

2022 SMW



Welcome to the 2022 SMW Youth Full-Size Program. Our intention of this class is to develop demolition derby's future, full-size drivers. With this Rule Set, we have specifically chosen to instill the basics of car building and detail. Our intention is to see the best built cars show up, not over-built cars. Our focus is developing driving, diligence and sportsmanship. Along with these traits we hope to re-ignite the ability to build competitive, well-built cars without a large budget. Make no mistake this is a competitive class. We welcome entry level drivers but also look forward to seeing our returning youths continuing their development. We emphasize the Rule Set for this class is based on stock 1980's style vehicles. Pre-run cars will not be discouraged, but our intent is to see everyone show up with the best built car that they can, so we encourage fresh builds. With many promoters premiering a youth full-size program we have included a couple areas of extra exercising. These implements are well within the means of anyone who will be competing. We are excited to watch these youngsters put on one of the best shows yet to come!

All King of Ohio cars will be allowed the following:

6 - 4" by 6" Patch It Plates (3 per frame rail and only to be used on the frame rails)

Age Qualifications: Ages 10-17 on the date of the show. (Friday, June 17th)

Passengers are welcome and recommended if you are under the age of 13.

Inspection will be completed by the SMW crew.

This class will run the format!

Youth Full Size

Stock Rules

1980's and newer except 2003 and newer Ford frames, suspensions & components. No open roofs, no trucks, no four-wheel drive vehicles, no vans, limos or compacts, no hearses, ambulances, etc. that have been frame altered. All cars must remain stock unless otherwise noted. If it is not in the rules, it does not mean you can do it. Frames and components must be standard automotive production standards.

Helmets, (fire suit top is highly recommended), long sleeves, and eye protection must be worn at all times. Seat belts must be fastened. If your helmet comes off, you are "Out"! Fire extinguisher is mandatory!

Drivers will be given one warning for sandbagging before being disqualified. **You must make an aggressive hit every thirty seconds.** You will have one minute to restart your car. You are permitted to continue if your car catches fire once; however, you will be disqualified after the second fire. Do not use your driver's door as a shield. Driver's door hits are NOT permitted. Keep in mind that there are two people in the car. Teamwork is not permitted. You will be given one warning before being disqualified.

To qualify as a minor, you must be between the ages of _____ when the scheduled season begins in April. If a minor becomes _____ during the scheduled season they will not be discounted, however, if a minor turns _____ even one day prior to the April start date they will not be eligible for this Class.

Safety

Seatbelts must be bolted in securely for both occupants. *If these don't pass the 1st time through, your car is sent out of inspection. We will not continue inspection until it is corrected.

Seats must be securely fastened in vehicle

It is highly recommended that occupant areas be clear of sharp, protruding objects.

Nothing is permitted to be mounted in occupant areas, such as transmission coolers, batteries, power steering, etc.

Anytime deemed to be unsafe will need to be addressed prior to passing inspection.

No hot rodding or hot dogging will be permitted in the Pit Area or surrounding areas. This is only permitted on the track.

Sportsmanship and enthusiasm are welcomed and encouraged.

Inspection

1. Officials have the right to drill, scope, etc. as needed.
2. Officials have the right to re-inspect any and all cars before and during the event.
3. Any car found to be cheating will be disqualified.

4. It is mandatory that all drivers and youth attend the Driver's Meeting and secondary Youth Meeting with parent or rider. If you do not attend you will not run.
5. Only drivers and one crew member or passenger are permitted in the inspection area during inspection.
6. Cars that fail inspection get only one re-inspection and must wait until all cars go through a first time to get your car re-inspected (follow the rules).
7. Cars that fail inspection due to Rules or any safety issue forfeit their entry fees – No Refunds.
8. Bring torches or appropriate repair pieces to correct any violations found during inspection. If you believe anything to be questionable fix it prior to inspection!
9. You may not only be asked to cut but to totally remove anything found to be outside of the Rules. No half-hearted attempts to cut something will be accepted.
10. No additional welding permitted other than described in the following Rules.
11. Blatant attempts to cheat will result in automatic disqualification and you will not be given a chance to make repairs.
12. Cars inspected and flagged are legal to run and legal to win.

Stripping

All outside hardware such as glass, plastic, fiberglass and chrome molding, door handles, mirrors, etc. must be removed prior to arrival. No broken windows in doors. All flammable material must be removed. All airbags must be removed. Cars must be swept clean of all dirt and debris. All station wagon rear decking must be removed. All OEM gas tanks must be removed.

