2024 TNT Light Weld Compact Demolition Derby Rules

General Preparation

• Any factory built front-wheel-drive (FWD) or rear-wheel-drive (RWD) compact car or minivan allowed. Vehicle must be OEM 112" wheel base maximum.

• Engine size limited to 6 cylinder maximum, no V8 cars of any kind allowed.

• No all-wheel drive (AWD) vehicles allowed. AWD vehicles must have driveshaft and rear axles removed in order to be legal.

- No full-framed cars, trucks, full size vans or SUV's allowed.
- No T-tops or convertibles allowed.

• All interior plastic, upholstery, trim panels, etc must be removed. Nothing to remain in the bottom of the doors or trunk. This includes all carpet material. No broken glass inside of doors or other loose material anywhere inside the vehicle.

• Front dash can remain in the vehicle or be removed. Any dash components or molding that can become loose must be removed. (**Example:** Radio, heater control, dash bezel, etc.)

• Driver door panel can be left in place or suitably replaced. Driver's door must have padding of some type.

• All outer hardware must be removed. (Example: All glass, door handles, mirrors, chrome, molding, fiberglass, etc.) Front windshield must be removed.

- All flammable material must be removed.
- <u>ALL</u> airbags must be completely removed. <u>Unplugging/cutting airbag wires only not allowed!</u>
- The ECM/PCM can be relocated and secured. Securing engine computer may not strengthen vehicle in any fashion. Spray foam is okay to secure.

• Driver's seat must be securely bolted to the floor. Must have a working and approved driver's seat belt or harness.

• All seats except the driver seat and the passenger seat must be removed from the vehicle. This includes all fold-down seats (**Example:** "Stow-N-Go" minivans). Rear seats must be completely removed from the vehicle. Area where seats were removed must also be empty and clear of material.

Body Preparation

• All cars must run a hood. Hood sheet metal must stay over top of fans.

• Hoods will be opened for inspection. Do not secure hood until after you pass inspection! Hood securing will be done immediatly after inspection when you line up in the staging area.

• Hoods may be secured in (8) locations maximum. A combination may be used totaling (8) securing locations total using these options:

Option 1: Hoods may use (2) 3/4" bolts threaded rods to secure front of hood down. These locations may also replace front core support body mounts and extend up through the hood to secure. **(See also Frame & Bumpers Rules for more information).** (1) 4" x 1/4" maximum washer may be used on top of hood only per side. Do not get excessive with welding or bolting! If using this method you may only use (6) additional securing locations on the hood. Bolts/threaded rod count as (2) securing locations. If not going through frame body mount location, bolts/threaded rods may extend vertically down and be welded to side of unibody rail, 4" welds only. Bolts/threaded rods may not be angled or bent and must be within 6" of original body mount location. **Option 2:** Double strand #9 wire, seat belt, or 3/8" maximum chain may be used. Securing locations may not wrap around or tie into frame or unibody rails in any way. Sheet metal to sheet metal only.

Option 3: 6" long, $2" \times 2" \times 1/4"$ angle iron may be used welded to sheet metal only. Angle iron to be used in matching pairs to secure hood. Angle iron may have (2) 1/2" maximum bolts per matching pair.

• Hood and trunk lid must have a minimum 12"x 12" access hole in them for inspection and safety.

• Hoods may use (12) 3/8" maximum store-bought bolts, nuts, and washers to secure inner and outer hood sheet metal together only. These bolts may not be used to secure hood closed or attach to any other parts of the vehicle.

• Sunroofs must be covered, <u>no exceptions</u>.

• Trunk lids can be tucked 50% straight down into trunk area. Non-tucked section must remain on top of drip ledge of quarter panels and speaker deck and no further than 6" away from factory location. Trunk lids may be completely removed.

• Trunk lids may be secured shut using double strand #9 wire, seat belt, or 3/8" maximum chain, or welding in (8) locations maximum (2) securing locations may attach to rear bumper. If welding a 6" welded, 6" non-welded rule using 4" X 1/4" plate maximum must be used. (6" on, 6" off).

• Shaping/pre-bending/creasing trunk lid is allowed. Shaping/pre-bending/creasing of rear quarters is allowed but must remain at stock height. Absolutely no wedging trunk.

• No tucking or beating down speaker deck on fresh cars. Trunk floor may be pushed up.

• Drivers door can be welded solid. All other doors welded must use a 6" welded, 6" nonwelded rule using 4" X 1/4" plate maximum. (6" on, 6" off). Driver's door <u>MUST</u> be outlined with white paint. Driver's door may be skinned with 3/16" plate with 3" overlap on seams maximum.

• If doors are not welded they may be secured shut in (6) locations each with #9 wire, seat belt, or 3/8" chain.

• Body mounts and bolts must be factory, no aftermarket bolts. (Exception of (2) front core support/hood bolts/threaded rods).

• No body seam welding. No other body welding is allowed at all unless it is specifically mentioned within these rules.

Steering/Suspension

• Aftermarket steering columns are allowed. No aftermarket hydraulic steering systems. 3/4" maximum steering column shafts allowed.

