



2018 STOCK CAR TECHNICAL SPECIFICATIONS

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, the construction of a racecar and are in no way a guarantee against injury or death to a participant, spectator, or official.

Eldora Speedway, Inc. (Eldora) management 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 do 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.

This division will run under Eldora rules and all participants acknowledge that they have received, read and understand all of the rules and regulations associated with the event, and hereby agree to abide by all official Eldora decisions and regulations. Any deviation of these rules and regulations may result in fines or penalties including disqualification from the event.

On occasion, the assigned steward will be required to assess a competitor's interpretation with regard to the "Spirit and Intent" of the rules. His/her decision will be made in the best interest of the Eldora Stock Car division. Updates to the Technical Specifications throughout the season may be made by bulletin, announcement or at the driver meeting "Except In Rare Instances" (EIRI).

The Stock Car division is for those participants wishing to race stock appearing racecars based on production-based automobiles. Eldora offers DIRTcar UMP Modified and DIRTcar Late Model classes for those wishing to run those types of cars. The collective goal of the 2018 season is to continue the progress made over the past several years in returning the division to its roots in appearance, incredible parity and competition while incorporating the advances made by the aftermarket manufacturers of personal safety equipment.

– The 2018 Point Fund will award the Champion \$5,000 and pay the top-15 drivers –

In 2018, the Stock Car division will again be DIRTcar-sanctioned. All drivers are required to hold a valid [2018 DIRTcar UMP Sportsman membership](#) and a valid [2018 Eldora Speedway competitor membership](#). If the driver does not own his/her racecar, and/or winnings are not payable to the driver or a business entity which he/she is the majority partner, the Car Owner must also hold a valid 2018 Eldora Speedway competitor membership.

1. WEIGHT

- a. The minimum post-track activity weight requirement will be 3,000 pounds with the driver in position.
- b. **NEW: All added ballast must be securely mounted to two (2) ½" grade five bolts (minimum) secured to the frame, under the body, with weight clamps in a positive manner regardless of weight.** The ballast must be painted white and have the car number clearly marked on them.

2. APPEARANCE

- a. All cars must be neat in appearance, painted to look like a racecar and be neatly lettered with numbers a minimum of 20" high on both sides and 24" high on roof. Numbers to be 4" wide. Note that neon numbers "glow together" on the backstretch when viewed from the tower.
- b. Badly wrecked cars must be straightened.

3. BATTERY AND ELECTRICAL

- a. The battery must be securely mounted with positive fasteners and brackets.
- b. The battery terminals must be insulated or enclosed with a non-conductive material that will prevent contact with any part of the racecar should the battery become dislodged from the battery mount.
- c. One (1) mandatory battery disconnect switch must be installed on the rear deck, behind the driver seat, in a location that is easily accessible from outside the racecar. The switch must be clearly labeled with off/on direction. The switch must be directly in-line with the NEGATIVE battery cable and be capable of completely disconnecting the NEGATIVE terminal of the battery from the racecar. Negative or "ground" wiring connections must not be made anywhere from the battery negative terminal to the input side of the disconnect switch. An additional battery disconnect switch within the drivers reach may also be used.

4. BODY

- a. Open to any North American manufactured, 1950 or newer, full frame or uni-body passenger car. Must retain stock appearance. Aluminum or steel aftermarket template body permitted. SLAB AND/OR SLAB SIDE BODIES WILL NOT BE PERMITTED. Aftermarket plastic nosepieces and fenders may be used provided the stock appearance of the body is not affected. Nose and front fenders must be flush. Elephant Ears, flared or Late Model noses are not permitted. Examples of acceptable aftermarket noses are shown below.



- b. Nose valences, plastic rocker skirts or quarter panel extensions will not be permitted.
- c. Stock appearing fiberglass/plastic roof is permitted.
- d. Late Model or Modified-style sail panels will not be permitted. Quarter panels and C-Post should match nose of car.
- e. Rub rails no larger than **1" x 2"** may be attached to body from fender well to fender well, flush with body and painted to match car.
- f. All windows in body are to remain open. (rear quarter windows may be closed in but must be same both sides of car). NOTE: Driver seat may be no further back than quarter post.
- g. All doors must be bolted, welded or riveted shut.
- h. Cutting of any type on the body, with the exception of tire clearance, will not be permitted. Inner fenders may be removed.
- i. Body damage must be promptly repaired. Cars must be neat in appearance and remain stock in appearance.
- j. Hood and trunk lids (trunk 2' x 3' minimum) must be removable for inspection. Holes or openings will not be permitted in the hood.
- k. Rear tail area must be stock appearing and closed. Spoilers may be a maximum of 6" high (no fiberglass) extending no wider than top edge of fenders. Spoiler end caps will not be permitted.
- l. All glass, chrome, interior and exterior trim must be removed.
- m. Radiators may not protrude through the hood.

