Full Size Car (6 or 8 cylinder) - Regular Chain & Go Build

Any passenger car or wagon made in North America, (no hearses).

No Pre-1973 Imperials (including 1967-1973 Imperial sub frames) or Pre-1970 Lincolns.

*Ask Sean for more details if unsure.

(Refer to last page for contact info)

Our first concern of course, is safety; the safety of our drivers and their crew. Racing is dangerous but is also enjoyable. These vehicle preparation rules are designed to make all competitors equal and bring the "FUN" to the sport of racing. <u>Build a safe vehicle and have fun!</u>

All vehicles are subject to a technical inspection prior to the event. Wheels and brake drums will be removed. The use of a Bore Scope may be used for all vehicle inspections.

No other welding other than what is specified. You will not be able to run and will be disqualified from the event. If it doesn't say in the rules, it's not allowed.

Do not push the "gray area". Good chance you may not compete if you do.

All winning vehicles will be subject to a subsequent technical inspection to ensure the vehicle is compliant. Any vehicles not in compliance will be disqualified and compliant cars will be moved up in succession.

The only aftermarket parts that are allowed are pedals, shifter, transmission cooler, gastank, battery box and sliders.

No other aftermarket derby parts will be allowed.

Section 01: Car Preparation

- (a) All glass must be removed. The windshield is optional.
- (b) Flammable materials inside the car must be removed. These include carpeting, rear seat, and all interior trim including side & roof liners. Trunks must be free from any debris. As well, the inside of the doors must be clear of all glass and debris.
- (c) All light covers/bulbs, side mirrors, hubcaps, wheel weights, grills, side chrome, plastic, door handles, and pot metal must be removed.
- (d) All trailer hitches, related brackets, reinforcements, and hardware will be completely removed.
- (e) Stock fuel tanks must be removed.

Section 02: Fuel Systems

- (a) A metal tank is required as a replacement gas tank. You must solidly mount it in the interior of the car, ahead of the rear axle. The tank must be located at least 12" from the inner door panels. The stock tank must be completely removed. Tank must be securely fastened using large washers or plates. NO PLASTIC TANKS!!
- (b) Gas lines and fittings must be leak proof. No exceptions! Rubber fuel lines located inside the passenger compartment must run through a second larger hose (such as a garden hose) to prevent any accidental spillage on the driver in case of a leak. A hole must be made in the floorboard for fuel runoff.
- (c) Electric fuel pumps are optional. If an electric fuel pump is used, you must have an on/off switch that is positioned so that up is on and off is down. The switch must be easily visible and "off" must be clearly marked.
- (d) Gas tanks may not be bolted to the frame in any fashion. Gas tanks may NOT be used as a kicker to keep the frame from dropping or moving forward or backward. This is subject to Tech approval.
- (e) You cannot have any metal frame structure; attached to the cross brace, that protects the gas tank in a manner to be used to strengthen the car. This is subject to Tech approval.

Section 03: Batteries

- (a) Batteries must be re-located inside the car. Your battery box must be of metal construction, fully enclosed, and securely fastened to the floor. In NO way may it be connected or bolted to the frame. The lid must be securely fastened shut using 5/16" bolts or 2" straps. (i.e. seat belts). NO RATCHET STRAPS OR BUNGEE CORDS OF ANY TYPE.
- (b) Two (2) batteries maximum
- (c) Switches must be used for powering on and off the car. Switches must be within reach of the driver while harnessed in. There is no excuse for not being able to turn off your car in an emergency.

Section 04: Safety Bracing

(a) A front cross brace (dash bar) must be installed above the steering column from window post to window post (in the former position of the dashboard). It must be made of a minimum 2" pipe or square tubing with 1/8" wall thickness and be securely fastened into position. The dash bar in no way may touch or be bolted to the floor or the frame of the vehicle. If a two-piece pipe is used, it must be securely fastened so that it cannot collapse. (Welded or minimum 3/4" bolt).



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- (b) 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 from the floor. It must be made of a minimum 3" 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 (2) 3/4" bolts per side, extending through the door bars. If the cross brace is collapsible, it must be pinned with a 3/4" bolt (minimum) or welded so it can't rotate.

