

# 2016 DIRTcar Stock Car Rules

## TO ALL COMPETITORS/PARTICIPANTS

- ❖ The following are the 2016 DIRTcar Stock Car rules. All amendments supersede any previous rules regarding any technical article and/or aspect.
- ❖ Under the guideline of the 2016 DIRTcar Stock Car rules any and/or rules and as stated in the 2016 DIRTcar UMP Rule Book, all DIRTcar rules apply to all sanctioned divisions.
- ❖ The specifications published shall be considered a section of the “*Official Rules and Specifications*” for all events, series and sanctions by World Racing Group. All sections should be considered when determining specifications and governance.

### 15.0 DIRTcar Stock Car Rules

**ANY CAR, TEAM AND/OR DRIVER THAT DOES NOT MEET THESE SPECIFICATIONS AND/OR EQUIPMENT REQUIREMENTS WILL BE SUBJECT TO PENALTIES AS DETERMINED BY THE DIRTcar and/or World Racing Group OFFICIALS.**

### 15.1 - Engine

#### 15.1.1 Engine

- A.) The engine and body must be manufactured by the same company and be within the same manufacturer's model line when introduced into competition.
- B.) The number one (1) spark plug must align itself in a perpendicular line with the center of the upper ball joint for each manufacturer.
- C.) The engine block must be cast iron from an OEM manufacturer. In addition to the factory OEM blocks only the GM Bowtie blocks with the casting numbers of 10051181, 10051182 and 10051183 will be permitted. The SHP DART Block will be permitted for competition.
- D.) DART Big M and Little M Blocks permitted**
- E.) Aluminum engine blocks will are not permitted.
- F.) Cast iron cylinder heads of any make are permitted.
- G.) Aluminum cylinder heads of any origin are not permitted.
- H.) Roller tip rocker **and roller type rocker** arms are permitted.
- I.) Roller Cams of any-type are not permitted.
- J.) Roller and/or mushroom-type lifters are not permitted.
- K.) Cast Iron or Aluminum intake manifolds are permitted.
- L.) Cast Iron or aftermarket exhaust headers are permitted. The direction of the exhaust flow must exit away from the car and the track surface.
- M.) HEI distributors are permitted. The OEM firing order for the engine must be maintained.
- N.) Racing-type and/or specific racing-type distributors not permitted.
- O.) MSD boxes and/or any other ignition amplifier boxes of any type not permitted.
- P.) Conventional or Aluminum radiators are permitted
- Q.) One 500 CFM 4412 Holley unaltered carburetor is required. The local track rules reserve the right for carburetors to be claimed and/or changed (i.e. “swapped”) for competitive analysis and/or inspection.
  - 1.) The original choke tower must remain in its stock position and configuration.
  - 2.) The choke blade may be removed.
  - 3.) Any other alterations to the body of the carburetor, internal working mechanisms, venturis, throttle plate and/or any other part and/or component of the carburetor will not be permitted

- 4.) Carburetor jets may be replaced and/or adjusted as an engine tuning method.
- R.) Only mechanical fuel pumps permitted.
- S.) All cars must be equipped with an operable starter in working condition.

