

Whatcom Demo Derby Club

RULE BOOK DISCLAIMER

The rules and/or regulations set forth herein are designed to provide for the orderly conduct of racing events and to establish minimum acceptable requirements for such events. These rules shall govern the condition of all events, and by participating in these events, all participants are deemed to have complied with these rules. **NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATIONS OF OR COMPLIANCE WITH THESE RULES AND OR REGULATIONS.** They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to a participant, spectator, or official.

The race director shall be empowered to permit reasonable and appropriate deviation from any of the specifications herein or impose any further restrictions that in his/her opinion does not alter the minimum acceptable requirements. **NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM SUCH ALTERATION OF SPECIFICATIONS.** Any interpretation or deviation of these rules is left to the discretion of the officials. Their decision is final.

Big Car Rules FULL BUILD

Cars

1. Any North American passenger car is eligible.
2. NO IMPERIALS ALLOWED (this includes any form of imperial body or front clips)
3. No pickups, panels, carryalls, vans, four wheel drives, ambulances, convertibles or, t-tops allowed
4. Minimum wheel base is 103" and small cars maximum wheel base of 105"
5. All sunroof openings **must** be covered with sheet metal from the outside of the car and securely fastened to the roof.
6. Hearses, El Caminos and, Rancheros **ARE ALLOWED TO RUN NO VOTE NEEDED.**
7. 80's and new class is considered any metric car (gm77 and newer, ford79 and newer, mopar79 and newer)

Car Preparation

1. All glass including the windshield **must** be removed. [No removal of glass allowed at the track](#)
2. All light covers and bulbs, side mirrors, hub caps, grills, side chrome, plastic, door handles, locks, wheel weights and, pot metal **must** be removed
3. All flammable material **must** be removed from the inside of the vehicle. This includes carpet, rear and passenger seat, all interior trim, door panel and, roof liner. [Leaves and other flammable debris](#)
4. Trunks **must** be free of any debris
5. Inside of doors **must** be free of any debris [Including leaves and glass](#)
6. All trailer hitches, related brackets, reinforcements and, hardware **must** be removed.
7. Stock fuel tanks **must** be removed
8. Plastic inner fenders must be removed

Fuel systems

1. A limited capacity metal tank is required as a replacement gas tank.(6 gal. max. fuel capacity is allowed)
2. You must solidly mount the tank in the interior of the car, ahead of the rear axle, in the rear seat area and, at least 12" away from the inner door panels, center of the rear seat area is preferred.
3. Gas tank may **NOT** be bolted to the frame. Gas tank may **not** be used as a kicker to keep the frame from dropping or moving forward or backward.
4. **No** plastic tanks or boat tanks are allowed
5. All gas lines and fittings **must** be free from leaks **No Exceptions!**
6. Rubber lines fuel lines must run through a second larger hose such as a garden hose to prevent accidental spillage Through Fire wall and Cab walls. [Fuel lines may not run between battery box and passenger door.](#) We encourage you to replace rubber hoses each year.
7. A hole **must** be made in the floor board for fuel vent hose and Must be secured. [Vent hose must be looped above tank and secured through hole in floor](#)

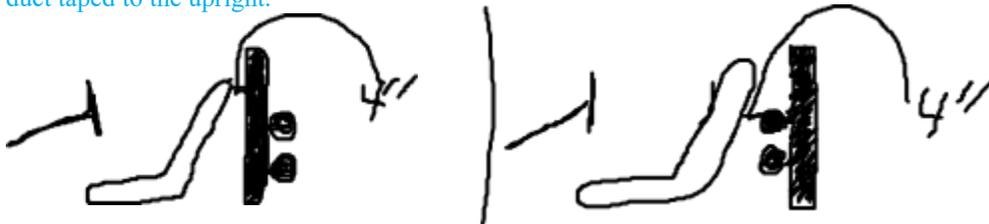
8. Electric fuel pumps are **optional**.
9. You may use a propane tank as a fuel tank. (gas only)
10. gasoline only no alcohol, nitrous, or propane
- 11.. Tanks may be mounted to the cross bar.
12. Gravity Fed / Bottom Fed. Fuel Tanks allowed **Must have ¼ turn shut off valve accessible**

