

# 2008 LIMITED STOCK DIVISION

(Formerly Charger and All American Divisions)

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## **Section 1. General**

- 1.1 Any American made sedan is eligible. No station wagons, 4 wheel drives, or Jeep type vehicles.
- 1.2 Minimum stock wheel base allowed 104".
- 1.3 Car must have a towing hook in the front and rear of car or chains bolted to frame. Must be easily accessible to the tow truck operator.
- 1.4 Body & engine must be same manufacturer. GM to GM, Ford to Ford, Chrysler to Chrysler.

# Section 2. Safety

2.1 All safety items are subject to Technical Inspectors approval.

# Section 3. Body

- 3.1 All doors must be welded or bolted shut.
- 3.2 All glass must be removed. Lexan Windscreen or three (3) 1/4" bars covered in wire or lexan.
- 3.3 All molding, lights and light lenses must be removed.
- Rear seat cushions must be removed and any resulting holes must be covered with sheet metal. .22 gauge sheet metal recommended.
- 3.5 Complete bumper to bumper steel unibody must be retained.
- 3.6 May tie front and rear unibody rails together.
- 3.7 Stock steel unaltered floor pans, firewalls, and trunk floor must be retained.
- 3.8 Wheel openings may be cut and rolled-in for tire clearance.
- 3.9 Front wheel wells may be removed.
- 3.10 Cars must be strictly stock. No chopping, channeling, shortening or cutting allowed.
- 3.11 Hood and deck lid bracing may be removed.
- 3.12 Hood and trunk must be secured with positive type fasteners.
- 3.13 Mirror(s) must be mounted inside drivers compartment.
- 3.14 Rub rails are permitted between front and rear fender wells and must not protrude from body more than 1 inch and not wider than 2 inches. Must be securely fastened, minimum of 3/8" bolts.
- 3.15 After Market bumper covers and hoods permitted.
- 3.16 Body subject to Tech Inspector's approval.
- 3.17 New Bodies may be used on old chassis as long as length and width are accommodating. Must be tech approved.

## Section 4. Frame

4.1 Completely stock.

# Section 5. Roll Cage

- 5.1 Full 8 point roll cage required.
- 5.2 Must have at least 2 bars from top of cage to rear frame rails.

- 5.3 A roll cage with a minimum of four door bars on drivers side and two door bars on passenger side is mandatory.
- 5.4 May not reinforce the body or alter the geometry of the car.
- 5.5 Side bars on driver's side can extend into the door opening, up to four bars are recommended.
- 5.6 Bars must be welded.
- 5.7 Minimum of two bars must extend back through rear firewall.

# Section 6. Firewalls

Front and rear must be stock with all holes patched with sheet metal to seal the driver's compartment.

# Section 7. Tires / Wheels

- 7.1 Hoosier 500 only.
- 7.2 Maximum 8" wheel. All offset must be the same. All offsets must allow front and rear to track the same. Offset subject to tech inspection and approval.
- 7.3 Mag wheels are not allowed.
- 7.4 Must use 5 oversized lug nuts and studs per wheel.
- 7.5 Wheels may be reinforced to prevent loss during racing.
- 7.6 Plating a stock wheel is legal, steel wagon wheel or steel slot wheel is considered a reinforced wheel without any modifications and is legal.
- 7.7 Spacer used in rear for frame to tire clearance only.

# Section 8. Brakes

- 8.1 Four-wheel hydraulic brakes.
- 8.2 Must be in good working order at all times.
- 8.3 No cut-off valves.
- 8.4 No adjustable proportioning valves allowed.
- 8.5 No rear disc brakes permitted.

# Section 9. Suspension

- 9.1 Front and rear springs may be aftermarket parts.
- 9.2 Minimal modifications allowed to install springs: such as cutting of spring bucket area.
- 9.3 Spacers maybe used.
- 9.4 Shocks mounted in stock location.
- 9.5 No coil overs, HEIM end shocks, or air shocks.
- 9.6 Modifications are not allowed to stock upper or lower control arms. Do not change factory location of mounts.
- 9.7 No steel control arm bushing allowed. May use urethane replacement bushings.
- 9.8 All steering arms and parts must be factory or suitable replacement. (TRW, Moog, Dana, McQuay Norris.) No racing adjustable parts allowed.