5. BRAKES

- a. Must have four-wheel brakes and lock up during inspection.
- b. Shut off device(s) of any type will not be permitted.

6. BUMPERS

- a. Stock or approved aftermarket nose and tail with internal bumper.
- b. Bumpers must be fastened to fenders or quarter panels (tied in).

7. CARBURETOR

- a. One 2-barrel carburetor only of stock production type. Must be Rochester or Holley of traditional design. Fuel injection systems will not be permitted.
- b. Willy's Carburetor roll over plate, part #WCD4000, is approved for competition.

8. CHASSIS, FRAME AND ROLL CAGE

- a. Full frame or uni-body. Uni-body must be tied together with minimum 2" x 2" steel box tubing.
- b. Minimum 104" wheelbase. Must be stock for body and chassis used.
- c. A 4-point roll cage is mandatory. Minimum required material is 1 3/4" D.O.M. mild steel tubing, .095" minimum wall thickness – subject to sonic test – with a minimum of three door bars on the driver side and two door bars passenger side. Diagonal, horizontal and rear brace bars are approved for competition.
- d. A minimum 1/8" steel intrusion plate on the driver's side is mandatory. See the 2018 Eldora Specific Rules for updated information on weld and approved bolt-on options: [ELDORA SPECIFIC RULES & SAFETY STANDARDS](#).
- e. Roll bar padding is recommended around the driver's compartment. A window net is recommended.
- f. Must have steel floor pan from front firewall to the rear of the driver's seat. May have aluminum from the back of the driver's seat to/and including the back firewall (straight across) as long as the aluminum is the same thickness as the steel in the front floor pan. Floor pan must follow near to stock lines from front firewall to rear firewall and extend frame rail to frame rail. Maximum step 10" - measured from floor panel below driver's seat.
- g. If rear frame is made of manufactured tubing, front clip must be at least 36" in length from ball joint to rear of clip.
- h. There must be a clearly marked lifting hook securely attached to the frame at both the front and rear of car. Lifting hook must be easily accessible by tow truck operator & must be capable of supporting the weight of car.
- i. Minimum of one driveshaft loop is required and must be at least 1/4" x 2" steel or 1/4" chain and should be mounted no more than 6" back from front of drive shaft. A second driveshaft loop is recommended.

9. DRIVESHAFT

- a. Carbon fiber and magnetic steel driveshafts are approved for competition.
- b. Driveshaft must be painted white with car number.

10. ENGINE

- a. Must be stock appearing and in traditional location. Engine setback may be no further back than centerline of #1 spark plug to ball joint. Cast iron heads and block. GM heads 23° only.
- b. Stock ignition only. Dual point distributor will not be permitted. Magnetos will not be permitted. MSD boxes will not be permitted.
- c. Electric or belt driven fuel pumps will not be permitted. Electric water pumps will not be permitted.
- d. Headers permitted. Exhaust must exit under car. Exhaust exiting inside the car will not be permitted.
- e. Only gasoline-type fuels will be permitted. Alcohol, ethanol or methanol will not be permitted.

11. FUEL, FUEL CELLS AND FUEL SYSTEM

- a. An approved fuel cell must be used at all times. Fuel cells must meet and/or exceed the FIA/FT3 or SFI 28.3 specifications or be constructed to these specifications. Key components of an approved fuel cell are: a metal container (.060 aluminum or 20-gauge steel), bladder, foam baffling for slosh and explosion suppression, top-mounted bolted fuel valve plate, flop valve and rollover vent valve, and threaded cap (ATL Part #751 Twist Cap approved for competition).
- b. Fuel cells must be used in accordance with the manufacturer's specifications. Alterations of any kind will not be permitted (example: alterations to top plate, alterations or removal of foam, etc.).
- c. Bolted fuel valve plate, fuel pickup and fuel return fittings must be on the top of the fuel cell.
- d. Fuel cells that are not contained within a welded steel tubing "rack" must have two (2) equally spaced steel straps that measure two (2) inches wide by 1/8 inch in thickness that completely surround the fuel cell. The straps must be bolted to the frame. Longitudinal (front to rear) orientation is recommended for strap mounting.
- e. Fuel caps must have car number on it.
- f. The Willy's Carburetor roll over plate, part #WCD4000, is approved for competition.

