

# 2024 TNT Demolition Derby Motor Swap Rules

**Any year rear-wheel-drive (RWD) car is allowed, except for leaf-spring wagons, suicide Lincolns, Imperials, Checker Cabs, and hearses.**

## **For Warzone Team Derby:**

Teams are permitted (3) cars, no spare cars. No more than (2) of the (3) total vehicles per team may be Old Iron or 03+ Fords, any other combination is acceptable. (**Example:** (2) Old Iron and (1) 79-02 Ford, **OR** (1) Old Iron, (1) 03+ Ford, and (1) 77+ GM, etc).

**DO NOT READ ANYTHING INTO THESE RULES, JUST READ THE RULES!! If it doesn't say you can, YOU CAN'T! For any questions on Motor Swap Rules please call or text Logan Sorensen @ 231-343-8868.**

## **BODY PREPARATION:**

- No "sedagons". You may only crease the front fenders & rear quarter panels, but not wedge them. Quarter panels must remain upright and may not be pulled in past the outmost section of frame, trunks may not be dished deeper than the factory wheel tub. ZERO frame shaping, forming or folding. Rear quarter/trunk wedging to be considered anything shorter than 12" measured from the top of the frame at the rear most body mount location.
- Wagons ONLY: If you remove your tailgate may have (6) places of #9 wire 2 strands max, must be behind axle sheet metal to sheet metal only roof to floor. Pillars must remain intact and on the car at all times
- Anything can be removed (unless stated otherwise), NOTHING can be added. – All cars competing must always have a hood on to run. If you are running a mechanical fan, sheet metal MUST be over fan.
- Fasten trunks, hoods, and tailgates in (6) places, (2) strands of #9 wire (Sheet metal to sheet metal only), or (6) locations using 1/2" bolts with store bought 1/2" washers through the drip rail in the trunk. You may also use angle iron no longer than 2" long and a single 1/2" bolt to hold hoods shut, or you may weld the trunk with (6) 4x4x1/4" plates total, anywhere on the trunk. Speaker deck may not be manipulated in any way, if speaker deck is manipulated in anyway on a fresh car, you will be asked to remove it completely. The trunk lid may not be dished any deeper than the factory wheel tub, measured front and back of the trunk lid.
- Door seams may have no more than 12" of weld, vertical seam only. Driver's door may be welded solid, driver's door hits happen and are not always caught. Door strap material can be no wider than 3" and no more than 1/4" thick.
- You may run a 1/4" max driver's door skin but it may not be welded to the rockers or belly rail. (Door skins are highly recommended). No other doors may be plated/skinned. The driver's door MUST be outlined in white!

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- #9 wire or chain required in front windshield OR you may use (2) pieces of 3" x 1/4" flat bar material. 3" can be attached to the dash sheet metal, 3" attached on to the roof. Any part of this must remain 5" away from any part of the drivetrain at any time. If using (2) metal straps, you may use (2) additional straps attaching the vertical straps, these may attach horizontally to vertical straps, and must retain 5" clearance from drivetrain.

### **BODY MOUNTS:**

- You may have up to a 6" core support spacer 3"x3"x1/4" material max, and may not be welded to the frame,
- There are (2) options to body mounts. Bodies and frames must match the same era. (For example, 80's frames to 80's bodies, sedan body to sedan frame, 98-02 body to 98-02 frames, etc.

**Option 1.)** If all the body mounts remain stock, you may change/add (6) total body mounts using 3/4" threaded rod max, these may pass through (2) layers of the body max, either to pre-existing holes or mounted to the side of the frame with a 3" vertical 1/2" weld only. These are to remain vertical and not be tied into any part of the cage. If using 1/2" or smaller threaded rod at core support mounts with (2) nuts and (2) washers each, these do not count against your changed/added body mounts.

**Option 2.)** OR you may change out all body mounts with 1/2" bolts, at the "box" you must have a 1" spacer and all others must have at least a 1/2" spacer. 3"x3" max. The body mounts may only go through one layer of the body with the exception of (2) in the trunk which are allowed to go vertically up through the trunk lid. And (2) at the core support that may go through the hood. 4 washers and nuts each max on the core support and trunk mounts. (2) washers and nuts each max on all other body mounts. Washers to not exceed 3"x3" and the bottom washer must remain inside the frame, washers must be free-floating, not welded to body or frame.

- Any welding to the body mount areas found will result in automatic disqualification.
- No attaching body bolts to any part of the cage/roll over bar.

### **FRAMES:**

- You may dimple your rear frame rails only to achieve the frame to roll.
- NO welding, bolting, wiring or adding any material/substance to strengthen frames. - At Inspectors discretion frames will be drilled, wire-wheeled or wiped down. Absolutely not painting or spraying any material on/in frames or welds. Cars will not be inspected.
- No cold bending/tilting/tipping frames period!! All frames will be checked with a straight edge.