- 9.9 No modifications to lower rear factory, trailing arms. Must be stock, equal length bars. Top link can be cut to correct the pinion angle.
- 9.10 Factory 4 link must use all trailing arms and bushings must be in good repair.
- 9.11 No aftermarket panhard bar.

## Section 10. Clutch / Transmission

- 10.1 Stock transmission and clutch only.
- 10.2 Automatic transmission must have stock torque converter (no lock up converter). 10" converter permitted.
- 10.3 Safety strap under front half of drive shaft required.
- 10.4 Stock flywheel permitted. Corvette and SVO flywheels permitted.
- 10.5 Any stock 3 or 4 speed transmission with reverse and all working gears.
- 10.6 Automatic transmission cooler is permitted. Must NOT be in drivers compartment.
- 10.7 Stock steel drive shafts only.
- 10.8 Driveshaft must be painted white.
- 10.9 May use hydraulic throw-out-bearing and master cylinder.
- 10.10 A 360 degree blow proof bell housing is mandatory. Must have 3" inspection hole in bottom to inspect clutch. Auto transmission must have SFI approved shield or blanket.

## Section 11. Rearend

11.1 Locked rears are permitted but must match make. GM to GM, Ford to Ford, Chrysler to Chrysler.

# Section 12. Battery

- 12.1 Batteries may be moved to the inside of the car but must be in a covered box.
- 12.2 Batteries not permitted in the trunk.
- 12.3 All batteries must be enclosed in safety box. Subject to tech approval.

# Section 13. Cooling Systems

- 13.1 One radiator, stock type only under hood in stock location.
- 13.2 Stock type Aluminum or racing radiator allowed.
- 13.3 No antifreeze allowed.

# Section 14. Fuel System

- 14.1 Gasoline only.
- 14.2 Fuel cells must be used and will be checked for condition and date of manufacture.
- 14.3 Fuel cells must be vented to the outside of the car.
- 14.4 Fuel cells may be mounted 3 inches lower than frame rails.
- 14.5 Fuel caps must be secured to fuel cell.
- 14.6 Fuel line may not exit bottom of fuel cell.

There are two engine packages to choose from, either Section 15 or Section 16. You can NOT mix the two, must choose one or the other.

# <u>Section 15. Engine: Formerly Charger Division Engine Package</u>

- 15.1 All casting numbers must be unaltered.
- 15.2 Must be in stock location.

#### 15.3 Blocks:

- 15.3.1 Cast iron only. NO ALUMINUM.
- 15.3.2 Production only. (No bowtie, SVO, etc.).
- 15.3.3 A maximum overbore allowed .060
- 15.3.4 Maximum Cubic Inch Displacement: GM 358 cu. in. & Ford 360 cu. in., Chrysler 370 cu. in.
- 15.3.5 Must pass pump check.

#### 15.4 Cylinder heads: No aftermarket heads allowed.

- 15.4.1 Cast iron only.
- 15.4.2 No GM small block angle plug heads. VORTEC heads permitted.
- 15.4.3 No porting or polishing.
- 15.4.4 GM 62 cc min., Ford 62 cc min.
- 15.4.5 Valve spring diameter limited to original production diameter for head used.
- 15.4.6 Three angle valve job maximum.
- 15.4.7 No titanium valves or exotic metals. Steel or stainless valves only.
- 15.4.8 Stock valve stem diameter.
- 15.4.9 No under-cut valve stems.
- 15.4.10 Stock-type rocker arms. Stock ratio for make: GM 1.5:1, Ford 1.6:1
- 15.4.11 Polylocks are permitted.
- 15.4.12 Stock diameter push rods.
- 15.4.13 No bowl work allowed under valve seat.
- 15.4.14 No porting or machining for gasket matching allowed.
- 15.4.15 One spring per valve allowed.
- 15.4.16 Screw-in-studs & guide plates allowed. NO stud griddles.

#### 15.5 Pistons:

- 15.5.1 Flat top only. 2 or 4 valve relief. Must weigh no less than 530 grams.
- 15.5.2 No Racing pistons.
- 15.5.3 Stock ring width and placement (ringstack).
- 15.5.4 Stock wrist pin diameter. Weight no less than 140 grams.
- 15.5.5 Any means of lightening other than balancing is illegal.

#### 15.6 Crankshaft:

- 15.6.1 Stock production only.
- 15.6.2 Stock stroke only.
- 15.6.3 Any means of lightening other than balancing is illegal.

