

# ***2018 Charger Division Rules***

## **COMPETING MODELS**

1970-2016 rear wheel drive cars with a minimum wheelbase of 104" wheelbase.

## **CAR BODIES**

1. All cars must have a minimum of (2) doors, (2) fenders, (2) rear quarter panels, deck lid, back bumper cover, roof and hood. Open wheel type bodies allowed with track tech approval.
2. All bodies must meet roof and spoiler height template specifications.
3. All bodies must be speedway approved. Roof height is 48" from 10 inches back from center of windshield.
4. Rocker panels may be fabricated; rocker panels, body height and nose must maintain 4" ground clearance.
5. Front and rear windshields must be full Lexan. Clear Lexan or Plexiglas may be installed in the rear quarter windows. No side windows.
6. Speedway approved window net must be installed in the driver's side window opening.
7. Max overall spoiler height is 40".
8. Rear spoiler 5" high with maximum 60" width (max 300 square inches.)
9. Wrecker hookup required front and rear of car.

## **FRAME**

1. Stock OEM front sub frame with tubing frame connector allowed with complete stock floor plan 3050 lbs. 55% max left side weight.
2. OEM stock clip must have factory OEM mountings points for weight break. Rear trailing arm mounts may be fabricated. Can be tubed from firewall back 3100 lbs. 55% max left side weight.

3. Full tube chassis allowed, total weight 3150 lbs. 55% max left side weight.
4. A steel firewall must separate the driver from the engine compartment and fuel tank
5. Frame rails minimum 2"x3".
6. Weight boxes are legal
7. Chassis rails must maintain 4 min ground clearance.

## **ROLL CAGE**

1. A complete ECMS approved roll cage.
2. Roll cage must be constructed of roll bar tubing with minimum outside diameter of 1 ½" x .083 wall thickness.
3. Roll cage must be centered on the frame, perimeter style, and no offset chassis.
4. Main roll cage uprights must be on top of outside frame rails.
5. Full cage is required with four uprights and four top bars.
6. Roll bars may go through front and rear firewalls.
7. Minimum of four bars in driver's and passenger's door required.
8. All bars within driver's reach must be padded.

## **SUSPENSION**

1. Adjustable cups allowed on front and rear.
2. Spring spacers or screw jacks may be used on front and rear.
3. OEM type steering box. Aftermarket tie rods, centerlink, idler and pitman arm are allowed.
4. Lower A-frames must be OEM design. Lower A-frames must be same length.
5. Upper A-frames may be fabricated.
6. Front sway bar may be OEM or aftermarket. Mounting points may be aftermarket. Sway bar size can be no bigger than 1 ¼ with 1 ¼ ends.
7. Leaf spring and/or coil spring suspension allowed.
8. Slider allowed.
9. Steel rear lower trailing arms required.

10. A fabricated metal top link and track bar allowed.
11. Damper shocks may be used.
12. Rubber brushing, metal brushing, Teflon brushing or heim joints are allowed.
13. Lowering blocks and trailing arms may be adjustable.
14. Aftermarket or OEM 5x5 design hubs allowed. (All wide five wheels must be approved by Track Official.)
15. No bump stops or travel limits on suspension. No coil binding allowed.

## **REAR END**

1. Rear end may be car, truck, or floater. Quick change allowed (older style no light weight, winters sprinter or tigers.) Tubes and axels must be steel. Any ratio. No low drag or polished parts allowed. Newer style quick change permitted with 25 lbs. weight penalty added.
2. Detroit locker or locked rear end only. No Gleason or Quicktrack.
3. No Cambered rear end housings. +/- .4 grace.

## **SPRING AND SHOCKS**

1. Tie rod spherical end shocks allowed. OEM aftermarket struts allowed. Coilovers are allowed.
2. Aftermarket metal body shocks allowed, but no canister shocks are allowed. Coil springs minimum diameter 5"
3. No composite leaf springs. All cars must compete with type springs from OEM. If coil, it must be coil. If leaf, it must be leaf. Coil over eliminator allowed only on rear.

## **BRAKES**

1. Single piston steel OEM stock brake calipers required. The brakes on all four wheels must work.
2. Steel disc brakes may be used on front and rear.
3. Aftermarket brake and clutch pedal allowed.