• Tie rods may be reinforced with 1" x 1" angle iron, sleeved, or replaced with aftermarket tierods. All other suspension and steering must be stock to make/model you are running. No alteration to suspension or steering other than stated in rules.

• Struts may be aftermarket, locked, or homemade but must conform to OEM type dimensions.

A-Arms vehicles may achieve height by locking suspension with (2) 2" x 2" x 1/4" plates per side of vehicle. Locking suspension or changing these parts may not reinforce any other part of the vehicle. 1/2" weld bead maximum.

• No changing out the rear end components to heavier/aftermarket parts other than stated. Must be OEM parts only! FWD vehicles may replace the trailing arm running from rearend forward to the body only. (1) 2" x 2" x 1/4" square tube may be used, this trailing arm must travel as OEM and must not reinforce any other part of the vehicle. This cannot be used to lock rear suspension.

• Coil springs may use wired or clamped into place. Leaf springs may use (2) OEM style clamps or single wrap of #9 wire to hold leaf pack together, (1) in front of axle, (1) behind axle.

• Ride height measured from bottom of frame in front and back is maximum of 20", minimum of 14". Twist in coil spring spacers are allowed.

• Aftermarket steering, pedals and shifters are allowed. You are allowed shifter brackets and protectors.

• Leaf spring vehicles must run springs for that make and model of vehicle with factory stagger. Shackles and clamps must be factory and may not be altered or welded.

• RWD vehicles may use a single axle housing brace. Axle must mount in with factory trailing arms, they may not be altered or welded.

Brakes & Tires

- Car must have working brakes at all times and have the ability to stop.
- Any tire/rim combo is allowed.
- (4) wheels max per vehicle, no dual tires.
- No split rims or studded tires
- Wheel weights must be removed.
- Tubes and outer tire flaps/skins are allowed.
- Valve stem protectors are allowed but must be deemed safe.

Frame/Unibody/Bumpers

• You are allowed (4) 4" x 4" x 1/4" maximum plates per side of vehicle anywhere on unibody/K-member. There must be 1" gap between each, including 1/2" maximum welds. Once these plates are welded on, you will not be allowed to remove/move them to run again in the future.

• Absolutely no filling frame or body holes with spray foam or other material. If frame holes are capped/filled, expect to have holes drilled for inspection. No bolting through K-member or unibody rails other than what is stated.

- "Crush boxes" can be removed.
- All bumper rules apply for front and rear bumpers. There are (3) options for bumpers:

Option 1: Any year bumper is allowed but must be an automotive car bumper. Bumper ends may be cut off and capped with 1/4" steel <u>OR</u> ends folded around and welded. Bumpers may also be seam welded, 1/2" weld bead maximum. Bumpers may be loaded but must be within factory envelope of the bumper. Capping over lamp holes is allowed with 1/4" maximum material with 1" overlap. **Option 2:** A 4" x 8" x 1/4" maximum tube may be used as a bumper. Ends must be cut off flush, not angled or sharp. Tube bumpers may be no wider than 6" past outside edge of each frame rail at mounting position.

Option 3: An aftermarket or replica bumper may be used but may be not be pointed more than a factory New Yoker "Pointy" bumper. Officials decision on this rule! Bumpers may be welded on using a 5" x 5" x 1/4" maximum mounting plate flat onto the end of the frame. Rear bumpers must be a stock automotive bumper or 4" x 6" x 3/16" maximum tubing.

• On the top of each frame rail, (1) 2" x 8" x 1/4" maximum piece of flat steel may be used and must contact bumper.

• On the outside side of each frame rail, (1) 3" x 8" x 1/4" maximum piece of flat steel. It cannot completely cover factory holes and may connect to the K Frame, but must contact bumper.

• Bumper shocks are allowed. Bumper shocks cannot exceed 10" in length. May use stock-type shocks or 2" x 2" x 1/4" maximum tubing mounted inside the frame or attached to the outside of each unibody frame rail. 1/2" weld bead maximum.

• Notching rear frames is allowed. No welding or plating the notched areas.

• (1) 2" x 2" maximum square tube block may we welded to the side of the unibody rail behind the strut tube, 2" long maximum with 1/2" weld bead maximum. 4" x 4" frame plates may not touch the strut blocks. This may not be used in any way to reinforce the frame of the vehicle.

Drivetrain

• Any motor/transmission combo allowed. Engine swaps are allowed. (**Example:** Chevy engine/transmission in a Ford vehicle). Swapping from fuel injection to a carburetor is allowed.

• You may use a single 3/8" chain or double wrap #9 wire to hold down engine/engine mounts in (1) location per side. If using chain you may weld (1) link to frame per side.

• Aftermarket/solid engine and transmission mounts are allowed. May not be excessive in size or mounting. 2" x 2" x 1/4" tube maximum for FWD vehicles <u>OR</u> a 3" x 3" wide mounting pad for RWD vehicles. Officials discretion on this rule!

• Engine cradles are allowed only. No additional plates, brackets, or protectors. Cradle assembly must bolt to engine/transmission only, no additional mounting positions allowed other than factory positions and what is specified within these rules! Call if you have questions!