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- An 8"x4" plate may be welded to the first 8" of the front and rear frame for bumper mounting purposes. (1) plate per rail on the front attached to the bumper. (2) per rail on the rear both attached to the bumper. 1/2" weld max.
- Rear Frame Humps - 03+ Fords are allowed a (1) 14"x6"x1/4" hump plate per side; 77+ GM cars are allowed (1) 24"x6"x1/4" hump plate per side; all other cars are allowed a (1) 20"x6"x1/4" hump plate per side. Straight across only, no contoured plates. If these are (tee pee) plates they will be measured before manipulation. 1/2" weld max on all hump plates.
- 77+ GMs and 79-02 Fords will be allowed (1) 4"x6" 1/4" plate per rail placed anywhere at your discretion. (If you need rust repair this will count as your plate). Old Iron and 03+ Fords will not get any fresh plates.
- \*Pre-ran cars will be allowed (3) additional 4"x6"x1/4" "Fix-It Plates" per side of frame rail\* • "Fix-It Plates" will be awarded after the heat at Warzone. 1/2" weld max on these plates, and minimum of 1/2" gap between plates, this includes the weld.

### **SUSPENSION and STEERING:**

- You may weld (2) straps per upper A-Arm 2"x2x1/4" material to maintain ride height.

You may change coil springs to a stiffer OEM passenger car spring.

You may use store bought spring spacers (no homemade spacers or spacers on top of the springs)

Leaf springs Cars: Spring Packs must have an OEM stagger, do not invert, flip, or re-stack springs differently than OEM. Leaf spring cars will have 2 options:

**Option 1.)** You may run hump plates but may NOT run more than (1) clamp or single-strand of #9 wire ahead of the rear axle around the leaf pack per side, (2) clamps or single-strands of #9 wire behind the rear axle around the leaf pack per side. If using clamps, they must be OEM in nature to that era of vehicle, do not use heavy duty or homemade clamps. (5) Leaf springs per pack.

**Option 2.)** You may NOT run hump plates but may use (3) clamps or single-strange #9 wire ahead of the rear axle around the leaf pack per side, (3) clamps or single-strand #9 wire behind the rear axle per side. If using clamps, they must be OEM in nature for that era of vehicle, do not use heavy duty or homemade clamps. (7) Leaf springs per pack.

You may use a double-strand #9 wire to hold coil spring to rear end.

All suspension and steering must remain stock (unless otherwise stated in rules).

Aftermarket steering columns and steering shafts are allowed. 03+ Fords must run the factory rack and pinion. These components may not strengthen the car in any way at any time. 1" steering column shaft max.

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Tie-rods may be reinforced in only (1) of the following ways;

**Option 1.)** Stock sleeve may be discarded and pipe/solid tapered rod can be put in its place.

**Option 2.)** Factory sleeves and ends may be welded and reinforced with steel. Tie-rod ends must be factory ends for that make/model of vehicle and fit the spindle and drag link without reaming the holes larger. A store-bought washer may be placed over the seam of the tie rod and welded.

Upper A-arms may be interchanged as long as they are able to be bolted on. You may cut/trim to make them fit but no welding on arms, brackets, etc. A-arm must bolt on factory brackets of the frame, no drilling new holes or enlarging existing holes. (**Example:** 79-91 Ford A-arms being installed on a 98-02 by cutting the mounting bar out and trimming the edges of A-arms to gain height).

-You may run manufactured aftermarket trailing arms, (**Example:** Toast trailing arms).

Solid trailing arms are allowed. Max size is 2"x3" tube that is no longer than factory trailing arms.

98+ Ford watts-links conversion will be allowed ONLY in the following way! Upper trailing arm brackets must be bolted in. They must be (2) separate brackets, may not be larger than 6"x12"x 3/8" thick max. with (4) 5/8 bolts, nuts and (8) store bought washers per bracket.

Brackets may only be bolted to frame package tray area above rear axle and bolts may not stick through body or be attached/strengthen any other part of the car.

Brackets may not strengthen the frame or body. NO WELDING AT ALL OF UPPER BRACKETS.

98+ Ford watts-links LOWER BRACKET Conversion: Only (1) way will be allowed to mount lower trailing arm bracket. (1) piece of square tube 3"x3"x3/8" max per side of frame may be used. Cut the square tube to make a C-channel. It must be welded to the inboard of the frame at the point you want your trailing arm mounted. Drill your hole through the tube and only (1) thickness of the frame (inboard side). Bolt your arm into place. No other bolts will be allowed to mount this bracket. No factory mounting brackets will be allowed to mount the trailing arms. No "pocketing" or "pinning" lower bracket through to the outboard side of frame. When swapping watts suspension, factory brackets must be trimmed off the frame.

### **DRIVETRAIN:**

You may run a steel bell housing and transmission brace. No part of the brace may be more than 4" wider/taller/longer than the transmission. If running a steel bell housing AND a transmission brace you must run the factory cross member to your make and model car. If running a bar-style/slide-over style transmission brace you may run a 2"x2"1/4" tube, straight crossmember with a 4"x4" 1/4" cross member mounting pad.