Suspension

Stock suspension only. 1980's upper A-arms may be swapped out in place of the 1980's wishbone style upper arms. 98-02 frames forfeit crossbar on upper arm swap. No aftermarket tie rods, spindles, ball joints, replacement over-the-counter OEM style only, no homemade fabrication. Moog Performance is not permitted. Twist in coil spring risers may be used; two per side maximum. No spacers in coil spring buckets will be permitted. No stuffing of shocks. Rear springs may be swapped out with any OEM coil spring for ride height. Rear springs may be wired or 1" hose clamp or 1" welds in three places on the bottom of rear spring to be secured. No homemade shocks in the front or rear. Tie rods may NOT be reinforced, factory tie rods only (inner and outer). No all-thread or homemade shocks. Factory OEM automotive shocks only mounted in the factory location. No truck shocks will be permitted. Rear springs may be wired in top and bottom. Wire cannot be continuous, not used in the manner of limiting suspension travel.

Front suspension may solidly be locked in place using only one of the following options NOT both flat stock or angle iron from lower A-arm vertically to frame using 3" weld per side on frame with only one piece per arm maximum thickness 1/4" or a 2" x 4" x 1/4" thick plate, welded on the front and rear side of the upper control arm. This plate may not extend more than 2" from the A-arm. Factory leaf spring cars must have factory leaf springs, clamps and hardware. The clamps must remain factory. No homemade or bolt-on spring clamps. OEM factory stairstep of 3" must be maintained for the vehicle. No altering, restacking or adding of leaf springs will be permitted. No lengthening of the main or altering or relocating of the shackle. Rear suspension **must be a working suspension!**

Sway bars must not be altered from OEM shape or size. Sway bars may not be welded to the frame in any way. Sway bars are to be mounted to the frame using OEM brackets. Hardware may be changed at the lower arm 3/8" bolt size max in factory location. Sway bars must be mounted using the factory orientation. No upside-down sway bars. Sway bars must be "Make for Make".

Automotive five-bolt rear ends only. Example, 10-bolt GM, 9" Ford, 8.8 Ford, 8 3/4 Chrysler, etc. No custom rear-end housings. No reinforcing the tubes. No changing size of bolt holes or use of oversized bolts or washers. Spider gears may be welded. Bolt in axle conversions permitted.

Watts Link Conversions are permitted. You may use factory brackets and weld to car or Watts Conversion plates no bigger than 5" x 5" x 1/2"; 4 bolts max per side. Minimal bracket fab for lowers. See Addendum B

*Only stock OEM car trailing arms may be used. They may be adjusted to obtain pinion angle 1" overlap – no reinforcing. Direct bolt-on pinion brakes permitted. No extra bracing to mount pinion brake. Factory brackets can be swapped on rear differential. Example, 1980's Ford brackets to 9", etc. Top ears must be minimal fab with factory style OEM bushings only. No spherical joints, etc.

Steering Columns

Steering columns may be altered between box shaft and wheel. No hydraulic conversions.

Frame

Factory frames only. No frame altering other than described in the Rules. Front frames may be shortened to the front of the core support mount. Core support mount may not be modified. Repair stubs must be butt-welded in the middle of the car. No plates permitted. No welded seams are permitted (even where the factory may have missed). No shaping of front frame horn or dimpling of rear frame hump. No hump plates. No tilting or cold bending. Rear frame section may be cut or dimpled to bend up. No rear frame chain of any kind from side to side will be permitted. There is to be no welding on the frame except within the areas specified in the Rules. Standard automotive production frames and specs.

For rust repair, plates may not be longer than 3" x 4" x 1/8" thick. No angle iron may be used in repair. No framework is to be done without approval first. Fix-it plates may be welded solid around the perimeter of the plate but not the center. If more than one side by side plate is needed, a minimum of a 1" gap must be between the fix-it plates. The weld of these two plates may not be weaved together, all plates must remain in place, no cutting to make multiple plates. Used cars are only permitted two fix-it plates; maximum of 3" x 4" x 1/8". We encourage building fresh cars.

Cross member must remain stock. Any OEM factory automotive transmission cross-member is allowed except 2003 and newer Ford. No added metal to cross-member or altering. A 2" x 2" x 1/4" x 6" angle may be welded to the frame for cross member mounting. Cross member must be bolted to the frame plate angle mount. No larger than 3/8" bolts may be used, with two bolts on each side. Cross-member must remain within 8" of factory location – no added material. 2" x 2" x 1/4" tubing may be used but must have (4) 3/8" holes drilled in it for scoping. Must bolt in the same manner as described in the Rules. See Diagram.