#### **15.1.2 Chevrolet 602 Engine Option**

- A.) A.) The Chevrolet Performance Parts 602 engine (GM Part Number – 88958602) will be the only engine permitted for competition with this option. All engines are to remain sealed from the factory. The original factory seals must remain unaltered, tampering, removal, modifications of any type and/or broken factory seals will not be permitted. (The Chevrolet Performance Parts 602 crate engine may have part number changes from time-to-time as issued by the manufacturer.)
- B.) **One (1) four (4) barrel 650 cfm unaltered Holley carburetor, Part Number 4777 or 80777 or Holley HP Carburetor Part Number 80541-1, (-2) will be permitted. One (1) two (2) barrel unaltered 500 cfm Holley carburetor Part 4412 will be permitted. All carburetor components must remain unaltered. Any changes will result in disqualification from the event. Any alterations to the carburetor will not be permitted.**
- C.) All engines and all components must remain in their original configuration and form as purchased and/or delivered from the factory. Any changes will result in disqualification from the event. Any alterations to the engine will not be permitted.
- D.) Any part that is sealed from the factory that has been tampered with and/or removed will result in an immediate penalty. The minimum penalty will be a \$1,000 fine, loss of all accumulated points for the year and a loss of all earned purse money for the event night.
- E.) Any issued penalty may include and will not be limited to a suspension of the car, driver, car owner, engine builder from participation in any World Racing Group event.
- F.) Any participant (driver, car owner and/or engine builder) that is found to have tampered with the engine will lose all points accumulated for the season, all earnings and the parts will be impounded for competitive analysis. In addition the participant may be suspended indefinitely from all World Racing Group events.
- G.) Changes and/or alteration to the engine, intake manifold, cylinder heads, valve covers, valve components, front cover, oil pan, harmonic balancer and/or any parts on or in the engine will not be permitted.

#### **H.) ENGINE INSPECTION AND/OR ENGINE EXCHANGE**

- A.) World Racing Group and/or DIRTcar Officials reserve the right to exchange or impound any engine at any time for competitive analysis and for inspection. Failure to allow the engine to be retained for the impound procedure will result in disqualification from the event and possible further penalties.
- B.) The engine that has been impounded and/or exchanged will retain all components as the engine was received from the factory or on the factory sale list.

#### **I.) Chevrolet Performance 602 ENGINE DISTRIBUTOR / IGNITION**

- A.) Magnetos will not be permitted.
- B.) Electronic ignition will be permitted.
- C.) MSD-type, ignition amplifier boxes will be permitted. The MSD 6ALN Ignition box is recommended.
- D.) Series retains the right to change MSD boxes with any car at any time without notice.

### **15.2 - Transmission & Driveline**

#### **A.) TRANSMISSION AND DRIVELINE**

##### **All Types:**

- a.) The transmission must have a minimum of at least two forward gears and one reverse, plus neutral position.
- b.) With motor running and car in still position, the transmission must be able to engage the car in gear and the car must be able to move forward, then backward.
- c.) Only OEM production type transmissions will be permitted - two speed, three speed, four speed and automatic.
- d.) Five speed (or more) transmissions, "in and out" boxes, and/or quick change will not be permitted.

- e.) All functioning shift levers must be located in OEM position. The flywheel and/or flexplate must be bolted directly to the end of the crankshaft, and the pressure plate must be fastened and/or bolted directly to the flywheel/flexplate.
- f.) Only one (1) flywheel/flexplate will be permitted. All driveline components within the bell housing must rotate consistent with the RPM of the engine while the car is in any gear. Only unaltered an unaltered OEM flexplate and/or an OEM replacement will be permitted.
- g.) Bert and/or Brinn and/or Falcon type transmissions will not be permitted.

**Manual:**

- a.) Any manual-type transmission must be in an OEM or OEM replacement case.
- b.) In manual-type applications only an external steel and/or aluminum, single or multi-disc clutch inside an explosion-proof steel bell housing will be permitted. The bell housing must be a minimum 270 degrees around top of clutch/flywheel area.
- c.) Special purpose, after-market type racing transmissions will not be permitted.

**Automatic:**

- a.) Any automatic-type transmission must remain in an OEM or OEM replacement case, with a functioning OEM appearing pump.
- b.) An aluminum OEM bell housing and/or aftermarket explosion-proof aluminum bellhousing will be permitted.
- c.) The original OEM bell housing must have an approved scattershield constructed of minimum 0.125" inch by three (3) inch steel, 270 degrees around flexplate. Manual bump starts will be permitted.