 Optional: If the floor boards are rusty, you may run a max. 2" pipe or square tubing over to the inner rocker panel sheet metal. It must be welded, no bolting of this bar! This bar MAY NOT be welded to the frame!!
- (c) All cars must have a minimum of one upright (vertical) post. Upright must be located directly behind the driver's seat. The upright must be made of a minimum 2" pipe or square tubing with a minimum 4" x 4" plate welded to the top. The upright will extend from the roof to the cross bar or to the floor and be located as close to the seat as possible. It must be attached with a minimum of two 3/8" bolts on each end.
 - Note: If using a two-piece upright, the female end should be above the helmet level, unless the upright is welded or solidly pinned with a 3/4" minimum bolt.
 - Optional: May add a second upright on the passenger side of the vehicle. Uprights may in no way be connected to the frame.
- (d) Roof post upright(s) can be welded or bolted to the crossbar.
- (e) Both front doors must be reinforced with a minimum 8" wide, 3/16" thick channel iron. The door bars must not be more than 6' in length and must begin ahead of the front door seam and be no more than 6" in front of the front door seam. The iron must be bolted with a minimum of three (3) bolts (3/4" min) that extend through the inner panels. Backing plates (washers) must be used and must be a minimum of 6" x 6" x 3/16" thick on both front and rear ends of the door bars. The front bolt must be located no further back than the front fender/front door seam and at least one other bolt must go through the plate connected to the rear cross bar. The ends of the side irons must be cut at a 45-degree angle.
- (f) Driver side bottom door lower seam can be welded to protect the driver.
- (g) No kickers will be allowed, period.

Section 05: Seat, Seat Belts and Safety

- (a) Approved four-way safety harnesses are mandatory. They must be mounted to stock mounts or have a 2" minimum flat washer where it is mounted through the sheet metal.
- (b) Seat can be OEM stock of any make/model car (Honda Prelude/CRX seats not recommended). Put a headrest on upright behind the seat if the seat was not equipped with a headrest (mandatory).



- (c) Long sleeve jackets, long pants (no shorts), long sleeved coveralls, and regular closed toe shoes must be worn in vehicles to protect against fire and injury during the event.
- (d) Helmets must be free from major cracks and be fastened to head properly.

Section 06: Building, Welding & Securing

THERE WILL BE NO OTHER WELDING OTHER THAN WHAT IS STATED BELOW. IF YOU HAVE A QUESTION ABOUT WELDING, PLEASE CALL THE HEAD TECH OFFICIAL. IF WELDING IS FOUND ON THE FRAME OR SHEET METAL THAT IS NOT SPECIFIED BELOW, YOU WILL BE ASKED TO CUT OR LEAVE!

- (a) Doors: You cannot weld the doors (except drivers' side lower seam to rocker). If bolting the doors shut, you may use up to four 1/2" bolts per door. If chaining the doors shut, you may use two chains, no larger than 3/8" per door.
- (b) Trunk lids, and hoods must be secured shut with bolts or chains as follows:
 - i. Hoods can be secured in a maximum of six places other than stock, in which only two may go to the frame. You may use a maximum of two bolts and the rest needs to be chain. Bolt size must be a minimum of 5/8" and a maximum of 1". Maximum plate size is 6" x 6" and be no thicker than 1/4" (no bumper jack bases). Bolts must not exceed 4" above the vehicle surface. HOODS MUST BE OPEN FOR TECH! NO EXCEPTIONS!
 - ii. Chains must be a minimum 3/8" thick link & maximum of 1/2" welded type. A bolt diameter no smaller than 3/8" & maximum of 1/2", with washers, must connect the chains.
 - iii. Trunks may be fastened in a maximum of six places using chains or bolts of which only two may go to the frame. If bolting, plate size cannot exceed 6" x 6"and be no thicker than ¼" (no bumper jack bases). All thread (1" max) may go through the frame. Cars must have an inspection hole in the trunk. 1971 to 1976 Chevy wagons can have two pins to frame and four spots on the tailgate. Frame pins from anywhere from bottom rear point of hump arch to rear end of frame.
- (c) OEM Bumper swaps are allowed (GM to GM, or Dodge to Dodge); however, you must use factory OEM hardware (brackets/shocks) that either came with the bumper or came with the car you are putting it on. No extra metal allowed. Bumper mounts, shocks and factory brackets must be mounted in the stock location outside of the frame. No other bumper mount locations allowed. Must be mounted in the stock location outside the frame. Any questions, call Tech.
 - Front and rear OEM bumpers may be welded solid. (i.e. bumper to bumper shock, shock to bracket and bracket to frame). No added material. No extending shocks. No truck bumpers. No welding bumper skins to the inner rebar bracket.
 - ii. Bumper shock itself may be collapsed and welded. No added material. Bumper shocks cannot be extended past factory length.