4. Dual master cylinder allowed. Any type brake bias adjusters allowed.

## **WHEELBASE AND TREADWIDTH**

1. 104" minimum wheelbase.
2. Cars must not exceed the maximum allowable tread width of 66" plus or minus ½"
3. Tread width must be obtained through wheel spacers and rim offset only. Not suspension modifications.

## **ENGINE A CRATE ENGINE chev#88958602, chev#88958603**

1. This crate engine must remain within factory spec and as supplied from factory manufacture. These engines are subject to teardown procedures and legalities determined by tech.
2. Crate engines are designed to cue the cost of racing. Anyone found tampering with these engines will be fined for each offense and loss of points.
3. GM 602 and 603 crate engines may run a 390 CFM carb 4bbl per NWAAS Late Model Stock Car guidelines with 1" spacer (Single Open Hole or Four Holes.)
4. Ford 347JR crate engine may run a 390 CFM carburetor 4bbl per NWAAS Late Model Stock Car guidelines with no spacer.

## **ENGINE B OEM PRODUCTION**

1. Only stock production engines allowed. Chevrolet 362 cubic inch maximum, Ford 358 cubic inch, Chrysler 365 cubic inch.
2. No polishing or coating inside of block.
3. Aftermarket stock length replacement rods allowed.
4. Only solid steel connecting rods permitted. No polishing or machine work will be permitted. Replacement rods may not be lighter than OEM stock rods.
5. Connecting rods must be stock length for make and model of engine used, for example, Chevrolet 350- 5.7 rods.
6. Flat top or dish 3 ring pistons permitted. Piston must not extend above top block.

7. Crank shaft with stock stroke must be retained. Minimum weight 50 lbs.
8. Crankshaft must not be knife-edged. No excessive machining or grinding other than balancing. No drilled rod or main journals. Subject to template inspection by Tech Official.
9. Wet sump oil system only.
10. Enlarged oil pan allowed. Kick outs will not be permitted between the bolt holes' flange and the top of the added sump. Oil pan 4" minimum ground clearance.
11. No electric fuel pumps allowed.
12. After market valve covers allowed.
13. After market pulleys allowed.

### **ENGINE B OEM PRODUCTION HEADS**

1. Stock OEM production steel heads only.
2. World Products Stock Replacement SR#043600 allowed (EQ Stock replacement is allowed) with a 50 lb. weight penalty (350 Carb.)
3. NO modifications, no porting, no polishing, and no grinding of any kind.
4. 3 angle valve job okay as per Speedway rule. One cut below valve seat, to bottom of valve guide. Do not radius or blend bottom of cut below valve seat.
5. Chevrolet 58cc minimum; Ford (Clev) 52cc; Ford (Win) 56cc; Chrysler 62cc minimum. Steel valves required. Valve size minimum:
  - a. Chevrolet 2.02 intake 1.65 exhaust
  - b. Ford Cleveland 2.05 intake 1.65 exhaust
  - c. Ford Windsor 1.89 intake 1.60 exhaust
  - d. Chrysler 1.90 intake 1.60 exhaust

### **ENGINE B OEM PRODUCTION CAM SHAFT**

1. Hydraulic or flat tappet cam and OEM diameter lifters with no maximum lift.
2. Any steel type timing chain allowed.
3. Steel retainers required on valve springs.
4. Screw in studs and guide plates permitted with any ratio roller rocker arms allowed.
5. Stud girdles are permitted. Poly lock allowed.
6. 4-7 Swap cam shafts will not be allowed.

## **ENGINE B OEM PRODUCTION INTAKE AND SPACER**

1. Cast iron two-barrel intake or Edelbrock performer aluminum intakes. Chevrolet #2101/2116 Ford Windsor #2181, Cleveland #2665, #2750 and Chrysler #2176 or P#4532852. No RPM versions.
2. No porting, polishing or grinding will be permitted. Do not touch it.
3. Holley #7448 spacer a maximum of  $\frac{3}{4}$ " metal spacer with 2 holes (max 1  $\frac{1}{2}$  1.502) centered in spacer with a straight cut. No Bevels. Spacer gaskets .065 max thickness.
4. Holley #4412 spacer a maximum  $\frac{3}{4}$ " metal spacer with 2 holes (max 1.690) centered in spacer with a straight cut. No Bevels. Spacer gasket .065 max thickness.
5. All carburetors and spacer plates must meet speedway specifications.

