

# GRAND NATIONAL DIVISION 2012

ALL GENERAL TRACK RULES APPLY. PLEASE REFER TO GENERAL TRACK RULES SECTION FOR CAR NUMBER REQUIREMENTS, APPEARANCE GUIDELINES, START TIMES, AGE REQUIREMENTS AND MANY MORE ISSUES. RACE TEAMS NOT COMPLYING WITH GENERAL RULES WILL NOT BE ALLOWED TO COMPETE. RULE VIOLATIONS ARE IN LISTED IN THE GENERAL RULES.

SEE TRACK OPERATIONAL RULES FOR SAFETY RULES, SEAT BELTS RULES

**IF IT DOES NOT SAY IT IS ALLOWED IN THE RULES, IT IS ILLEGAL. IF YOU ARE UNSURE OF ITS LEGALITY PLEASE CONTACT A TRACK OFFICIAL. THANK YOU!**

## WEIGHT RULE – 3000 LB.

### Eligible Models

GM, AMC, Chrysler, Ford or U.S. manufactured auto. No pickups, station wagons or convertibles allowed Special built models accepted upon official approval

### Frame

1978 to 1988 GM metric frames only unless run previously. Frames must be X-ed; side rails must be plated where open. Front cross member may be notched and plated for fuel pump clearance only. Weight jacks or screw jacks allowed. Frame rails behind rear spring pockets may be cut and fabricated. Must have a minimum 108" wheelbase. No other improvements allowed except to repair rusted or damages areas.

### Construction Guidelines

- A. Frame plating material (4" x 1/8") flat strip steel.
- B. Roll cage main hoop set back 82 1/2", measured from center of lower ball joint to back of main hoop tubing. No portion of the seat may extend beyond 80 3/4" from the left lower ball joint
- C. **Mandatory** X-brace, (Choose 1 material, no mixing).
- D. Drivers compartment safety bar (same material as X-brace).
- E. Fuel cell safety straps (minimum 4) 1" x 1/8" strap steel.
- F. Tail section replacement, same dimensions as stock frame.
- G. Floor plate 1/8" steel plate, minimum width 20" at seat.  
*(X-brace must tie into original frame, not frame plating)*

### Roll Cage

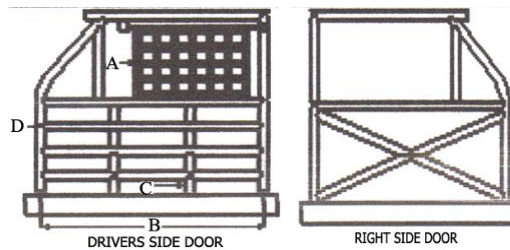
Four-point roll cage constructed of 1 3/4" x .095" wall steel round tubing. NO Layback cages. Roll cage main hoop must be at a 90 degree angle to main frame rails at the discretion of safety inspector. One front and one rear cross brace, recommended height at 20". The main hoop behind driver must be cross-braced. Two passenger side and four driver side door bars, with driver side door bars plated and having two upright bars between each driver door bar. Wing window bars on drivers side mandatory; passenger side recommended. Foot protection bar (may be plated for added safety). Two front support bars must start at cross brace height at roll cage corners and extend forward to frame. Four rear support bars must extend to frame, two starting at the rear cross brace at roll cage corners and two from the top corners of the rear cage hoop. **Halo bar must have one cross bar running either front to back or diagonal made of 1-3/4" x .095" wall steel round tubing**

### Construction Guidelines

- A. Wing window bars, **mandatory** Drivers side opening must be a minimum of 15 inches!
- B. Minimum wheelbase 108"
- C. **Mandatory** safety plating, 1/8" steel minimum
- D. Stock frame from this point forward
- E. Rear frame tail section, 2' x 3' x .095 steel tubing
- F. Fuel cell can mandatory (20 gauge steel)
- G. Foot area protection bar, **mandatory**
- H. Dark shaded bars may be 1 1/2' x .065 wall steel tubing, all other tubing 1 3/4" x .095
- I. All cages must have these front and rear support hoops/bars
- J. Braced .095 wall steel tubing, fuel cell guard