- iii. No welding or extra bolts from chrome outer bumper skin to inner rebar bracket.
- iv. You cannot weld anything else on the car that is not stated here, period!
- v. Maximum bumper height from ground to bottom of bumper is 22".
- (d) NEW RULE*** 5" x 5" square tube no thicker than ¼" can be used. Front bumper tube must stay open ended and straight. Tube cannot exceed 10" past side of frame. Can only be bolted to stock frame. You can weld brackets on to either the bumper tube <u>or</u> frame not both, to allow the bolting of bumper. Max bolts per frame mount is 4 using no bigger than 7/16" hardware. One tube only. Cannot weld 2 tubes to make 5" x 5" square.

Section 07: Window / Window Screen

- (a) A protective screen of 2" wire mesh or smaller must be installed in front of the driver if the windshield is removed. A car with a sunroof is allowed as long as the opening is securely covered with sheet metal and deemed safe by tech officials.
- (b) Minimum one/maximum two steel straps down the center of the windshield from top to bottom made from 3/16" to 3/8" thick x 2 1/2" wide flat stock. Window bar(s) must be bolted with a minimum of 5/16" and maximum of 1/2" bolts. Window bars CANNOT be welded in place. No sheet metal screws allowed for fastening window bars.
- (c) **Optional**: Two rear window bars will be allowed, 3/16" 3/8" thick x 2 ½ " wide x maximum 36" long flat stock must be bolted with a minimum of 5/16" and a maximum of ½" bolt. These bars cannot be welded in place. They cannot touch the trunk floor, bumper, or rear pin.
- (d) Side bar/chain must be installed for hard top cars (no center roof post from roof to door) to protect the driver from side shots.

Section 08: Radiator

- (a) No cooling system other than stock is permitted. Radiator fans can be removed. If removing the radiator, expansion tanks can be used. Must remain in front of the engine. Size max to 12" x 6" x 6" tank. Must be connected using a radiator hose. Radiator support or radiator attachment will be no stronger than stock. No homemade radiators. Tech decision is final.
- (b) Transmission coolers other than stock, if used, must be in an enclosed box inside the vehicle. Transmission coolers and all hoses must be leak proof. No screw type clamps on any transmission hose connections inside the car.
- (c) Transmission coolers and components may NOT be bolted to the frame in any fashion. Transmission coolers are NOT to be used as a kicker to keep the frame from dropping or moving forward or backward. Subject to Tech approval.

Section 09: Motor/Transmissions/Suspension



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- (a) Motor mounts can be held down by a strap or chain. Using bolts only. Straps can be a maximum thickness of 1/8" flat bar and 2" wide only and are limited to two straps, one per side.
- (b) OEM differentials only, OEM swaps allowed BUT NO custom differentials permitted! NO truck differentials. Five bolt axles only. Must use stock OEM arms only. You cannot add any material to the housing or axle. No custom axle flanges.
- (c) Upper/Lower control arms cannot be modified in any way. Stock OEM parts only. You may shorten the rear end control arms (trailing arms); cut and weld. You may add on to the inside of the arms to strengthen the welds only.
- (d) You may not weld the suspension solid. You may add spacers to front coil springs to reach the maximum bumper height. No more than 4 spots per spring.
- (e) Leaf conversions are NOT allowed. Suspension must remain stock.
- (f) Coil springs can be clamped to the diff bracket. Leaf springs can be clamped in four spots on each spring pack. No welding, period.
- (g) NO OTHER ENGINE PROTECTORS ALLOWED IN THIS CLASS (i.e., halos, rear distributor plates, transmission spacer, transmission brace supports, etc.).
- (h) Stock engine mounts for cars must be used. No aftermarket or solid mounts. Adapters to convert Chevy to Dodge/Ford are allowed. If conversion is being used, must use stock vehicle mounts to the car being run. Tech decision final.
- (i) NO MODIFICATION OR WELDING OF SUSPENSION ALLOWED OTHER THAN SPECIFIED.
- (j) No custom-made transmissions. OEM transmissions only.
- (k) Transmission chain may also be used to hold the transmission in place when rear mount breaks.
- (I) Shocks must remain stock for vehicles. No clamping/welding or stuffing of shocks.

Section 10: Distributor Plates

- (a) Distributor protectors allowed only on front distributor mount engines, must be attached to engine only, and must be no wider than inside valve cover to inside valve cover. It may not be bolted or connected to the body, hood, or frame.
- (b) Forward supports must be inside normally positioned headers and not extend past the water pump.

