

## *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*

### **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 **must** be voted on by the club before they will be allowed to run
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
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.
4. Trunks **must** be free of any debris
5. Inside of doors **must** be free of any debris
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 maybe bolted to the frame. Gas tank may **not** be used as a kicker to keep the frame from dropping or moving forward or backward Subject to Tech Approval.
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 located in the passenger compartment should run through a second larger hose such as a garden hose to prevent accidental spillage on the driver.
7. A hole **must** be made in the floor board for fuel run off.
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. no gas tank protectors. Tanks maybe mounted to the cross bar cannot be further than 15" off the back

## Batteries

1. Batteries **must** be relocated inside of car and placed in a battery box made out of metal and fully enclosed.
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). The dash bar **must** not touch 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 of it. If a two piece dash bar is used, it must be securely fastened so that it cannot collapse (welded or minimum 3/4" bolt)
2. 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 3/4" bolts, extending through the side irons. If the cross brace is collapsible, it must be pinned with a 3/4" bolt (minimum) or welded so that it cannot collapse or rotate.
3. 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 and located as close to the seat as possible. If using a two piece upright it must be pinned with a 3/4" 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.
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 not extend no more than 6" in front of the front door seam. The side irons must be bolted with a minimum of three 3/4" bolts that extend through the inner panels of the door. 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. you may mount your gas tank to the cross bar cannot extend more than 15" off of the back of the cross bar and it cannot be used as a kicker it cannot touch the frame or rear seat sheet metal.

## 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 maybe secured shut by either welding or bolting or chaining. You may weld the only the outer door seams solid. You may use filler no larger than 2" w X 1/8" 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. **No welding the inner door seams or the outer door panel to the inner.**

## **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". If you are running a car that has the **plastic inner fenders you may weld a piece of angle iron 3"x3"x6" long x 1/8" thick to the fender and one to the hood on either side of the car over the center of the front wheel and bolt them together with 2 half inch bolts per side. You may use two of these per side( a total of 4 spots)**

- 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**

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, however you may **not** swap bumper brackets, brackets must remain original to the car. Any questions call tech.

5. Bumper brackets may not be relocated. They must remain in there stock location.

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.

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 it self 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**

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 2" flat washer. Aluminum bumpers must be secured with chain 3/8" min. and 1/2" max.

## **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.

2. **Optional** 2 Rear window bars will be allowed 1/2" thick 2" wide. They cannot touch the trunk lid 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

3. **Optional:** a protective screen of ½" 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.
2. Radiators and/or fans maybe 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). When mounting it, it may in now 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 in-closed in a metal box must use high pressure lines and the 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 mounts and transmission mounts maybe strengthened with bolts, welds or chains.
2. Motor straps welded to the frame and bolted to the motor are allowed. Straps maybe 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.**
3. 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.
4. Engine cradles are allowed as long as they mount in the stock location and in **No Way** strengthens the frame. **ANY QUESTIONS CALL YOUR HEAD TECH OFFICIAL.**
5. No motor plates will be allowed
6. Any 5 lug rear end may be used.
7. Upper/lower control arms maybe lengthened or shortened to achieve pinion angle. You may not reinforce the control arms in any way.
8. Leaf conversions are not allowed. Suspension must remain stock maximum of 9 leaf springs.
9. You my clamp leaf springs. 4 clamps per leaf 2"x ¼" max clamp size, 2- 3/8" bolts per clamp.
10. You may not weld suspension solid.
11. **ABSOLUTELY NO TRANSMISSION PROTECTORS WILL BE ALLOWED**

### **Distributor Plates and Carburetor Protectors**

1. Distributor plates are allowed. Distributor plates may not be bigger than 10"x10" 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" diameter pipe or square tubing with one bolt to the plate and one to the intake. Supports can only be above the carburetor by 1".
4. No other carburetor cages, protectors, or distributor plates will be allowed. Any questions call the head tech official.
5. big rock style DP are approved

### **Exhaust**

1. Stacks are allowed.
2. Any stock exhaust is 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 CAN & CANNOT DO**

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)

## **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 to plates cannot touch each other.
3. Body panels may be skip welded back together if they are separating. (**NOT SEAM WELDED**) welds may not be any longer than 2" 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

**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...**