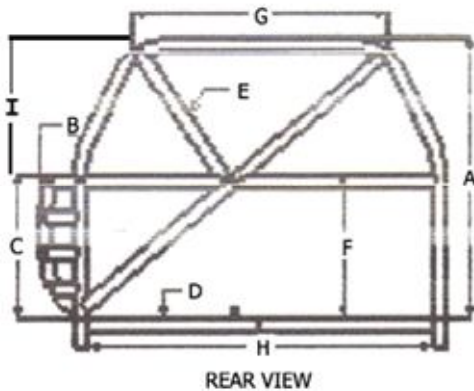
### Drivers Compartment

High back aluminum racing seat is mandatory. Seat must be bolted in with six 3/8" Grade 5 or Grade 8 bolts. Four bolts in the seat bottom and two in the seat back, NO CARRAGE BOLTS! NO portion of the seat may extend 80 3/4" from the left lower ball joint. A window net with buckle release mounted on the top left corner is required. All roll cages must provide a minimum of 2" of clearance measured from the top of the roll cages to the top of the driver's helmet when driver is seated and strapped in driving position. The center of the steering wheel must be padded and all roll bars that the driver could contact must be adequately padded.



### Construction Guidelines

- A. Approved window net, **mandatory**
- B. Recommended door bar length, 44"
- C. 2 door bar uprights between each door bar, **mandatory**
- D. 4 door bars evenly spaced on drivers side, **mandatory**



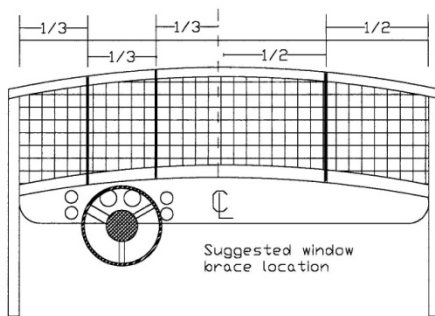
### Construction Guidelines

- Main hoop (vertical to frame) recommended 39" high from top of frame
- Door bars should be flush to panel (with the body centered & mounted in stock location on the frame).
- Door bar height (minimum 20" high from top of frame)
- Floor pan (minimum 20" in drivers seat area).
- Extra main hoop, headrest bar (optional)
- Cross bar recommended height 20" (for shoulder harness)
- Roof hoop to fit roof side to side (minimum length 34")
- Roll cage width (same as stock frame width)
- Window opening (Minimum height 15")

## Bodies

Production passenger car, stock or after market template/straight-up style steel or Aluminum body panels for fenders, quarter panels and trunk. **Plastic front fenders allowed.** NO Wedge or Late Model type bodies. Hood must be steel, aluminum or fiberglass and the back of the hood must be sealed down completely. Absolutely no air induction of any type allowed. **YOU MUST HAVE HOOD TO START RACE.** Door panels must be stock, sheet metal or aluminum. No door handles, locks, moldings, factory plastic or chrome accent pieces left on the stock panels. No fins, lips, rudders or other aerodynamic devices allowed. Factory or aftermarket plastic noses are legal. Rear of car must be completely enclosed, fender-to-fender from the trunk lid down. With a cover that is a minimum of 20" high. Nose of car must look stock appearing and neat looking – no wedge type or late model noses. Flat roofs prohibited, roof must retain stock contours. No holes in hood or hood scoops. Hood pins to be used in hood and trunk. Stainless steel windshield screen must be no less than .063" for mesh larger than 1/2" or no less than .035" for 1/2" or smaller mesh (no larger than 1" mesh screen allowed), to cover entire opening with three upright braces tip to bottom of 3/8" or larger solid rod.