12. INTERIOR

- a. Interior must be completely gutted. Mirrors will not be permitted.
- b. Firewalls must be completely covered with sheet metal and extend door to door. Must extend down from top of fenders to top of frame rails on both sides. The only tunnel – 10” max height – permitted is the driveshaft transmission tunnel. Front firewall must follow near to stock lines. Rear firewall must be straight.
- c. Interior tin will not be permitted. Passenger side may have panel (18” max width) measured from outside door skin, with an inspection access. Panel must extend down to floor pan.

13. REAR ENDS

- a. Any Original Equipment (O.E.) car or truck rear end. Quick-change rear ends and/or quick-change type rear ends will not be permitted. Floater optional but strongly recommended.
- b. **UPDATED 4/25/2018: Travel Limiting Chains (also known as “Droop Chains” or “Safety Chains”) are approved for competition. A continuous chain, strap or tether may be secured to a positive mount in such a way to reduce the vertical (up or down) travel of the rear end while the vehicle is at rest. The device is not to be used as a means of controlling the lateral (forward or aft) travel of the rear end while the vehicle is in motion.**

14. SAFETY EQUIPMENT – DRIVER EQUIPMENT

- a. Minimum SFI 16.5 or 16.1 approved racing safety harness is required. Restraints must be mounted per the manufacturer’s instructions. The competitor is solely responsible for checking belts, equipment and harnesses for wear compared to the SFI date of expiration.
- b. Drivers, at all times they are on the track, must have their helmets correctly (following manufacturers’ installation and use instructions) connected to an approved head and neck restraint. Full-face helmets required. Driver’s helmets must display a legible and valid FIA 8860-2010, Snell SA 2005, Snell SA 2010, Snell SAH 2010 and/or a valid SFI 31.1/2005 label. It is strongly recommended that helmets should have the Eject™ helmet removal system installed as per the manufacturer’s instructions. The head and neck restraint must be SFI 38.1 approved and display a legible and valid SFI 38.1 label.
- c. The Original Equipment Manufacturers (OEM) of racing helmets recommend that helmets delivered with OEM bolt-on integrated aerodynamic features (aero devices, duckbills, gurney lips, wings, etc.) – especially those which are painted and/or wrapped by a graphics customizer – always be reassembled with OEM nylon bolts. OEM bolt-on accessories, as delivered from the helmet manufacturer, should not be re-affixed, bonded, glued or wrapped to the helmet by any method other than as delivered/recommended by the manufacturer as this invalidates the helmet’s FIA, SFI or Snell rating. OEM-approved accessory pieces, including aero devices and forced air intakes, should always be attached with double-sided adhesive per the manufacturer’s specifications.
- d. Drivers must wear a fire-resistant racing suit at all times they are on the track, during practice and competition. Driver’s suit must meet or exceed SFI 3.2A/5 specifications and have a legible and valid SFI label.
- e. Drivers must wear gloves at all times they are on track, during practice and competition. Driver’s gloves must meet or exceed the SFI 3.3 specification and have a legible and valid SFI 3.3 label.
- f. Drivers must wear fire resistant shoes at all times they are on the track, during practice and competition. Driver’s shoes must meet or exceed SFI 3.3 specifications and have a legible and valid SFI label.
- g. A Racing Electronics SWITCH-R or RACEceiver is mandatory (no other scanning/transmitting device permitted).

15. SAFETY EQUIPMENT – RACECAR INSTALLED

- I. All seats must be “Full Containment” style constructed of aluminum to the general design specifications of current industry standards. Design shall include comprehensive head surround, shoulder and torso support system, energy impact foam, and removable head foam. Consult with your seat manufacturer and safety equipment manufacturer for questions and recommendations regarding your seat safety system.
- II. Up-fitting a current seat with bolt-on kits will be permitted with a seat manufacturer-produced kit and an acceptable base seat approved by the seat manufacturer. Consult with your seat manufacturer for recommendations regarding your current seat. Components must include comprehensive torso, shoulder and head surround support system with energy-absorbing impact foam. Must be installed in accordance to seat manufacturer instructions. Combining components may not meet SFI certification.
- III. Seats must be used as supplied and installation following instructions provided by the seat manufacturer. An exception of trimming the length of the left side head surround for the purpose of egress may be approved. If the left side head surround is trimmed to a distance that is less than seven (7) inches, then a left side head net meeting the SFI 37.1 specifications must be installed with a quick release latch, approved nets include the Simpson C5R: <http://simpsonraceproducts.com/harnesses/c5r-driver-net/>
- IV. Seats must be mounted to a seat frame that is welded to the racecar frame/roll cage structure. Attachment points, angles, and materials for the seat frame and mounting of the seat to the seat frame must be in accordance to the seat manufacturer instructions. ***The use of a SFI 39.2 certified seat is recommended***