## 15.7 Connecting rods:

- 15.7.1 Must be "I" beam rod. Press pin standard diameter thru bolt rod or cap screw rods. Must weigh no less than 530 grams.
- 15.7.2 Stock length only.
- 15.7.3 No polishing.
- 15.7.4 Any means of lightening other than balancing is illegal.
- 15.7.5 After market rod bolts permitted.

#### 15.8 Camshaft / Lifters:

- 15.8.1 Hydraulic only. Max lift .480 (lobe lift x rocker ratio.) (.320 at cam shaft)
- 15.8.2 No hydraulic rollers.
- 15.8.3 No gear drives.
- 15.8.4 Stock lifter diameter only.
- 15.8.5 No variable duration / bleed-down type lifters.
- 15.8.6 Fire order on engine must remain traditional.

#### 15.9 Intake Manifold / Carburetor:

- 15.9.1 Must be cast iron 2 barrel OEM
- 15.9.2 No TBI manifolds.
- 15.9.3 Holley model 7448, 350 cfm 2 barrel ONLY.
- 15.9.4 No modifications, polishing, grinding, porting or cutting allowed with the exception of choke plate removal.
- 15.9.5 May use two gaskets, maximum thickness .080" each.
- 15.9.6 1" spacer or adapter maximum. NO EXCEPTIONS. NO WOOD SPACERS.
- 15.9.7 No electric fuel pumps.
- 15.9.8 Stock mechanical fuel pumps only.

#### **15.10** Ignition:

- 15.10.1 Any stock OEM distributor allowed.
- 15.10.2 Single points.
- 15.10.3 Any stock OEM coil allowed. Must fit in stock cap.
- 15.10.4 Stock HEI systems permitted. No MSD modules.

#### 15.11 Exhaust:

15.11.1 Stock cast iron manifolds or aftermarket headers permitted. NO 180 degree, crossover or zoomie's allowed.

- 15.11.2 Must exit behind driver.
- 15.11.3 Exhaust pipe diameter 6" maximum I.D., must be parallel to track.
- 15.11.4 Exhaust must be securely bolted. No band clamps permitted.
- 15.11.5 Loss of exhaust is grounds for disqualification.

### 15.12 Engine Location / Oil Pans:

- 15.12.1 Stock location only.
- 15.12.2 After-market oil pans allowed. Must have 1" inspection plug to inspect cranks and rods. Call for location.
- 15.12.3 Chains over engine mounts are permitted.

# <u>Section 16. Engine Package 2: Formerly All Amercican Engine Package.</u>

- 16.1 The engine must be stock for the manufacturer, GM to GM, Ford to Ford, Chrysler to Chrysler. Stock or OEM replacement parts only.
- 16.2 All Engines: In stock location. No aluminum blocks, heads, etc. All casting numbers must be unaltered.

#### 16.3 Blocks:

- 15.3.1 Cast iron only.
- 16.3.1 Production only. (No bowtie, SVO, etc.). Must be of OEM.
- 16.3.2 A maximum overbore allowed .040
- 16.3.3 Max cubic inch displacement GM: 350+40, Ford: 351+40, Chrysler: 360+40.

#### 16.4 Cylinder heads:

- 16.4.1 Cast iron only.
- 16.4.2 Production only. Must be OEM. No bowtie or GM Performance parts, SVO Performance parts, MOPAR Performance parts.
- 16.4.3 No GM small block angle plug heads. VORTEC head permitted. (Please contact Technical Director Ken Roberson before installing VORTEC Heads @ (804) 758-9950).
- 16.4.4 No porting or polishing.
- 16.4.5 Minimum clean up permitted. Subject to C.C. inspection.
- 16.4.6 Valve spring diameter limited to original production diameter for head used.
- 16.4.7 Valve sizes limited to original production diameter for head used.
- 16.4.8 Three angle valve job maximum.
- 16.4.9 No titanium valves or exotic metals allowed in valve train. STEEL ONLY.
- 16.4.10 Stock valve length.
- 16.4.11 Stock valve stem diameter.
- 16.4.12 No under-cut valve stems.
- 16.4.13 Stock retainers and keepers.
- 16.4.14 Stock-type rocker arms. Stock ratio only.