Spoiler allowed on rear of trunk lid not to exceed **6" in surface height. Rear spoiler to be 60 1/2" wide at widest point, no sideboards or forward braces. No rear window for safety reasons.** Two and one half inch (2 1/2) non-functional hood scoop allowed, no holes in hood or hood scoop allowed. **YOUR CAR MUST LOOK STOCK TO RACE!**



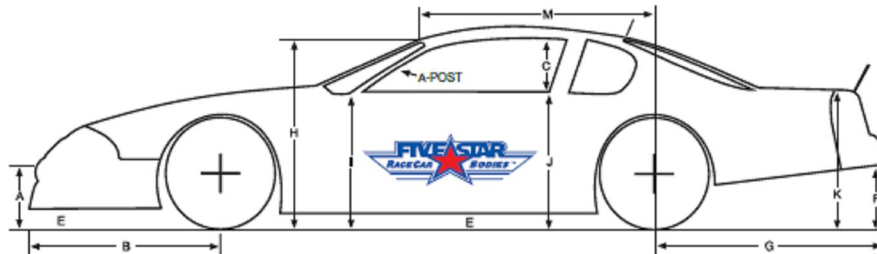
Body parts must be neat and well painted. Car numbers must be painted a contrasting color. Numbers must be painted on both sides and roof to face grandstand numbers must be at least **18" high and 2" wide. Numbers of 6" or higher must be placed on the front and rear of the car to aid in line-ups.**

The car at its widest point, including rub rails, may not exceed 78"

Interior sheet metals to cover all openings, front, rear and side. Tapered floor from driver to right side can be any style as long as no higher than cross brace. Floor plate under driver of 1/8" steel, 20" wide and length of driver

# DIRT GRAND NATIONAL IMPALA - GRAND PRIX - FUSION - CHARGER - CAMRY

*Fits a metric chassis that is commonly used for dirt sportsman applications, also known as Grand Nationals.  
Designed to meet a 51" roof height and 108" wheelbase. 60" tread width with 10" tires. 62" tread width with 8" tires.*



## GUIDELINE DIMENSION (INCHES)

A	NOSE HEIGHT ①	19 ¼
B	FRONT OVERHANG (MAXIMUM, ON CENTERLINE)	46
C	SIDE WINDOW OPENING (MINIMUM)	15 ¼
E	SIDE PANEL CLEARANCE (TYPICAL)	8
F	BUMPER COVER HEIGHT (MAXIMUM)	16
G	REAR OVERHANG ②	47
H	ROOF HEIGHT (MINIMUM) ③	51
I	FENDER HEIGHT (AT REAR)	35
J	DOOR HEIGHT (AT REAR)	35 ¼
K	QUARTER PANEL HEIGHT (AT REAR)	35 ½
M	FRONT OF ROOF TO CENTER OF REAR AXLE	60 ½

- ① Measured from ground to top of bumper line  
 ② Base of spoiler at centerline to axle centerline  
 ③ Measured 10 inches back from windshield (on centerline)

## Engines

**Sealed engines are only honored at track they are sealed at and may be required to be unsealed for inspection at other tracks.**

American made production V-8 engine blocks only. Must be production cast iron block with standard external measurements in all respects with the exception of the permissible .060 over bore maximum. No aluminum, Bowtie, Rocket, SVO, 'X', or 'R' blocks allowed. No removing of **casting** numbers. No grinding or lightening.

Aftermarket crankshafts allowed and cannot weigh less than 48 pounds. Must have stock stroke for the block being used, and must remain unaltered except for the balancing. No lightweight, life edge, undercut counter weights or scalping allowed.

### Rods

Forged magnetic steel connecting rods only. Rods must remain OEM stock length for the block being used. Maximum length of rod to be 5.7, Chevy 400 may use 5.7 rod. H-Beam rods allowed NO titanium or aluminum rods. Through bolts or caps screws allowed.

### Pistons

Any flat top or reverse dome piston may be used as long as it has the stock wrist pin height for the engine being used (except 400 Chevy). Valve relief may be cut into the piston. No portion of the piston may protrude above the top of the block.