## **ENGINE B OEM PRODUCTION CARBURETOR**

1. Holley #4412 2bbl carburetor "500" allowed on all engines with stock OEM straight plugged heads and built by NWAAS built engine guidelines for bottom ends.
  - a. All other built engines must run a Holley 2300 2bbl carburetor model #7448 "350" per LLM guidelines.

## **ENGINE LOCATION**

1. Engines may be interchanged from one body manufacturer to another.
2. Engine must be centered in chassis. #1 spark plug in line with upper ball joint.
3. Minimum crankshaft height is 12" from the center of crank pulley to the ground.

## **AIR CLEANER SPECIFICATIONS**

1. Round air cleaner element minimum of 12 inches; maximum of 17 inches.
2. Element must be minimum of 1 ½ inches and a maximum of 4 inches in height.
3. Dry type paper element only. No cold air boxes or cowl induction allowed.
4. No tubes, funnels or anything which may control the flow of air are permitted.
5. Air cleaner base must not be above choke horn.

## **TRANSMISSION AND FLYWHEEL ASSEMBLY**

1. OEM standard production automatic, or manual transmissions only.
2. Heavy duty OEM steel clutch permitted.
3. A 7 ¼" and 5 ½" clutch will be allowed with a 25lb weight penalty.
4. Hydraulic clutch control permitted.
5. Must have steel bell housing that is speedway approved.
6. Driveshaft must be of magnetic steel only (2 ¾ min dia.) driveshaft must be painted white with two safety loops attached to the bottom of the car.

## **EXHAUST**

1. Headers (4 into 1) will be permitted. No stepped headers. No 180, or crossover allowed.
2. Cast iron manifolds permitted.
3. All LH exhausted must exit behind the driver.

## **COOLING SYSTEM**

1. Aluminum radiators permitted. Any radiator allowed.
2. Overflow hose recommended.
3. Antifreeze is not permitted.

## **ELECTRICAL SYSTEM**

1. Electronic or point type OEM ignition allowed.
2. Aftermarket distributors permitted.
3. Only 1 racing coil permitted.
4. Only one 12-volt battery permitted.
5. MSD ignition box allowed. No adjustable timing controls.
6. No open ended wiring in driver's compartment.
7. Any type traction devices are not allowed. No computerized systems are allowed.
8. All ignition systems must be acceptable to Speedway Officials.

## **FUEL AND FUEL SYSTEMS**

1. Track fuel required. Must purchase fuel from track. No other mixtures of any kind.
2. All fuel must pass ECMS fuel specifications. Fuel must be same color and pass a specific gravity test.
3. Fuel cells are recommended. Must be securely strapped down with no less than 1/8" steel straps. Fuel cell must be vented high and to the left side.
4. The maximum capacity allowed is 22 gallons.
5. Fuel cells must have 10" minimum ground clearance.

## **WHEELS AND TIRES**

1. Maximum width 10" on all 4 wheels. 15" steel wheels only. No 2 in back space allowed.
2. Air bleeders will not be permitted. No chemical tire treatments allowed.
3. Hoosier F-45 Scuff's for all events. All ECMS events, tires will be purchased from the tire building on race day. Drivers/Tire Specialist will purchase tires and will draw a pill to receive their stack for the event.



4. All tires are graded and stacked by an East Carolina Motor Speedway Park Official.
5. Any car tires from any source other than the speedway tire building will be disqualified.

## **WEIGHT**

1. Weight of car must be on back of hood on driver's side.
2. All cars will be weighed with driver in a driving position.
3. All lead weight must be added to chassis securely.
4. Cars may gas up after race.
5. No tungsten allowed.
6. Lightweight quick change 25lbs added. Older design no weight penalty.

## **AMENDMENTS**

1. These rules are subject to amendments for competition when ample notice has been given by the speedway.
2. Any car that does not conform to the rules above may be allowed to compete with a weight and/or restrictor plate at the tech committee's discretion.
3. Speedway Officials may use professional judgment for any infractions for a competitive race program.
4. Coil over chassis permitted as long as it fits shock and sway bar rule for this division. Any chassis or suspension to have a clear advantage are subject to weight additions per director's discretion.