**15.2.1 Drive Shaft**

- A.) The driveshaft must be a minimum two (2) inch diameter and made from magnetic steel.
- B.) The driveshaft must be painted white and clearly labeled with the car number on the white portion of the driveshaft.
- C.) Only magnetic steel slip-yokes will be permitted.
- D.) A 360-degree drive shaft loop will be required and must be constructed of at least 0.25" inch by two (2) inch magnetic steel, and/or one (1) inch diameter tubing, mounted six (6) inches behind the front universal joint. A second drive shaft hoop is recommended and must be placed within 12" inches of the front universal joint.

**15.3 - Chassis**

- A.) Only American manufactured cars and/or *full-size "uni-body" type* cars will be permitted. Sports car chassis for the Chevrolet Camaro / Pontiac Firebird and/or the Ford Mustang from 1967 to 1985 will be permitted.
- B.) All vehicles must maintain a minimum of 107" (inch) wheelbase.
- C.) Altering of stock frame, with the exception of repair to the original frame to maintain original specifications will not be permitted. Repairs that will be acceptable will include patching of holes and/or rust(ed) areas of the frame. Repairs will be approved at the discretion of DIRT CAR Officials and/or local track officials.
- D.) The rear frame may be replaced from the rear shock absorber mounts toward the rear of the car.

**15.4 – Weight**

- A.) The minimum weight requirement at all times will be 3,200 lbs (pounds).
- B.) All weights must be securely mounted with two (2) ½" (inch) bolts securing them to the frame in a positive manner. The weight(s) must be painted white with the car number clearly marked on them. All weights must be mounted under the body of the car.

**15.5 – Fuel Cells and Fuel**

- A.) Only gasoline-type fuels will be permitted.
- B.) The fuel cell must be securely mounted in the rear of the car and secured with straps. It is recommended that the fuel cell be mounted solidly to the rear frame rails of the vehicle in a fabricated manner.
- C.) All fuel cells must be enclosed in a metal container.
- D.) The fuel cell must be a steel container with a minimum of two (2) one (1) inch by 1/8" (inch) steel straps on each side of the container to mount the fuel cell.

- E.) Only gasoline will be permitted. Methanol and/or any other type of fuel and/or any type of fuel additive will not be permitted.

## 15.6 – Body

- A.) The body, frame and engine must match the manufacturer. The body, body mounting position and overall appearance must retain all stock OEM dimensions and original body line and contours and must be centered over the wheels. **Shortening and/or overlapping of the body panels will not be permitted.** All glass, chrome and upholstery must be removed from body prior to competition. The body must be made from magnetic steel. **Bodies that appear to be flat sided and/or do not have stock contours and appearance and/or appear to be fabricated from scratch will not be permitted.**
- B.) **Station Wagon, Truck, SUV, body styles not permitted.**
- a. The following are the critical body dimensions;
- A minimum roof height of 51"-inches
  - A minimum of 6"-inches ground clearance, nose and/or the side rocker panel(s).
  - The minimum door length will be 28 ½"-inches.
  - The minimum window opening will be 14"-inches measured vertically from the top of the door to the bottom of the drip edge on the roof.
- C.) Stock and/or after-market 'production-type' piece diagrams may be used for reference in regard to dimensions, proper mounting position and location for any standard body.
- D.) The top and/or roof of the car may be removed to install the roll cage assembly, but it must be replaced and fastened in its stock OEM location.
- E.) The front windshield opening must be covered with ½" x ½"-inch and/or 1" x ½"-inch wire mesh. It is also recommended that three (3) support bars fabricated from magnetic steel tubing, a minimum of 1"-inch diameter and .095" wall thickness be spaced equally in front of the driver and welded to the top roll cage bar and the dash bar of the roll cage in a vertical manner.
- F.) The inner door panels may be altered for the placement of the door bars in the roll cage assembly.
- G.) **The floorpan and firewalls must be stock in appearance and be complete on both the driver and passenger side of the vehicle. The front firewall must be a maximum of 12"-inches behind the rear edge of the engine block.** The floorpan and firewalls (front and rear) may be repaired and/or fabricated, but must retain stock appearance and stock material thickness. The minimum thickness for replacement material / patches on the floorpan will be .060" with the maximum being .125"-inch magnetic steel. The only alterations permitted to the floorpan and/or firewall will be for the proper engine setback. Any alterations to the floorpan and/or firewall material thickness will not be permitted.
- Repair of the floorpan or firewall patch, if needed, must be made with magnetic steel with minimum thickness of the original in the stock location. Repair patch is limited to the repair or hole only.
  - Floorboard may be cut for the mounting of the roll cage only.
  - The floorboard must have a driveshaft tunnel.
  - Firewall(s) must be sealed and complete. Open holes in the firewall will not be permitted.
  - The front of the rear firewall must maintain the same height as the top of the front of the dashboard.
  - The maximum length of the dashboard from the front firewall to the edge of the dashboard panel will be 24"-inches.
  - The firewall must be at a 90-degree angle from the floorpan.
- H.) The driver and passenger compartment must remain open from left to right exposing the stock-appearing floor pan and to the rear seat firewall and shelf. There may be an enclosure on the passenger side of the vehicle, a maximum of 6"-inches in width from the top outside edge of the door, for the purpose of routing and covering the fuel line as it passes through the driver compartment, unless a conduit is used. Additional sheet metal including cockpit type enclosures and/or any modifications within the interior of the car and/or driver compartment area will not be permitted.
- I.) The trunk floor area may be cut to allow for the mounting of the fuel cell.
- J.) The body, including fenders, quarters, hood, roof, decks doors must be magnetic steel and remain stock or approved stock in appearance.
- K.) The body must be mounted in its stock OEM location and centered between the wheels. Chopping and/or channeling of the body will not be permitted.