### Camshaft

Any Hydraulic or flat tappet steel camshaft with a maximum of .500 lift measured at the retainer. Stock diameter tappets only. No mushroom or roller tappets allowed. No stud girdles or rev kits. Standard timing chain only - no gear drive or belt drives will be allowed. **Roller rockers and roller tipped rockers allowed. No shaft rockers.**

### Cylinder Heads

**Only stock, cast iron head or World Products SR Torque #4266B, #4267B, 4360 or 4361. No Bowtie, Vortec, angle plug, SVO, W2, GT 40 or fuel injection type cylinder heads allowed.** Only two valves and one spark plug

per cylinder. No titanium parts in the valve train allowed. Intake and exhaust ports must be in the original "as cast" configuration. Any evidence of any sanding, polishing, relieving, grinding, porting, chemical treating, abrasive blasting, alteration to the original form or the addition of material to the ports or combustion chambers is strictly forbidden. No external sanding, grinding or removal of **casting** numbers or symbols. Valves must be stock production size and in stock location. Small block Chevy maximum valve size is 2.02" intake and 1.60" exhaust, measured across the face of the valve. Stock production valve spring diameter for heads used only, no beehive springs allowed. Screw in studs and guide plates allowed. **Minor relieving for push rod clearance allowed.** No chemical or ceramic work allowed in internal areas of intake or heads.

### **Optional Engine Configuration**

**a. 062 & 906 Vortec Heads are allowed (valve size must remain stock) must be run with Edelbrock 7116 Alum intake & Holly 4412 Carb**

### **Oil System**

Oil pump must remain in stock location. No dry sumps or external oil pumps allowed. After market oil pans and breathers are allowed. Oil cooler, if used, to be in engine compartment only. Oil accumulators (Accusump's) may not be located in the drivers' compartment. 1" (one inch) inspection hole in oil pan is recommended for viewing crankshaft markings.

### **Intakes**

Stock production cast iron intakes on engines over 365 cubic inch. Following aluminum intakes numbers allowed on 365 cubic inch or less - GM: Victor Jr. 2975 or 2972 and 2101, Weiland 7546 or 7547. Ford: 2981 or 2760 and 2665 or 2750, Cleveland 7516 or 7517. AMC: 2930 or 2035. Chrysler: 2915 or 2176. Edelbrock: 7101 and 7501. After market or stock intakes to remain untouched. NO Marine type intakes.

### **Exhaust**

Stock cast iron exhausts manifolds or headers okay. No 180-degree headers or step headers. Exhaust must exit under car, behind driver and be angled down. Mufflers are mandatory and car must pass noise level test (95 decibel at 100 feet outside of track).

### **Ignition**

Factory type ignition, no Multi-spark discharge or mags. Rev limiters allowed one chip system only. HEI type distributors must have the coil mounted in the distributor cap.

### **Carburetors**

One (two or four barrel) carburetor only with maximum spacer height of 1 ¼". Only 2 gaskets (1 per side) with a maximum thickness of 0.065 inches may be used on the adapter plate. Two carburetor return springs, mounted in two directions, required. No throttle cables allowed must be mechanical linkage. Toe strap on gas pedal required

**Optional 141 Vortec Head engine, 4412 carburetor rule.**

**A. Carburetor Body - No polishing, grinding, or drilling permitted. Factory type air bleeds only. Screw in air bleeds are prohibited.**

**B. Choke - The choke may be removed.**

**C. Choke Horn - The choke horn may not be removed.**

**D. Boosters - The boosters and booster location may not be changed. The size or shape must not be altered. Boosters may not be tapered. Height must remain standard.**

**E. Venturi - Venturi area must not be altered. Casting ring must remain.**

**F. Base Plate – Base plate must not be altered.**

**G. Butterflies - Butterflies must not be thinned or tapered. Retaining screws may not be altered.**

**H. Throttle Shafts - Throttle shafts must not be thinned.**

**I. Metering Block - Only metering block 134-137 is permitted. Adjustable metering blocks are prohibited. Metering block must not be altered.**

