2 front & 2 rear) or two front points and a mid plate welded from motor to the frame as explained in 21D below, the fire wall will have to be cut no less than 16" wide and 12" deep directly behind the center of the engine block and the DP will have to be 6" from dash bar or DP will need to be removed too.

21B): if you choose to run a DP and zero points of contact from motor to top side of the frame rails in 4 locations and only run a lower mounted engine cradle welded or bolted to the factory engine cross member, the firewall may be LEFT FULLY IN TACT!

21C): transmission cradles, braces or struts (to protect the transmission) are allowed and must be located at least 6" away from the dash bar. You may only use 2 transmission protector bars (these must be no larger than 1" square or round) down along the transmission bell housing. These bars can connect to the back of the engine heads or DP but MAY NOT be connected to the transmission cross member and may only be attached to a plate mounted on the back of the transmission in the factory bolt holes. These 2 protector bars may be gusseted with NO MORE THAN 4" in all 4 corners and tied together in the center with a gusset NO GREATER THAN 6"X6" totaling 5 gussets maximum. If you manufacture your own tranny mount or cross member DO NOT bolt the tranny mount to the cross member when using a tranny protector – as the only method that will be allowed is a loop of chain or nylon strap (NO CABLES) looped over the tail shaft housing and around the cross member. ANYTHING NOT MEETING ANY OF THE ABOVE RULES AND YOU WILL BE FORCED TO CUT YOUR TRANSMISSION FLOOR TUNNEL COMPLETELY OUT!

21D): Transmission and engine oil pan skid plates may be used but MAY NOT make any contact with frame or cross member or strategically reinforce the motor/transmission from moving back. These skid plates should serve one purpose ONLY: TO PREVENT THE OIL PANS FROM BEING PUNTURED BY DEBRIS ON TRACK OR OTHER CARS!!!!

21E): if NO cradle is used then you may have two inch straps, ¼ inch thick, from the motor head to frame on top side of frame next to A-arm on front side of motor and can be welded with no added metal! You will be allowed two 2 inch straps, ¼ inch thick, on the rear of the motor connected from the motor heads to 3" from back of A-arms. If this is used to re-enforce frame, straps will be cut!

STEERING:

22. Tie-rod ends must be stock, but center can be re-enforced, A-arms, ball joints, and all other steering/suspension must remain stock. You may alter your steering column to prevent loss of steering (steering knuckles, homemade steering shafts, etc).

FENDERS:

23. You may cut wheel wells for tire clearance & you may weld fender over tire back together. Fenders may also be bolted together with 12- 3/8" bolts or less. The rear quarter panel is considered part of the rear fender.

OTHER RULES:

24. For safety, you are allowed 1 strap in each door window opening straps can be 2" wide – ¼" thick and can be welded 5" on the door & 5" on the roof – you may not use wire if you use straps ** Hardtop cars may have another strap at the door post. **You must have 2 bars in windshield from HALO BAR to dash for safety reasons (this is to prevent windshield area from caving in incase of a roll over).** The windshield bar can't be any bigger than 3" wide. A 5"X5" plate may be used to connect these onto dash. The windshield bars must be a minimum of 3" outside the DP!

25. **YOU MAY HAVE ONE BACK WINDOW BAR, MUST BE WELDED OR BOLTED TO TOP OF DECKING, (BUT NOT ONTO THE TRUNK LID).

26. You can run shifter through floor and you can have a switch panel. You may also have a hand throttle. If you are running an electric fuel pump – must be hooked up to your ignition switch – so when your car shuts off – it shuts off.

27. You are allowed 2 spots with 4 loops of #9 wire or 1 loop of 3/8 cable with 1 turn buckle in each window opening and may go to the frame. Turn Buckle must have 3 inches of clearance from body. You may weld washers around holes on car body. Wagons can have 2 all-thread from roof to frame but must be thru body mounts. If you use all-thread, only 1 spot of wire/cable per back windows.

28. You may run wire from frame rail to frame rail underneath back of car, behind rear-end with 4 loops of wire or 1 loop of 3/8" chain or cable in 1 spot only. This must go around the frame; it cannot be bolted to the frame.

29. You are allowed to bolt Factory body seams together. NO WELDING!!!!

30. 1977 & newer GM's only can weld 1 plate on the outside only 1 side of rear arch over rear end. This plate can only be 6 inches wide, 22 inches long and ¼" thick. You must drill a ½" hole in the plate so that we can see the thickness. You will not be allowed to patch over this plate if it bends! You must follow the frame rails with the plates.

31. Gas tank protectors are allowed. No wider than 24 inches in center of car. **Must be at least 2" away from rear sheet metal on fresh cars, pre-rans get exception but cannot have fuel leaks. If any point car is leaking fuel it will be disqualified for Insurance reasons for that Heat but can come back in Consi if resolved!!!!!!** This may angle straight back from rear seat bar in center of car and must be 4" off the floor tin. Gas tank cannot be connected to protector unless gas tank is mounted to top of protector and not to floor. Protector must be free floating - not connected to anything but back bar!

32. No frame shaping or manipulating of frames. You will be allowed to hammer in the sides of rear arches only. No squaring!

33. Front frame can be shortened but only to the front side of radiator support. Radiator support must remain in stock location.

RUST REPAIR & FRAME REPAIR:

34. You may repair rusted out sheet metal with sheet metal only. Leave the rust in place and repair over it. Rusted out frames may be repaired with 3/16 inch or less. You are allowed to weld the patch 2 inches past the rusted out area, leave the rust in place.

35. Bent frames only may be repaired with 4" X 6"- 3/16" thick flat plate. You are only allowed 4 plates per frame rail. The patch may be welded solid, but you must have a 1/2 inch hole in the patch. You can only repair the frame once in each place. No re-patching or layering of patches. Plates must have a 1" space between