Bumpers must remain in the stock location. Front bumpers on the front and rear bumpers on the rear; no fabricated bumpers are permitted. No loaded bumpers are permitted. Ends of the bumpers must be open. You may NOT reinforce or weld. Chrome may not be welded to the backing of bumper. Hard nosing is permitted. If hard nosing, nothing can be inside of the frame and no bumper shocks of any kind are permitted. A maximum plate of 6" x 6" x 1/4" may be welded to the end of the frame for bumper mounting. 10-gauge bumpers are permitted. If you are unsure of what you have ask SMW.

Bumper shocks may be collapsed and welded. 3/8" chain may be wrapped and welded to outer bumper skin with a maximum of two links welded to the frame top and bottom within first 6" of frame-measured from end of frame. Bumper chain links may not be welded over the seam. The rear bumper chain may NOT pass through the body in any manner. It is attached bumper to frame only. Bumper chain links may not be welded from the skin to the frame. **Bumpers can and should be #9 wired to the body front and rear; two locations per bumper.** Wire may pass through trunk lid and taillight panel and hood/core support; 3 strands per spot.

SMW Mighty Mini Bumpers, Light Flat Bumpers and Light SS Bumpers will be permitted – 10 gauge maximum. www.smithmetalworks.info Comparable bumpers will be permitted upon SMW approval.

Maximum bumper heights must be 22" in the front and a minimum of 15" in the rear; measured to the bottom side of the bumper as mounted on the car.

Body

Body sheet metal is to remain in stock position. Shaping, forming or creasing is allowed in the following Attachment B: trunk lid/tailgate may be welded, wired or banded in six plates; 3" x 3" x 1/8" plate maximum. The trunk may not overlap the quarter panels. Trunk lid may be tucked and attached to the floor in two places. No more than 3" to floor and trunk lid. One 15" inspection hole is required. Hole may be bolted in six places with a maximum of 5/16" sized bolts, 1" in length with 1" washers. **Rear speaker decks cannot be removed. Absolutely no creasing on the cars in front of the rear doors seam.**

No metal may be added to the radiator support. The radiator may be strapped in two places, vertically. 1/2" all-thread maximum, 1" banding, or three strands of #9 wire may be used. Condenser may be mounted in four places, factory style only with a maximum of four 3/8" bolts. Inspectors must be able to see between radiators and condensers. No spray foam is permitted.

All hoods must have a minimum of two 12" x 12" holes. Holes may be bolted in six places with a maximum of 3/8" bolts, 1" in length with 1" washers. You may use six 1/2" bolts for hood hold-downs. 3" x 3" x 1/4" maximum dimensions for the hood hold-downs. Hood bolts may pass through core support only; they may not pass through or around the frame. No 1" all-thread in the core support is permitted. You may add 3" x 3" x 3" x 1/8" angle to the inner fender for hood bolt mounts. No gussets from core support to fenders as hood bolt hold-downs are permitted. Angles cannot connect fenders to the firewall.

It is highly recommended that the driver's and passenger's doors be welded solid and plated. Door skins are also permitted along with inside door plates. Sidebar to sheet metal only; not within body mount areas. No C-channel reinforcements are permitted on the outer doors. Driver's nor passenger's door reinforcement may not extend beyond the drivers door seams more than 3". Doors may be welded, banded, bolted or chained shut. If welded, it can only have a maximum of six 3" x 3" x 1/8" plates using vertical welds. Chain, wire or banding must not pass through or around the frame in any location. Maximum of three strands of wire, maximum of 1" banding. Chaining, wiring and banding must be done sheet metal to sheet metal in six places only. No washers welded in for wiring will be permitted.

Front and rear window bars may be made of 2" x 2" square tubing or a maximum of 3" x 3/8" flat bar. Only two are permitted in the front window area and may attach at the fire wall. Bars may go 3" maximum onto the roof and no more than 3" onto the fire wall area. Rear window bar may not extend beyond 3" of the rear window opening and extend more than 3" from the seeker deck/trunk seam. If welded over trunk seam it counts as one tie down.

Body Mounts

All factory body mount bolts may be changed with 1/2" bolts only. You may use hockey pucks or a stack of washers, etc. Spacers will be looked at during inspection. All spacers must be free floating. Body mount rubbers must maintain a 1" space between body and frame. 3" x 3" x 1/4" washer top and bottom maximum. It is not permitted to move the body mount hole and washers may not be welded in the hole. No additional body mounts are permitted. A maximum of 3" will be permitted on risers made of 2" x 2" tubing. Risers may not be fastened to frame, core support, or body of car in any way. Core support mounts may NOT be used as hood bolts. **No 1" all-thread permitted in the core support. If you show up to inspection with this you will be trailered.** The purpose shall be to give adequate fan/radiator fitting only.