- L.) Exposed tubing and/or bracing outside of the bodyline of the car will not be permitted with the exception of rub/side rails.
- M.) Plastic aftermarket front nose will be permitted provided they are approved and stock appearing for the year, make and model of the car. Late Model type aerodynamic noses will not be permitted.
- N.) Rub/side rails may be attached flush to the body from the fender well to the rear quarter panel.
- O.) A maximum seven (7) inch visor/sun shield may be added to the top of the windshield opening. The window openings, front and/or rear, driver and/or passenger side must retain their stock OEM dimensions.
- P.) Mirrors of any type are not permitted.
- Q.) The back of the hood must be sealed off from the driver's compartment.
- R.) The front bumper must remain stock. Sharp edges will not be permitted. Both sides and ends of the bumper must be capped. Tube-type front bumpers will be permitted. Tube-type bumpers must have capped ends.
- S.) The rear of the car must be enclosed. The rear bumpers may be covered and must have round edges and connect solidly to the frame. After-market rear bumper covers will be permitted provided they are approved and stock appearing for the year, make and model of the car.
- T.) Front and/or rear spoilers of any type are not permitted. Spoilers that are molded as a part of an OEM type application may be permitted.

### 15.7 – Suspension

- A.) All suspension components must remain stock in their OEM mounting locations for the year make and model of the vehicle with the exception of racing shocks and/or springs that are mounted in stock locations.
- B.) The steering shaft may be a collapsible shaft
- C.) Aftermarket steering wheel and quick release are permitted.
- D.) Steering quickening devices are permitted.
- E.) After-marketing steering components will be permitted. After market steering components must be similar and/or replacement in type to the OEM application for the make and model of the vehicle.
- F.) Only stock OEM-type bolt-in upper ball joints will be permitted. Adjustable and/or truck type ball joints will not be permitted. Cutting and/or alterations to the frame will not be permitted to accept any other type or style of ball joint.
- G.) Only DIRTcar approved Tubular-type A-Frames, mounted in their stock OEM location will be permitted. The A-Frames may be reinforced along the edges by welding round stock. Cutting and/or changing lengths of the A-Frames will not be permitted.
- H.) Only stock OEM and/or Ford 9"-type rear ends will be permitted for competition. Quick change rear ends will not be permitted.
- I.) **The lower rear trailing arms must remain in their stock OEM length, format and length, from the original OEM application and measurement system (English or Metric) and must remain specific to their particular chassis/frame and must be the same length on each side.** The lower rear trailing arms must be mounted in the stock location. Additional holes in the frame and/or rear end will not be permitted.
- J.) The upper rear trailing arms may be altered (shortened and/or lengthened) to obtain the correct pinion angle.
- K.) Aftermarket bushings will be permitted, but the arm must not be altered in any manner. Slots and/or adjustable rod ends will not be permitted.
- L.) Leaf-type springs will be permitted. Only stock OEM-type magnetic steel leaf spring(s) stack(s) will be permitted. Single leaf, mono-type-leaf and/or any type of slider and/or any composite leaf-type applications will not be permitted.