Section 11: Exhaust

- (a) Stacks must be a minimum of 18" from the exhaust port.
- (b) If running stock exhaust manifolds, you must have downpipes away from the motor.

Section 12: Carbs and Fuel

(a) You must have either an air cleaner or suitable flame arrestor.



- (b) Two large holes, at least 6" in diameter, must be put in the hood for fire extinguisher access. Stack holes are acceptable for fire access holes. Edges of holes can be folded or rolled.
- (c) No alternative starting methods (i.e. starting fluid, etc.)
- (d) Fuel must be Pump gas only. No Alcohol, Methanol, Propane, Natural Gas fuels.

Section 13: Brakes

(a) Cars must have working brakes.

Section 14: Tires/Wheels /Tie-Rods

- (a) Any tire may be used, doubled, and/or forklift tires, if they do not stick outside of the fenders at start of the derby. No split rims.
- (b) Wheel wells may be trimmed. No shackles or reverse spring shackles will be allowed.
- (c) Valve stem protection is permitted.
- (d) Tie rods may be reinforced by welding on a tube or use of angle iron to shaft. Must use stock tie rod ends. No heim joints.
- (e) Inner tubes allowed only inside tires.

Section 15: Sign Boards/ Flags

- (a) Car numbers will be painted on the signboard. Numbers will be at least 18" high and minimum of 2" thick. Signs need to be in contrasting colors (such as black numbers on a white background). If the signboard is unreadable, the car will not be permitted to race until it is corrected.
- (b) No Roof Sign, No Race!

Section 16: Repairing Damaged Cars

(a) When repairing damaged cars, you may use two (2) 4" x 6" x 1/8" plates per frame section. Be within reason. Pieces cannot be any closer than 3". They may not attach to each other in any fashion. Repair pieces must have an inspection hole drilled in the center of the plate. A frame section is one frame rail in front of or behind an OEM firewall: two plates RF frame, two plates RR frame, two plates LF frame, and two plates LR frame. That's a total of eight plates. You may not add any more than this. TWO PLATES MAX PER FRAME SECTION. YOU MAY NOT TAKE PLATES AWAY FROM ONE (1) FRAME SECTION AND ADD TO ANOTHER. Repair only after the first derby event!

Section 17: Misc. Can & Can't Do

(a) You may cut the firewall for distributor clearance. You must cover it with tin or rubber mat.



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- (b) You may not strengthen upper and lower arms on both front and rear suspension. No welding of front control arms.
- (c) You may clamp leaf springs; four clamps per leaf 2" x 1/4" MAX, two 3/8" bolts per clamp.
- (d) Body mount bushings may not be removed.
- (e) You may re-bolt hood skins. Four bolts maximum around each fire hole/stack hole. 3/8"max bolt size. 1" max washer size.
- (f) You may re-bolt wheel wells. You are allowed three (3) 3/8" bolts with 1" diameter washers per wheel well.
- (g) Fire extinguishers are highly recommended. If a fire extinguisher is installed in the vehicle, it must be securely mounted and within driver's reach.
- (h) You cannot strengthen or modify rear frame or unibody rail humps.
- (i) Upper control arms cannot be changed from aluminum to steel.
- (j) No seam welding, tilting, plating, stuffing, shaping, or foam filling of frame or unibody allowed.
- (k) You <u>may</u> cut, V-groove, dimple, or pre-bend the frame.
- (I) Rear quarters and sheet metal/taillight valance above the rear bumper must remain vertical.
- (m) You may cut out rear quarter panels for tire clearance where it folds in.
- (n) You may not fold, dimple, crease, or alter any of the factory body panels on rear or front of car.
- (o) On all wagons, back windows are known for rusting on the lower section. We will allow only four(4) 3/8" bolts and standard washers per side to keep rear quarter windows together. Again, no welding.
- (p) No wedged trunks.
- (g) Transmission puke tube must be installed and drop down to the ground area.
- (r) No antifreeze or A/C Freon. Must be removed.
- (s) ENGINE/TRANSMISSION CRADLES & PROTECTORS are **not** allowed in this class other than stated.
- (t) All cars **MUST** be brightly painted.

These rules are to simplify the build. Keep it easy and fun for all participants.

Head Tech Official: Sean Edwards: 604-308-4877, email: info@northernlightsmotorsports.com