- Welded differentials are allowed.
- Exhaust may exit down under vehicle past driver's area or straight up through the hood.
- Aftermarket shifters and brake/gas pedals are allowed.
- Radiator must mount in factory location or be removed.

• A 1/8" maximum radiator guard. It may be held in with (4) 3/8" maximum bolts or (4) 1" welds. Radiator guard may not extend further than 2" past any part of the radiator in any direction. Guard may not be used to reinforce any other part of the vehicle, if this area is excessive, it will be cut.

- No homemade radiators or reservoir tanks allowed.
- Radiators can be spray foamed in place.
- Electrical fans are allowed.
- Radiator protectors are allowed. May be no larger in any measurement than radiator by 1".

1/8" maximum thickness. May be attached using (4) 1" welds or (4) 3/8" maximum bolts.

Drivers Compartment

• A chain, strap, or single 4" x 4" x 1/4" maximum material will be allowed behind the driver seat from B-pillar to B-pillar UNLESS you have a 4-point cage.

• Cages must not go more than 15" past the driver door post.

• Cages are allowed: 4" x 4" x 1/4" (or equivalent material **Example:** 2" x 6") maximum material allowed. Driver's side door bar only can be up to 12" tall material. A single down leg is allowed in the center of both front doors but can only be attached to sheet metal and not to the K-frame/engine cradle. Cage gusset bars only within the interior of cage. Cage cannot go further than 15" in front of the front door seams and no further than 15" past the B-pillar seam.

• Cage must be 5" off of the floor and cannot be higher than 5" below the window sill of the doors.

• A rollover bar is required. This includes 2 vertical bars running up and attached over roof of vehicle with another horizontal bar. All rollover bars must be welded to bar behind seat and/or rear of door bars. You may also attach the front of the rollover bar in (2) positions to the roof using 3/4" maximum bolts and 4" washers. Rollover bars may not extend down to floor or frame.

• Driver's door may be foamed for protection.

• Driver's door may have 1/4" maximum door skin welded to exterior of door. Door skin material may not extend more than 3" past front and rear door seams.

• Fuel cells must be mounted inside the car in these ways:

Option 1: A tank tray and protector may be built to attach fuel tank to. Fuel tank tray/protector may be no wider than 34". Tank tray/protector can be attached to cage. **Option 2:** Fuel tank may be bolted to floor in (4) locations minimum.

• Stock fuel tanks must be removed. Fuel cells must be located inside car. No stock tanks inside car.

• Pump gas only. No exotic fuels allowed.

• Aftermarket and electric fuel pumps are allowed. An "ON/OFF" switch must be mounted to the left side of the steering column on the dash/dash bar with the "OFF" in the down position.

• Windshield protection must be used. Windshield protection cannot be attached to the cage or drivetrain in any way. Windshield protection may be used in (2) ways:

Option 1: (2) positions from roof to cowl of chain, cable, seat belt, or #9 wire. **Option 2:** (1) $2" \times 1/4"$ maximum flat-bar must be used. Bar must be mounted using a $3" \times 3" \times 1/4"$ maximum mounting plate on the center of the roof to center of the cowl and must be within 4" from windshield lip edge on roof and cowl, bar may be welded or bolted. Do not get excessive!

• A 2" x 2" maximum tube rear window bar is allowed. This bar must be attached no more than 4" on the roof and must be attached within 3" of the rear package tray/speaker deck. Rear window bar may not be attached to cage or fuel tank tray/protector in any way. Sheet metal to sheet metal only. (1) 6" x 6" x 1/4" plate maximum may used as mounting pad at the bottom attaching point. Tank tray/protector may only contact rear seat sheetmetal, it is not allowed to be bolted, welded, pinned, or attached in any way. Do NOT extend fuel tank tra/protector into package tray or trunk area.

• (2) automobile-type battery(s) maximum allowed. Battery must be relocated to front

passenger seat area or front floorboard area or mounted in a steel tray on cage away from doors. Battery(s) must be securely fastened and covered.

• Transmission coolers are allowed inside the vehicle. Transmission coolers must used approved high pressure lines and proper connections. Officials must deem safe.

• . The door protection overlap rule is for the outside of the door. If your door protection is inside the car then you must go by the cage rule. Driver door protection must be positioned in the middle of the door if it is located on the outside of the door (hip/abdomen height). If using separate pieces located inside the door, they must be 2 pieces built in an "X" fashion and attached securely using bolts, #9 wire, weld, or combination of all of these.

• #9 wire will be limited inside the car. (4) maximum, double-wrap #9 wire inside vehicle connecting the floor, cage, rollover bar, and/or roof allowed.

If you have any questions with the rules, CALL FIRST. Do NOT assume anything, do NOT play any grey areas. This should be a one-time-through inspection type build and if you are caught with several major issues, you will be loaded. PLEASE READ AND ADHERE TO THE GENERAL DEMOLITION DERBY RULES. All classes must follow those general rules as well. The official's decision is final. Call Jesse Cushaway at 231-676-2063 for building questions.