- M.) Coil-over applications of any-type will not be permitted.
- N.) Aftermarket coil springs will be permitted. The coil spring location may be altered, however, the centerline of the axle tube may not be any further forward than the front of the spring or not further back than the rear of the spring.
- O.) Only magnetic steel body, non-adjustable shock absorbers will be permitted.

a) ***The DIRTcar approved –A-type shock absorbers displaying the DIRTcar “Approved” decal will be permitted to compete.***

P.) Weight jacks will be permitted.

Q.) Hydraulic ratchet and/or electric weight jacks are not permitted.

R.) Only stock-type OEM brakes will be permitted. Disc brake(s) will be permitted on the rear brake(s) provided that the rear brake caliper(s) match the front brake calipers. Alterations to the rear brake rotors, to fit the rotor to the rear only, will be permitted. All four corners must be in working condition prior to and following the completion of competition. After market brake pedals will be permitted. Brake bias adjusters and valves will not be permitted.

S.) Suspension components that are adjustable within driver compartment of any-type will not be permitted.

## **15.8 – Wheels and Tires**

A.) A maximum 8” (inch) wide steel racing wheel will be permitted. Aluminum and/or magnesium and/or mag-type and/or homemade wheels will not be permitted. one (1) inch magnetic steel lugnuts will be permitted on all four corners of the vehicle.

B.) Only Hoosier E-Mod tires; compounds, D, H and/or A will be permitted. The DCM 400 will be permitted.

A.) Siping of tires will be permitted. **Grooving of rear tires will not be permitted after June 1, 2016. Grooving of front tires will not be permitted after December 31, 2016.** Recapping of an approved tire is not permitted.

B.) The local track rules may prevail on the specific tire and tire choice rule of the three offered Hoosier E-Mod compounds.

C.) Any type of alteration, chemical or mechanical, to the face and/or sidewall of the tire will not be permitted.

D.) A bead lock will be permitted on the right rear tire only.

## **15.9 - Personal Protection Equipment**

### **15.9.1. General**

A.) It is the sole responsibility of each competitor for the effectiveness and proper installation, per the manufacturer’s specifications to be adequate for competition at every event. Each competitor is expected to investigate and educate themselves for continuing improvement regarding their own personal safety equipment.

### **15.9.2 Seat Belt/Restraint System**

A.) It is recommended that each car be equipped with an SFI 16.5 or SFI 16.1 approved seat belt restraint system until the date of the belt expiration (usually two years). Seat belts restraint systems shall be installed in accordance with the directions and application of the system supplier or manufacturer.

B.) Seat belt webbing that comes into contact with any sharp or un-radiused metal edge should be protected from that edge by means of push on grip vinyl trim. Seat manufacturers supply the seat with trim protecting the webbing from abrasion or cutting under impact conditions and should be used to their specifications.

C.) It is the responsibility of the driver, not the Officials or the Promoter to ensure that his/her seat belt restraint system and all components are SFI approved, correctly installed, maintained and properly used.