Batteries

1. Batteries **must** be relocated inside of car and placed in a battery box made out of metal and fully enclosed. **Batteries must have an insulating barrier between top of battery and lid ex rubber, foam, wood**
2. Battery box **must** have a lid that covers the entire top of the box and it **must** be securely fastened shut. **No ratchet straps or bungee cords of any type or duct tape will be allowed to fasten lid shut.**
3. Switches or wires used for powering the car off **must** be within reach of the driver while harnessed in. There will be no acceptable excuse for not being able to turn your car off in an emergency.

Safety Bracing

1. A front cross brace **must** be installed above the steering column from window post to window post (in the former position of the dashboard). This front cross bar **must** not touch the fire wall and must be 5" from the fire wall, and in no way may it be tied into a distributor plate. In other words dash bar should be a single round or square tube with a flag holder nothing else. It must be a minimum 2" diameter pipe or square tube with 1/8" wall thickness and securely fastened into position. The dash bar in no way may touch the floor or transmission or be attached to the frame of the vehicle. Dash bar cannot have anything that can be considered a kicker coming off it. **Nothing may stick past the dash bar.** If a two piece dash bar is used, it must be securely fastened so that it cannot collapse (welded or minimum ¾" bolt)
- 2A. A rear cross brace **must** be installed from door inner skin to door inner skin, as close to the door post (B-pillar) as possible, and at least halfway up the door from the floor. It must be a minimum 3" diameter, 1/8" wall pipe or square tubing, with plates welded on the ends. The end plates may not extend more than 15" past the cross bar (towards the rear of the car). The cross brace must be bolted with a minimum of two ¾" bolts, extending through the side irons. If the cross brace is collapsible, it must be pinned with a ¾" bolt (minimum) or welded so that it cannot collapse or rotate.
- 2B. All cars must have 1 upright (vertical) post, upright must be located directly behind the driver's seat. The upright must be made of minimum 2" diameter, 1/8" wall pipe or square tubing with a minimum 4"x4" plate welded to the top. The upright will extend from the roof to the cross bar, or from the roof to the floor. If using a two piece upright it must be pinned with a ¾" bolt or welded so that it cannot collapse. It must be held in place with a minimum of 2 3/8" bolts at the top and at the bottom with 2" washers on both sides of the bolts. Optional: you may add a second upright on the passenger side of the vehicle.
3. We want your cross bar and upright as close to the seat as possible. So you have a choice: Either your Cross bar or Vertical upright must be 4" or closer to your seat. Your upright and cross bar must be welded together with a maximum 2" spacer connecting them. **There must be a solid metal support behind the headrest area of the seat, no more than 2 inch gap between headrest and support, and the headrest must be duct taped to the upright.**



4. Both front doors must be reinforced with a minimum 8" wide, 3/16" thick channel iron. The side iron must not be more 6' in length and must begin ahead of the front door seam and Must be 6" in front of the front door seam. The side irons must be bolted with a minimum of three ¾" bolts that extend through the inner panels of the door **and may be welded to the sheet metal.** Backing plates and washers must be used

and must be a minimum of 4"x4" x3/16" thick on both the front and rear ends of the door bars. The front bolt must be located no further back than the front fender/front door seam. One bolt must go through the cross bar plate. The ends of the side irons must be cut at 45-degree angles.

5. **No kickers will be allowed.**

6. Gas tank protectors are allowed and must be at least 4" from all sheet metal and only mounted to the cage. Maximum height is 16" from bottom of protector. It cannot exceed 36" wide and must be centered between rear humps. You may not remove rear sheet metal for clearance and protector must be at least 4" from all sheet metal.