FIRE SUPPRESSION – MANDATORY BY JUNE 1st

- I. All racecars be equipped with a thermally deployed automatic fire suppression system. The fire suppression system will consist of a DOT approved cylinder manufactured from aluminum or steel with a capacity of ten (10) lbs. of fire extinguishing agent, steel or steel reinforced lines, and two (2) thermally activated discharge nozzles.
- II. All systems must meet or exceed SFI 17.1 specifications.
- III. Systems must be fully charged with ten (10) lbs. of DuPont FE-36, 3M NOVEC 1230, or Fire Aide and display a legible and valid SFI and manufacturer label depicting fire extinguishing agent, capacity, and certification date. Cylinders that are beyond useful certification date must be inspected, serviced and re-labeled by the manufacturer.
- IV. Cylinders must be mounted forward of the fuel cell. Cylinders must be securely mounted to the frame/roll cage assembly. The certification label must be unobstructed and easily accessible for inspection when the mounting is complete.
- V. The cylinder must be connected to the nozzles with steel or steel reinforced lines.
- VI. Two (2) thermally activated nozzles must be used. One (1) nozzle must be located directly above the fuel cell in the fuel cell area and the second nozzle must be located in the driver cockpit area. Additional discharge nozzles are permitted.
- VII. An optional manual override cable may be added to the system.

16. SUSPENSION

Suspension and components must be stock in design in accordance with the Original Equipment Manufacturer (O.E.M.)'s assembly line production model with the following exceptions:

- I. Suspensions may differ from body-style and may differ from front to rear.
- II. Weight jacks are optional. Front suspension and steering must be unaltered O.E. and in stock location and must be replaceable by stock (or acceptable replacement) part from same type suspension (non-adjustable tubular upper A-arms permitted. Swedged tube/heim may be used on outer tie rods). Stock passenger car spindles only. No fabricated spindles. Bottom A-frames must not be altered or moved.
- III. Quick-release hub and steering quickener are optional.
- IV. Shock absorbers may be moved and are not required to remain in stock location. One traditional shock and spring per wheel. Canister style, external canister, or double (triple)-adjustable shocks will not be permitted.
- V. An aftermarket Panhard bar is optional but must be solid. Upper torque link/biscuit bar (24" maximum length) optional but mounting point on car must be within 24" inches of axle centerline. Biscuit bars cannot breach the rear firewall. MacPherson struts or coil overs will not be permitted. Coil over eliminators will not be permitted. Added lift arms, shocks or springs will not be permitted. Swing arm, four-link or z-link suspensions will not be permitted. Birdcages are not stock O.E.M. equipment and will not be permitted. Rear suspension area must remain open and unobstructed for inspection. The GM G-Style frame must remain year specific and may have a stock O.E.M. four-link application. **No droop chains (see Rule 13 (b)).**
- VI. No suspension, driveline parts or mounts permitted inside the driver compartment.
- VII. Composite leaf springs permitted. Leaf spring sliders will not be permitted.
- VIII. **UPDATED 4/25/18: All coil springs must be cabled or tethered.**

17. TIRES & WHEELS

- a. **UPDATED 4/25/2018: All four wheels must be steel and measure a maximum width of eight (8) inches wide. Wheels are measured using an industry standard wheel caliper with a tire approved for competition mounted.**
- b. **Approved bead lock wheels, as manufactured from the factory, or wheels upfit with approved manufacturer steel bead lock kits, may be granted a maximum of .75-inches to accommodate the bead lock hardware by the officials at their discretion.**
- c. **Each wheel must be secured with five (5) x one (1) inch lug nuts.**
- d. Right front and right rear must be racing wheels.
- e. Tires approved for competition:
 - Hoosier A-40, D-40 and H-500 – Groove & Sipe permitted on Left Front & Right Front positions.
 - M-30s – No Groove & Sipe permitted in any position.
 - M-60 – Groove & Sipe permitted only when in Right Rear position. (more...)

Alteration of the factory compounds as manufactured is prohibited per DIRTcar rules.

- f. Only approved wheel discs will be permitted and only on the right side of the car. **Approved** wheel discs are wheel discs that are fastened to the wheel using a minimum of three (3) 5/16" diameter magnetic steel hex head bolts or five magnetic steel dzus fasteners. The use of wheel discs with any other type of fastener will not be permitted. Wheel discs must be marked with the car number.
- g. No bleeders.

18. TRANSMISSION AND CLUTCHES

- a. Ball spline transmissions will not be permitted.
- b. All cars must start, stop and operate in forward and reverse while the engine is running.

*****IF IT IS NOT IN THESE RULES, IT IS AGAINST THE SPIRIT AND INTENT OF THE STOCK CAR DIVISION*****

– The absence of a specific rule does not imply approval, consent, or permission regarding the subject –