- 16.4.15 Stock length and diameter push rods.
- 16.4.16 Screw in study permitted.
- 16.4.17 No bowl work allowed under valve seat.
- 16.4.18 No porting or machining for gasket matching allowed.
- 16.4.19 Only one spring per valve allowed.

#### 16.5 Pistons:

- 16.5.1 Stock OEM flat tops, no dome pistons. 2 or 4 valve relief. 530 grams minimum weight.
- 16.5.2 No Racing pistons.
- 16.5.3 Stock ring width and placement (ringstack).
- 16.5.4 Stock wrist pin. 140 grams minimum weight.
- 16.5.5 Any means of lightening other than balancing is illegal.

#### 16.6 Crankshaft:

- 16.6.1 Stock production only.
- 16.6.2 Stock stroke only.
- 16.6.3 Any means of lightening other than balancing is illegal.
- 16.6.4 No cross drilling.

#### 16.7 Connecting rods:

- 16.7.1 Must be I Beam rod. Press pin standard diameter thru bolt rod or cap screw rods. 530 gram minimum weight.
- 16.7.2 Stock length only.
- 16.7.3 No polishing.
- 16.7.4 Any means of lightening other than balancing is illegal.
- 16.7.5 After market rod bolts permitted.

#### 16.8 Camshaft / Lifters:

- 16.8.1 Hydraulic only.
- 16.8.2 300 Lift allowed at cam shaft with 1.5 stamp rods only.
- 16.8.3 No hydraulic rollers.
- 16.8.4 No gear drives.
- 16.8.5 Stock lifter diameter only.
- 16.8.6 No variable duration / bleed-down type lifters.
- 16.8.7 Traditional fire order only.

#### 16.9 Intake Manifold / Carburetor:

- 16.9.1 Must be cast iron OEM.
- 16.9.2 No TBI manifolds.

- 16.9.3 One 2 bbl carburetor of OEM. Maximum venturi diameter is 1-3/8". Maximum throttle plate diameter is 1-11/16".
- 16.9.4 No modifications, polishing, grinding, porting or cutting allowed with the exception of choke plate removal.
- 16.9.5 Maximum gasket thickness .375".
- 16.9.6 No spacers or adapters.
- 16.9.7 No marine carburetors.
- 16.9.8 No electric fuel pumps.

## 16.10 Ignition:

- 16.10.1 Any stock OEM distributor allowed.
- 16.10.2 No modifications allowed.
- 16.10.3 Single points.
- 16.10.4 Stock coil only.
- 16.10.5 Stock HEI systems permitted.

#### 16.11 Exhaust:

- 16.11.1 Stock cast iron manifolds or aftermarket headers permitted. NO 180 degree, crossover or zoomie's allowed.
- 16.11.2 Must exit behind driver.
- 16.11.3 Exhaust pipe diameter 6" maximum I.D., must be parallel to track.
- 16.11.4 Exhausts must be securely bolted. No ban clamps permitted.
- 16.11.5 Loosing exhaust is grounds for disqualification

#### 16.12 Engine Location / Oil Pans:

- 16.12.1 Stock location only.
- 16.12.2 Chains over engine mounts are permitted.
- 16.12.3 Left turn pan acceptable. Must have 1" inspection plug to inspect cranks and rods. Call for placement.

# Section 17. Weight

- 17.1 Car must weigh 3300 lbs with driver and no added fuel.
- 17.2 Car will be weighed in post-race condition.
- 17.3 The track scales are official.
- 17.4 Failure to meet weight will result in disqualification.
- 17.5 All lead must be properly secured and painted white. (Subject to tech inspection.)
- 17.6 All lead must have car number painted on it. (Subject to tech inspection.)

# Section 18. Protest/Post-Race Inspection

18.1 \$300 for the top half of engine.

- 18.2 \$500 for complete engine.
- 18.3 \$250 for removal of fly wheel/torque converter.
- 18.4 Track does NOT pay for labor or materials associated with teardown for inspections.
- 18.5 Protest must be submitted in writing within 10 minutes of feature completion. Car protested has right to counter protest.
- 18.6 Only top 5 can protest.
- 18.7 All parts found illegal become the property of VMS until the end of the season.
- 18.8 Can OR Can't rule: DO NOT try to read between the lines in the rule book. Just because the book doesn't say you can't, don't assume you can. Any modifications not specifically outlined here are at the Tech Departments discretion. All final decisions will be made by the tech officials. Ask first before you assume something is legal.