7. In Lieu of outside Channel Iron, You may use Inside door bars. They cannot exceed 6' in length. And no more than 6" in front of front door seam. Material used: You may use Channel Iron 8" minimum 3/16" thickness or 4" by 4" square tubing 3/16" minimum thickness.

8. Halo bars may not attach to the frame. If using halo bars, you must also incorporate an upright directly behind the driver's seat. Max height for protector 16" from bottom of protector

9. All safety bars must be a minimum 6" off of the floor and 4" off of the transmission tunnel.

Seat and Seat Belts

1. A lap and shoulder seat belt is **mandatory**. they must be securely mounted and have a minimum 2" diameter flat washer where it is mounted through the sheet metal.

2. Four point harness is recommended

3. Seat can be OEM stock of any make/model car(Honda prelude/CRX seats not recommended).

4. Place a padded headrest on the upright behind the seat if the seat was not equipped with a headrest **mandatory**.

5. No fiberglass or plastic racing style seats will be allowed.

Building, Welding and, Securing

There will be no other welding other than what is stated in this section. If you have any questions about welding please call the head tech official!! If welding is found on the frame or sheet metal that is not specified in this section you will be asked to cut them or leave.

1. Doors may be secured shut by either welding or bolting or chaining. You may weld only the outer door seams solid. You may use filler no larger than 2"wX1/8"t or 3/8" rebar or equivalent. If you bolt the doors shut you may use up to four 1/2" bolts per door. If you chain the doors shut you may use 2 chains no larger than 3/8" thick per door.

2. **You may weld the outer door panel to the inner, on the passenger doors using 2" wide 1/8" thick flat bar**

Building, Welding and, Securing

2. Hoods can be secured in a maximum of six places other than stock only two of the six can be secured to the frame. You may use bolts or chains.

- bolt size must be a minimum 1/2" and maximum of 1" diameter only two bolts in an area on either side of the radiator may extend through the frame. Bolts must not exceed 4" above the vehicle surface. Max plate size is 6"x6" diameter and no thicker than a 1/4". You may weld a piece of angle iron 3"x3"x6" long 1/8" thick to the fender and one to the hood **for any of the 6 connection points**. - chains must be a minimum 3/8" and maximum 1/2" welded type chain. A bolt no smaller than 3/8" and no larger than 1/2" with washers must connect the chain

Hoods must be opened for tech bring your hoods to tech. You may run without a hood.

3. Trunks may be fastened in a maximum of six places other than stock only two of the six may be secured to the frame, you may use any combination of welds, bolts, or chains.

-welds must not exceed 6" in length. You may use filler no larger than 2"w X 1/8"t or 3/8" rebar or equivalent

-bolts maximum of two 1" bolts are allowed with a maximum plate size of 6"x6" diameter and 1/4" thick. All other bolts will be no larger than 1/2" diameter with a max washer size of 2"

-chains must be a minimum 3/8" and a maximum 1/2" welded type chain. A bolt no smaller than

3/8" and no larger than 1/2" with washers must connect the chain

4. Bumper swaps are allowed,

5.. **If not using brackets stock to the car, you are allowed 10" brackets from the front of the frame that may be located on top, side, or bottom of the frame but not inside the frame. Bracket may be 3/8" plate 4" wide with a 4" L on the end to help mount the bumper or a stock oem car shock cut to 10". You may only use 1 set of brackets.**

6. Front and rear bumpers may be welded solid (bumper to bumper, bumper to shock, shock to shock, bracket to bracket, bracket to frame) no adding metal. **There must be two 3/4" inspection holes in between the frame rails and one 3/4" inspection hole in each end. If tech is still unable to properly inspect the inside of your bumper, you will be required to add inspection holes as necessary.**

7. Bumper **cannot** be welded to the body. **Except** if you are using any welds that are securing your trunk lid. **Any questions call a tech official.**

8. Bumper shock itself may be collapsed and welded. No added material.

9. You may weld the outer bumper skin to the inner bumper structure of the bumper.

10. To simplify most of the bumper welding rule we are allowing the frame seams to be welded from the front edge of the A-arms forward. Top, bottom and, sides seams only no adding metal weld width can be no wider than a half an inch. No welding the A-arms to the frame.