Cage

You may run one bar behind the seat (from post to post) bar cannot go more than halfway past the back door, one bar for the dash, and one bar for each door connecting the seat and dash bars. 4" x 4" tubing or 4" pipe maximum size to be used. ¼" x 6" x 6" mounted brackets may be used for dash and seat bar installation door bars may not run into front fender area past cowl. No down bars connecting the cage to the floor or frame are permitted in any manner. Door bars may not extend within 2" of rear-most door seam on two door cars must be 2" from wheel tubs. This is to free up space for battery, tanks, coolers, etc. No seat belts may be bolted to the floor connecting any part of roof or trunk in any location other than the OEM mounting location for safety only. Adequate padding is recommended.

A rollover halo bar may be installed for protection. The halo bar must run vertically from the rear seat bar only. The halo bar may be attached to the roof in two places using ½" bolts. 4" x 4" maximum.

Gas Tank

No shelves other than gas tank are permitted. The floorboards and sheet metal must be visible to inspectors. Gas tank must be securely mounted to the floor or mounted on the rear seat bar. Maximum size for gas tank protector is 24" wide to the outside of the protector and may be tight to the rear sheet metal. Cannot be attached to the sheet metal or package tray. Gas tanks must be constructed of steel. This includes metal fuel cells, Jerry cans and boat tanks. No plastic tanks or lacquer cans will be permitted (even if you put it in a milk crate). Fuel line must be securely fastened and clamped so that it will not pull free from the tank. Holes must be drilled into the floor underneath the tank if it is mounted on the bar, or around the perimeter of the tank if mounted on the floor. If you are using an electric fuel pump, you must use high pressure fuel line. A shutoff switch must be located on the dash bar. Shutoff switch must be visibly marked. Fuel tank vents should be positioned away from occupants. Rollover valves are recommended.

Drive Train

Engine swaps are permitted. No alcohol fuels. Slider driveshafts are permitted. No distributor protectors, cradles, or pulley protectors are permitted. Transmission coolers are permitted inside the car. No type of rubber fuel line is permitted as transmission lines. Heavy duty transmission lines or hydraulic JIC are recommended. Enhanced motor mounts are permitted (SMW weld kit or equivalent) to meet specifications. See Diagram. Full lower cradles are not permitted, however, you may cut the center out so they do not fully connect side to side. There must be no material connecting the sides and oil pan and balance must be fully exposed.

Two-barrel carburetor only. Headers are permitted. Aftermarket shifter, gas pedal and brake pedals are permitted. OEM style radiators must be used and place in the OEM location. Looping of hoses is not permitted. Electric fans are permitted. Transmissions must be stock housings. No steel bells and no steel tails. No transmission braces will be permitted. Stock transmission mounts only. Stock-style motor mounts. Aftermarket ok but must have rubber bushing and horizontal bolt. No aluminum aftermarket bells. No steel bells. Motor chains must be used with a 3/8" maximum size. Chain must be bolted to the motor and dropped vertically with no more than two links welded to the K frame. Links may not be welded from the frame to the motor. No skid plates. Transmission pan and oil pan may be plated for protection. Plate may not exceed 1" beyond the pan. They cannot connect. Basic adapter plates for BOP transmissions are permitted. Cars must have working brakes. All fan blades MUST be covered, and all carburetor cars must run an air cleaner. Transmissions may be wired, banded or chained around cross member. This is a simple allowance for mount failure – don't get tricky.

Tires and Wheels

Any air-filled tire up to 16" are permitted. They cannot be solid, foam or water filled nor studded.

OEM stamped steel wheels only. No solid wheels, bead locks. A simple 8" weld in center weld is permitted. Simple valve stem guards are permitted. Lip reinforcements are permitted.

Battery

One 12-volt battery will be permitted. Battery must be secured in a manner that is safe for the driver, passenger and fellow competitors. No ratchet straps or bungee cords are permitted. A battery box is recommended. Battery must be covered with non-flammable material. Battery cables must be insulated from gas tank and components.

Rust Repair

Sheet metal only to patch body tin. Stitch welding only permitted. Must prove rust. Do not go overboard. 2" overlap onto good sheet metal only. Please contact us PRIOR to any rust repairs.

All Rules are at the interpretation of officials. If you have questions, ASK BEFORE the derby – do not wait until the day of the event! If you are willing to weld it on, be willing to cut it off. If you are found to be overbuilt pursuant to these rules you will be given the option to cut or remove illegal parts or load your car and go home. There will be no adjustment option on over builds.

Questions can be answered by calling _____ between 6 – 7 pm daily (no text or FaceBook messages please). _____ will accommodate your calls as best as he can. If parents' work schedule does not allow for these days and times _____ will accommodate you as needed. _____ wants you in the garage/shop not on the phone!

Thank you and Good Luck!