### **15.9.3 Protective Clothing**

A.) Each driver should wear a fire resistant uniform meeting the SFI 3.2A/5 specification and display a valid SFI 3.2A/5 label.

B.) Each driver should also wear fire resistant accessories that effectively cover the remaining parts of the body. Shoes and gloves should meet the SFI 3.3 specification and display a valid SFI.3label.

### **15.9.4 Seats**

A.) It is recommended that an aluminum seat built specifically for the purpose of competition in auto-racing events be required

B.) High-back Aluminum (stockcar style) seats should be securely mounted to the frame as recommended/required by seat manufacturer and chassis manufacturer.

- C.) **The seat must be mounted near the stock OEM location of the front seat for the year, make and model of the specific vehicle. Seats mounted past the rearward edge of the stock location on the driver's side of the vehicle will not be permitted.**
- D.) Head rest (behind the head) should include padding. All areas surrounding the head should have padding
- E.) A right head net or support is required. Head nets must be equipped with quick release mechanisms
- F.) **The seat must be mounted a minimum of 30" (inches) from the centerline of the rear end, measured at any point of the rear of the seat.**

#### 15.9.5 Helmets

- A.) Driver should wear a full face helmet, with at least a valid SA 2000 or SA 2005 Standard Snell and/or a valid SFI 31.1, SFI 31.2 or SFI 31.1 2000 label.
- B.) The driver should wear the helmet in accordance with the directions provided by the helmet manufacturer and/or supplier.
- C.) If a head and neck restraint system is connected it should conform to the manufactures mounting instructions.
- D.) Head and Neck restraints are strongly recommended.

#### 15.9.6 Other

- A.) No sharp or protruding edges in or around the **driver compartment**, which would impede the driver's rapid exit from the car.
- B.) Windshield screens with a minimum of .090 inch screens must be securely fastened
- C.) An electrical engine shut off switch is required. The switch must be clearly labeled and within the reach of the driver.
- D.) A fuel shut off valve is recommended and **should be utilized**. The valve should be clearly labeled and within reach of the driver. **The fuel line must not enter the driver compartment.**
- E.) Flame retardant seat, roll bar, knee and steering pads or padding are recommended

#### 15.10 – Roll Cage

- A.) A minimum 4-point competition roll cage is required. The roll cage must be constructed of magnetic steel tubing that is a minimum of 1 ½" in diameter, with a minimum tubing thickness of .095 (wall thickness). The roll cage must be located within the stock OEM parameters of the doors of the vehicle. **Roll cages that are moved toward the rear of the car and/or offset will not be permitted.**
- B.) A minimum of three (3) horizontal door bars are required on each door.
- C.) A minimum of three (3) driver protection bars are required in the windshield.
- D.) Front and rear bars that pass through the firewall will be permitted, with one (1) kicker bar to the frame.
- E.) A radiator protection bar will be permitted.
- F.) **There must be a minimum of 40"-inches between the outside edge of the front and rear down bars at the top of the door panel. A maximum of 41"-inches (48"-inches on 1988-1996 GM-type bodies) from the top center of the windshield to the front edge of the rear hoop and a maximum of 13"-inches (20"-inches) for 1988-1996 GM-type bodies) to the front edge of the top halo. The**
- G.) **The top halo must be a minimum of 40"-inches across outside-to-outside.**
- H.) **The rear hoop must be a maximum of 12"-inches in from the bottom of the opera window.**
- F.) **The rear vertical roll bar hoop must be mounted on the rear body mount in the center section of the frame a maximum of 81"-inches rearward of the centerline of the right front wheel/spindle. Rear vertical roll bar hoops mounted on the rear frame rails (rearward of the rear body mounts) will not be permitted. The rear vertical roll bar hoop of the roll cage should be perpendicular to the frame and must not exceed a ten (10) degree variation from perpendicular in its vertical rise from the frame.**

#### 15.11 – Other

A.) Any battery that is mounted inside the driver's compartment must be completely enclosed in a marine-type box, with a lid and mounted securely.