11. ABSOLUTELY NO STUFFED OR AFTER MARKET BUMPERS WILL BE ALLOWED A Maximum 5" by 5" by Maximum 3/16" SQUARE tube may be used, but must be open ended and straight. They cannot extend more than 10" from the outside of the frame. No skinning or additional metal may be added to the tube except small plates to mount if needed. Tube bumpers must be painted (intention is to make them look more stock to the crowd).

12. Aluminum bumpers may be secure with one 1" all thread per side no plates other than a 2" flat washer or two half inch all thread per side no plates other than a 6" flat washer. Aluminum bumpers must **also** be secured with chain 3/8" min. and 1/2" max.

13. ABSOLUTELY NO PAINTING OF THE FRAME, YOUR CAR WILL NOT EVEN BE INSPECTED!!!

Window and Window Screen

1. two chains, or two flat bar 3" wide 3/16" thick or two 1x1x1/8 pipe down the center of the windshield from top to bottom. Window bar or chain must be secured with a minimum 3/8" bolts maximum 1/2" bolts. Window bar or chain **cannot** be welded in place. **Bars may only extend onto the firewall 6" and 12" onto the roof and may be any distance apart at top and bottom. Max 6"x6"x1/4" plate for attachment at each end of each bar.**

2. **Optional** 2 Rear window bars will be allowed 1/2" thick 2" wide. They cannot touch the trunk floor, bumper, or the rear pins and can only go 12" on the roof from the rear of the car. They cannot be placed on the quarter panels. No pipe flat stock only **Max 36" long, 12" on roof and 12" on trunk may not touch pins and may not be connected together (the 12" attachment on each end is included in the 36")**

3. **Optional:** a protective screen of 1/2" wire mesh or smaller maybe installed on the front windshield in front of the driver

Radiator and Coolers

1. Radiators must remain in the engine compartment **in stock location.**

2. Radiators and/or fans may be removed

3. An expansion tank maybe used instead of a radiator. It must be made of metal, be no larger than a 1 gal.(NOT MUCH BIGGER THAN A MILK JUG) **1 gallon is equal to 231 cubic inches, multiply the length in inches x the width in inches x the height in inches, if this is more than 231, make the expansion tank smaller.** When mounting it, **must be bolted in place using max four 3/8" bolts.** it may in no way strengthen the frame may be mounted directly to the motor. Cannot be used as a kicker. Subject to tech approval

4. Transmission coolers are allowed and can be mounted in the engine compartment or inside the car attached to the firewall and totally enclosed in a metal box must use high pressure lines and must be leak free. Coolers may not be mounted to the frame or used as a kicker to keep the frame from dropping or moving forward or backward subject to tech approval.