### **Cooling System**

Stock cast iron or aftermarket aluminum water pump allowed. One radiator only and must be in front of engine. Metal shroud must cover top 180 degrees of fan. 2 quart overflow can mandatory. No devices that spray liquid onto radiator. **ABSOLUTELY NO ANTIFREEZE!**

### **Starter**

Mini-Starter allowed. No reverse mounted starter. Must be able to start car

### **Engine Location**

Engine must be centered between frame rails. Engine set-back to be measured as 33 ½" from top of steering box mounting bolt to rear of engine and 15 ½" from steering box mounting bolt to #1 cylinder spark plug. Crankshaft centerline can be no less than 7 ½" from bottom of front cross member. Non Chevy motor setbacks to be determined by the difference between the measurement from the center of top steering box mounting bolt on the frame to the back of the engine minus the measurement from the back of the engine to the center of #1 factory spark plug hole.  
**NO TRACTION CONTROL DEVICES ALLOWED!**

### Transmission and Drive Train

3 or 4 speed unaltered U.S. manufactured passenger car or light truck transmissions only  
Aftermarket racing transmissions, (Bert, Brinn, Falcon, etc.) or converterless transmissions are prohibited  
Steel blow proof bell housing only. Upper 270 degrees of bell housing must remain intact.  
Flywheel to be stock or aftermarket steel or aluminum unaltered except for balancing and resurfacing.  
No cut down stock flywheels allowed.  
**7 ¼" or 10 ½" diameter, steel or aluminum closed or open style, single or multi disc clutches allowed. No lightweight, spoke type flex plates allowed. OEM or OEM replacement flex plates only. V-drive clutch allowed.**  
Drive shaft to be magnetic steel, minimum 2 1/2" O.D., painted white with car # marked on it. Steel safety loop of minimum 1" x 1/8" thickness located within 1 foot of front U-joint.  
Stock rear end for frame used or Ford 9" floater recommended. Any combination okay as long as parts is steel. No aluminum parts except drive plates and spools. No offset. Drive flanges to be of equal distance on both sides of frame. No independent rear end (Corvette, Jaguar). Rear trailing arms must remain mounted in stock frame locations, NO EXCEPTIONS! One hole upper and lower for each trailing arm mount location, NO EXCEPTIONS! No aftermarket limited-slip or ratchet style rear ends (Ex: Gold Track, True Track, or Gleason, etc....).  
No gun-drilled axles.

### Suspensions and Steering

Steering wheel to be quick-release style.  
Stock steering box and linkage only. Steering quickener allowed. Steering shaft must have 2 u-joints or be collapsible style.  
**Reference numbers to match dimensions are Moog part# D909 for center link, ES2034RL for inner tie rod ends, ES2033RL for outer tie rod ends, and K6187 for the idler arm.**

Stock metric lower "A" arms only in stock locations, NO EXCEPTIONS! Stock unaltered metric spindles and rotors except for wheel bolt pattern and hole for outer tie-rod end. No aftermarket or dropped spindles. **One steel unaltered shock per wheel at any mounting position. No externally adjustable, coil over, air, or remote reservoir shocks. No Schroeder or gas refill ports. No coil over eliminators.** A Coleman hub may be used on the front only.

All A-frame, trailing arms, steering components and suspension mountings must remain stock for frame in factory frame position. Outer tie-rod ends may be replaced by 0.625 or larger steel heim joint with a solid (no seam) steel adjuster sleeves and jam nut only. Rear trailing arms may be aftermarket, but must be stock length and use bushings. No heims, mono balls or adjustable. Length measured center-to-center, upper 11-1/8", lower 19-1/4". Must be same measurement side to side.

ALL BALL JOINTS MUST BE STOCK FOR FRAME USED, NO EXCEPTIONS! If a metric frame is used must use stock dimension metric ball joints only, NO EXCEPTIONS!

**Reference numbers to match dimensions are Moog part# K5208 for upper ball joint and K6145 for lower ball joint.**

Any OEM type sway bar permitted.