You may run a basic front plate and lower engine cradle (defined as being nothing above the heads) with pulley protector, no distributor protector, but it must be mounted to the vehicle with OEM style mounts (**Example:** Stock Chevy cups/mounts or aftermarket mounts with rubber bushings allowed). No mid-plates allowed! The cradle may not go more than 4" past the factory motor mounting position.

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You may run a carburetor protector. It may not mount or extend past the mid-point of the distributor. If it does go past the carburetor, you must cut the fire wall out 5" past the widest parts of the engine.

You may run engine "hold-down" chains, max 2 links per side welded to the engine cradle only. 1/2" wide weld

2003+ Fords may run a manufactured aftermarket bolt-in engine cradle. Aftermarket cradle may not strengthen or alter the factory steering or aluminum OEM cradle. (**Example:** 03 Nation or Cory Budde design, shown below). These may not be welded in, fix-it-plates may also not attach or weld to aftermarket cradle, no exceptions.



### **REAR AXLE:**

Any rearend allowed.

Rearend brace will be allowed. Rearend brace must be more than 5" from any part of the frame on fresh or pre-ran cars. Pinion brakes are allowed.

You may run 3/8" chain around the rearend attached to the frame with only (1) link per side welded to the frame for ride height control. Any extra chain links or weld on the frame will cause you to run working suspension.

### **DRIVERS COMPARTMENT:**

4-point square cage only, (1) down leg in the center of each front door welded to sheet metal only nothing to the frame. Max 60" cage over all measurements, must be mounted horizontally and 6" off of the floor. Gussets may be placed only in the interior of 4-point cage. Any part of the cage must be at least 4" off of the transmission tunnel or transmission brace. And 10"x2" max door bar size, 4"x4" square tubing or equivalent max for all other parts of cage.

Gas tank mount may be welded to back/seat bar. Back/seat bar and fuel cell/tank must be minimum of 1" from rear seat sheet metal/wheel tub and 5" away the interior of doors, and no taller than 10" above the top of the fuel tank. See below for mounting fuel tank/cell to floor.

Halo bar is allowed, (2) 1/2" bolts with 1/2" store bought washers to attach to roof. The halo bar may only be attached to the back seat bar or sidebars, not to floor. Halo bar may be mounted inside or outside over the roof from side to side of vehicle.

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Driver's door must be padded.

The stock gas tank and battery must be removed. Tank behind the seat, Battery centered in the passenger front floor. Tank and battery may be safely attached to roll cage within the 4-point.

Nothing may be mounted in a way that strengthens the car.

Transmission coolers are allowed. They must be mounted inside 4-point cage area or to cage. Must be tight to cage if mounted on back bar. Coolers must have approved high-pressure lines! Do not use fuel line or similar with clamps!

## **BUMPERS:**

You may "hardnose" front and rear bumpers if desired, but no shortening of rear frame. Follow rules below if using a shock.

You may run any bumper. OEM bumpers may be loaded. You may run replica bumpers. Bumper brackets (in factory location) may be welded continuously to frame 4" from the back of bumper only. If using bumper brackets, only OEM for make/model brackets for that vehicle allowed. In addition, you may plug weld the shock tube inside the frame. (**Example:** Welding the factory bolt hole to the shock tube). Plug welds shall be NO further than 6" from the back side of bumper (**Example:** Crown Vics).

An 8"x4" plate off the back side of the bumper. One plate per frame rail. Absolutely NO front bumper shocks on 03+ Fords, you may only use the plate option.

Shortening frames to the front of the core support mount allowed. Do not remove or move the core support mount. Your front bumper may also hard-nosed. Do not counter-sink bumper under core support mounts.

If bumpers cannot be mounted in this manner the driver must call and have the mounting method pre-approved. Rear bumper brackets on rear of car and front bumper brackets on front car only. You may use (2) pieces of 3/8" chain per side BOLTED from the mount to bumper, this is allowed to keep the bumper from falling off.

Bumper height must be 14" to 24" measured to the bottom of the frame at the back and front body mount location.

Bumper must appear stock from the stands with no spikes or protruding items. OEM, loaded, or manufactured aftermarket bumpers may not protrude more than an OEM Chrysler New Yorker "Pointy" bumper.

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### **TIRES & BRAKES:**

No tires taller than 30". (4) wheels max per car. Any tire/wheel combination as long as they are round and rubber.

Valve stem protectors allowed. Valve stem protectors may not extend more than 6" from valve stem.

Doubled or foam filled tires allowed.

All cars must be able to demonstrate the ability to stop at any time. If your brakes do not work, you will not compete.

You may not change tires after inspection, ride height will be measured with your competition tires only.

**Simple rules, simple build, keep it that way. Again, do not get "creative" or read into these rules, let's get back to the basics. If it is not clearly described above, it is not allowed. If it doesn't say you can, YOU CAN'T!! Again, if you have any questions, please Call or Text Logan Sorensen @ 231-343-8868.**