Motor Mounts and Suspension

1. Motor straps welded to the frame and bolted to the motor are allowed. Straps may be a maximum of 2" wide, maximum of 3/8" thick flat bar. You are only allowed two straps per side of the motor. **ONE 2"X2" ANGLE IRON COUNTS AS TWO STRAPS. If you are running an engine cradle you cannot run extra straps. An engine cradle is any metal device that attaches both motor mounts together underneath the engine. Cradles may not be higher than the lowest point of the valve cover gasket. If your motor mounts are not connected using a cradle, you may bolt motor straps to the head or front of block.**
2. Engine straps may go no further forward than 3" in front of the forward most part of the cylinder head and, no further back than 3" past the rearward most part of the cylinder head.
3. Engine cradles are allowed as long as they mount in the stock location and in **No Way** strengthen the frame. 1/2" max thickness of material. **ANY QUESTIONS CALL YOUR HEAD TECH OFFICIAL.**
4. No motor plates will be allowed **A motor plate is any metal device used to protect or mount the engine that is above the allowed engine cradle.**
5. Any 5 lug rear end may be used. **Must be a factory rear end housing from a production car. Bracing of the housing is allowed. Aftermarket gears and axles OK.**
6. Upper/lower control arms maybe lengthened or shortened to achieve pinion angle. You may not reinforce the control arms in any way.
7. Leaf conversions are not allowed. Suspension must remain stock maximum of 9 leaf springs.
8. You may clamp leaf springs. 4 clamps per leaf 2"x 1/2" max clamp size, 2- 3/8" bolts per clamp.
9. You may not weld suspension solid. **You may not replace shocks with bolts, all thread, or weld shocks solid.**
10. **ABSOLUTELY NO TRANSMISSION PROTECTORS WILL BE ALLOWED**
11. **WATTS LINK BRACKETS OK. MUST BE BOLTED IN AND MUST USE THE STOCK TRAILING ARMS. NO RIENFORCEING THE TRAILING ARMS.**
12. **03 AND NEWER CROWN VICS MUST USE THE STOCK ALUMINUM CRADLE AND SUSPENSION.**
13. **Front and rear Bumper min height is 15" to the bottom of the bumper. Front and rear Bumper max height is 22" to the bottom of the bumper**
14. **No frame swaps**
15. **No welding coil spring spacers.**
16. **welding A arms down OK using (2) 3"x4"x1/4" flat strap per upper a-arm.**

Distributor Plates and Carburetor Protectors

1. Distributor plates are allowed. Distributor plates may not be bigger than 12" x12" flat plate.
2. Distributor plate may not be attached to the fire wall or to the frame in any way.
3. If the distributor plate is used you may attach it to the front/rear of the intake manifold on both sides of the carburetor with a maximum **1.75"OD** pipe or square tubing with one bolt to the plate and one to the intake. Supports can only be above the Air Cleaner by 1".
4. Pulley Protectors are allowed but can in no way be welded to your frame. 1/2" thickness of metal is max for the Pulley protectors. If the tech crew says it is excessive, it is! Call if you have questions.
6. HALOS are allowed, May be mounted to: water pump, Head, distributor plate. Intake. And may not exceed 1" above the air cleaner. **May be made from max 1" pipe or square tubing, and max 1 bolt at each end of each support, same as distributor plate in rule 3. Up to tech discretion.**

Exhaust

1. Stacks are allowed.
2. Any stock exhaust is allowed
3. **NO STACK PROTECTORS ALLOWED**

Carburetors

1. Any gas carburetor is allowed. No alcohol or propane will be allowed
2. Air cleaners or suitable flame arrestor is required
3. Two 6"x6" holes must be cut in the hood on either side of the carburetor to allow for fire extinguisher access. Stack holes are acceptable for fire access.
4. No alternative starting methods allowed (I.e. starting fluid)

Brakes

1. All cars must have at least two working hydraulic brake and must be demonstrated at tech.

Tires, Wheels and, Tie-Rods

1. Any tire may be used, doubled and fork lift tire O.k. as long as they do not stick outside of the fenders at the start of the derby.
2. No split rims.
3. Wheel weights must be removed
4. Valve stem protection is permitted
5. Spring shackle must remain stock no reversing the shackle to lift the ride height.
6. Tie rods may not be reinforced, no pipe tie rods and must have stock ends

ROOF SIGNS

1. Car numbers will be painted on the signboard.
2. Numbers must be at least 18" high and a minimum of 2" thick
3. Signs must be contrasting colors such as black numbers on white background
4. If the signboard is unreadable the car will not be allowed to race until corrected

MISC.