Front upper control arm may be replaced with complete steel tubular drop in replacement, one-piece control arm of stock length (8"), plus or minus ½" of stock length using stock ball joints in stock location, NO EXCEPTIONS! No cutouts or modifications allowed. **No alum components allowed, no adjustable cross shafts and slotting allowed, if slotted upper A arms are used you must weld a washer on the slot as not to be able to adjust control arm. No bearings, bushings or heim joints allowed.**

No aluminum components allowed except for steering quickener.

Rubber Bushing Replacement – Stock or plastic and greasable bushings allowed. **No offset or bearing type (mono-ball) allowed.**

### Brakes

Four-wheel foot operated hydraulic brakes in working order. Dual master cylinder allowed. Limiting or proportioning valves okay. GM Metric frames must use unaltered GM Metric calipers only. No aluminum, aftermarket caliper replacements.

### **Fuel and Tanks**

- A. Pump gas only, E85 allowed, no alcohol or additives.
- B. Approved fuel cell to be enclosed in 22-gauge sheet metal with 2 straps in both directions. Straps to be 1" x 1/8" steel. Ground clearance of 10". Fuel cell protection bar on the bottom (as low as the fuel cell). Minimum of 1 1/2" x .065 wall square tubing fuel cell hoop with two or more braces to frame (One on each side of fuel cell). Fuel cell to be filled from top and have approved cap, no bottom draw fuel cell, outlet must be on top. No fuel lines in driver area.
- C. Stock style fuel pump in stock location. No electric or belt driven pumps.
- D. No bottom draw fuel cells. Outlet must be on top.
- E. The fuel cell breather or vent must have a one-way check valve to prevent spillage in case of a wreck or rollover and below bottom of tank.

### **Bumpers and Protection Bars**

Stock bumpers may be reinforced; ends must be strapped to fenders. Must have both bumpers to race. If rear bumper falls off during competition, protection bars must protect the fuel cell. Radiator protection bar may be no higher than the front of the hood or exceed 8" above the frame rail and no wider than the frame rails and may not extend beyond the front of the bumper. Trunk protection bar no higher than the rear of the trunk lid. Protection bars to be 1 3/4" x .095" wall round tubing or smaller. Side protection bars to be no larger than 1" x .095" wall square tubing with the ends capped at 45-degree angle. ***On doors only, may run lexan rub rails no more than 6" tall and protruding out 1" from door.***

All cars must have a loop, hook or other provision in the centerline of the front and back, behind the bumper line for the wrecker to hook on to.

### **Wheels and Tires**

- A. Racing steel wheels of 8" maximum width, minimum weight of 19lbs. NO wide 5 wheels. Bead locks are allowed ***on RIGHT SIDE OF CAR ONLY!***
- B. 1" hex steel lug nut mandatory. Studs must pass through lug nut completely.
- C. Hoosier "E-MOD RC-4" tires only. No grooving, siping, or softening allowed. Tire grinding allowed with a 16 grit or finer fiber disc. (NO steel discs).

**FOAM TYPE OR SOFT PLASTIC MUD PLUG ALLOWED ON RIGHT SIDE TIRES ONLY**

### **Electrical**

12-volt electrical system only, one 12-volt battery only, which must be located behind driver area between frame rails. Battery must be no lower than frame rail and securely fastened. An On/Off and start switch to be clearly marked in driver area and easily reached by driver. A second battery kill switch must be located behind driver easily reached by safety crew and KILL ALL POWER TO CAR!

### **Weights**

Minimum car weight 3000 lb. Weights to be bolted on securely, painted white with car number and division on each weight. No weights in driver's compartment allowed. ***Loss of any weight during a race will result in a money penalty and disqualification!***

### **Mirrors**

Absolutely no mirrors allowed

### **IMCA Stock Car crossover rule**

IMCA Stock Cars must run their rules.

### **(Oshkosh)Transponder Location**

See general rules for ALL transponder information