1. You may cut the firewall for distributor clearance, but the hole must be recovered with a rubber mat or tin
2. Body bushings may be removed. If replacing bolts you must use stock size bolts. Washer may not cover body mount hole on the exterior of the frame **NO EXCEPTIONS.**
3. You may re-bolt hood skins. You are allowed 15 bolts maximum, 3/8" diameter bolt size, 1" max washer size.
4. You are allowed 5 bolts per corner of the car to re-bolt out and inner skins together. (5 in each fender and 5 in each quarter panel) 3/8" diameter bolts, 1" diameter washer. These bolts cannot touch the frame or be used to secure the trunk, hood or, bumpers to the body. **ABSOLUTELY NO WELDING OF BODY PANELS.**
5. Fire extinguishers are **NOT** mandatory, but highly recommended. If you have one it must be securely mounted and within drivers reach.
6. You may chain the rear humps. You will be allowed 1 wrap of chain per side. It may go around the rear-end one time and up through the body and around the frame one time and bolted together.
7. You may add two body bolts. No larger than 3/4" bolts and fasteners. Max washer size is 3"x3"x1/4". Must be between the firewall and the rear seat and cannot be used as a kicker. Must be brightly painted for easy viewing **CANNOT GO IN THE ARCHES AT ALL.**
8. Body spacers may be used no taller than 5" and must not be welded to anything and must stop at the body to allow for engine clearance. (ie frame to bottom of core support)
9. **NO STEEL AFTERMARKET TRANSMISSION BELLHOUSINGS ALLOWED.** Aftermarket aluminum bell housings are ok.

REPAIRING DAMAGED CARS OR PRE RAN CARS

1. Frame repair is allowed you can weld any crack in the frame with a single pass (**NOT SEAM WELD THE ENTIRE FRAME JUST THE SPLIT**).
2. You are also allowed (2) 4"x4"x1/4" plate per corner of the car. Plates can only be welded on three sides and the two plates cannot touch **minimum 1" gap between plates** each other. **You may cut or bend the**

plates but may NOT use the extra material that was cut off. Plates are only allowed for REPAIR or a crack, tear, or severe kink of the frame. You may not add plate to a non damaged section of the frame. If the frame rail looks undamaged and you plate it, take a picture of the damage. Violation of this rule will require complete removal of the plate and weld. Any questions contact head tech first!

3. Body panels may be skip welded back together if they are tearing. You may only weld a body panel back to itself, fender back to fender, NOT fender to inner fender (NOT SEAM WELDED) welds may not be any longer than 2" on and 2" off in length. No adding extra metal no exceptions.

4. All repairs will be inspected and anything outside of these guidelines will be not allowed to run. So if you have a question ask a tech official.

5. CANNOT WELD THE BODY OF THE CAR TO THE FRAME IN ANY WAY.

6. If you are running a pre ran car and it already has been plated you will not be allowed to add any more plate. And the plate that you used must be to the repair rules listed above no exceptions.

7. You will be allowed to repair bent or broken tie rods with a piece of tubing

8. No restubbing or replacing front frame on pre ran car.

9. no bumper straps

10. 9 wire will be allowed to hold bumpers on in the following way it may be doubled over and make one single loop around the bumper to the sheet metal or to the pins. One per side of the bumper.

MAKE SURE THAT YOUR CAR IS READY FOR TECH WHEN IT COMES THROUGH THE LINE (IE ALL BOLTS ARE TIGHT AND THINGS ARE SECURELY FASTEND DOWN) THERE WILL BE A LIMITED NUMBER OF CHANCE TO PASS TECH...

Race procedures

Driver's door hits can cause losing your place and payout and forfeit the opportunity to race in the next show

All body parts must remain in the vehicle until the race is stopped.

Tech has final say

Do not build your car in the pits

Evening only heats must be lined up for tech after the afternoon show

You must make an aggressive hit every 2 minutes or you will be timed out.

Sandbagging may cause you to lose your place and payout and the opportunity to race in the next show.

If your vehicle is rolled over, you are timed out at that time.

You are allowed 2 fires, the 3rd fire disqualifies you and you are timed out at that time.

After you pass tech your vehicle must be lined up for its heat. No modifications may be made at that time.

Hits after the horn sounds to stop a heat, hitting another competitor may be cause for disqualification

You must have a red flag to start the event, when you are timed out, a timer will instruct you to put up your flag.

You must wear a helmet, eye protection, long sleeves and long pants.