

This class is designed to allow Late Models with any Straight Rail, Perimeter, Stock Stub or Fabricated Stock Stub "Late Model" Chassis to run with an economical motor package.

The guidelines and/or regulations set forth herein are designed to establish minimum acceptable requirements. No expressed or implied warranty of safety shall result from publication of, or compliance with these guidelines and/or regulations. And are in no way a guarantee against injury or death.

Questions on interpretation of rules need to be addressed before starting the building process.

- 1. The track reserves the right to modify these rules as may be necessary to keep the class competitive for all participants.
- 2. The track cannot anticipate every situation, circumstances or interpretation of these rules. Therefore it reserves the right to INSPECT, TECH or TEAR DOWN any competing car at any time.
- 3. Additional weight may be added to any car at track's discretion to keep the class competitive.
- 4. Any parts found to be illegal by Historic Bolivar Speeway rules will be confiscated by Chief Tech Official and not returned to team found to be illegal.
- 5. Anyone under the age of 18 (Driver or crew member) must have a *signed and notarized* minor's parental waiver / release form(s). Both parents must sign. Questions, please call before showing up at track. *Proof of age is* required.
- 6. At no time is anyone allowed to ride in or on the car with any part of their body outside the car. This includes in the pit or on the track. Disqualification from event can result.

### **Claim Rule**

There is a \$4,500 cash claim or trade in effect for this class. For the Cast Iron Head Engines.

The claim is for the Engine – Long Block, DOES NOT INCLUDE:

Oil pan & pump

Valve covers

Intake or Carburetor

**Distributor** 

Pulleys or Pumps

Fly wheel or Clutch

#### 1. WHO CAN BE CLAIMED

Any car finishing in the Top 5 of a feature event is subject to being claimed.

#### 2. WHO IS ELIGIBLE TO MAKE A CLAIM

Any Driver making claim must have finished the same race as car being claimed. He also must have finished as one of the Top 5 in that race.

#### 3. CLAIM PROCEEDURE

- 1. Team claiming must present \$4,500 cash and 2 other Drivers or Car Owners signatures from cars starting the same feature to Speedway Officials. This must be done before the cars are released from Tech.
- 2. Car/Engine being claimed will have the option to accept cash or trade.

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- 3. If claim is accepted Engine Long Block is to be pulled and the following items may be removed: Oil pan and pump, Valve covers, Intake or Carburetor, Distributor, Pulleys or pump, Fly wheel and Clutch.
- 4. If a trade is accepted both cars will pull Engine Long block and remove the above listed items.
- 5. A driver accepting claim as cash will be given his point average the following scheduled race to insure proper time to replace car claimed if, he can't make it back by said event.
- 6. Refusing claim will be punished by driver loosing the right to race the remainder of the 2019 race season, in all classes and entering the pits at Historic Bolivar Speedway. All prize money for night and any contingency or prizes are forfeited for the 2019 season.
- 7. Any argument as to claim will be heard by Speedway Official and their decision to claims that it is legit or not will be upheld.

# Any Straight Rail, Perimeter, Stock Stub or Fabricated Stock Stub "Late Model" Chassis is permitted.

# A. Body Rules

- 1. Must have complete factory appearing steel, aluminum or fiberglass body in proper configuration for make and model.
- 2. No carbon fiber body parts allowed.
- 3. Interior can be aluminum or steel and must be sealed.
- **4.** Maximum tread width allowed is 66-inches.
- 5. Must have a minimum of 1/8" Lexan windshield with proper bracing, (No Outlaw type front windshield). All glass is to be removed. Lexan windshield with 3 support bars required. Must be clear, not tinted. Side windows must remain open. Rear and quarter window will be in Lexan.
- **6.** Unibody cars must have 10-inch circumference square or rectangular frame rails added with .125- inch wall thickness connecting front and rear sub-frame.
- 7. Frame height minimum of 4-inches without driver, on both sides of car.
- **8.** Driver must have easy access into and out of car on both sides.
- **9.** Must have tow hook, chain or cable, front and rear, capable of supporting the car.
- **10.** Must have stock appearing type nose (No dirt Late Model noses).
- 11. Must have stock appearing rear bumper cover and must be enclosed.
- 12. Must have stock appearing roof.
- 13. Stock appearing bodies may be Aftermarket or O.E.M. Body should be ABC or similar stock body. Steel, Fiberglass or Plastic panels OK. Standard 5-Star or ARP pavement short track noses and roof must be used and may be cut or altered. (Fenders, doors and quarter panels MAY BE FABRICATED but must be similar in appearance to those produced by ARP/5STAR).
- 14. No angled or wedge-type bodies.
- 15. Rear quarter panel width -79.5" max. Must gradually taper from body width at tires to the width at the rear spoiler. (NO straight quarter with an abrupt kick-in just before the rear spoiler).
- 16. Rear spoiler: Will not extend beyond bumper. Height 6-inch from front side including curl.

Width – 72-inches maximum. Must be centered. Clear Lexan ONLY, with NO graphics. Triangular braces may not exceed 18-inches in length and will not extend beyond the top of spoiler.

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- 17. Width of body may not exceed 79.5-inches at any point.
- 18. Width of nose 80-inches maximum at any point, and no further back than centerline of front spindle.
- 19. Body ledge 4-inch maximum. Measured between front & rear window post. C-pillar may taper 9-inches maximum from edge of body at a point 52-inches forward of base of rear spoiler. No concave panels. C-pillar must be at 30 degree minimum angle from horizontal.
- 20. Height of roof to ground (10" from front and back).....minimum 47-inches
- 21. Ground clearance of body forward of front tire......(nose height)...minimum 5-inches
- 22. Center of front hub to front of nosepiece/spoiler/splitter.....maximum 45-inches
- 24. Height and width of side window (Height...minimum 16-inches......Width....Minimum 22-inches)
- 25. Ground clearance behind rear tire to quarter panel.....minimum 13-inches
- **26**. Top of quarter panel to ground, measured at spoiler......maximum 35-inches
- 27. Driver must be separated from engine, fuel cell and oil systems by metal firewall.
- 28. No aero-devices within quarter panels.
- 29. Bumpers All reinforcement must be from backside of bumper. Ends must be capped, rounded and smooth.
- 30. Rub rail are discouraged.

#### **B. WEIGHTS**

All weights are after the race with driver sitting in normal upright position. Weights, percentages and spoiler height may be modified to make class competitive minimum of 2750 pounds with maximum 58% left weight.

#### C. ENGINE

- 1. Crank height is set at minimum of 10 ½ inches for all engines.
- **2.** Engine set back is 4" on stock frame, and 2" on fabricated frame.

# D. ENGINE OPTION # 1 – CAST IRON HEAD ENGINES WITH 11.0:1 COMPRESSION

Only V-8 engines with a minimum displacement of 350.0 cubic inches and a maximum displacement of 365.0 inches are permitted. The maximum compression ratio is 11 to 1. No dry-sump systems.

# 1. Cast Iron Head Engine - ENGINE BLOCK

Block must be a factory production cast iron block with external measurements identical to the standard production engine. Angle milling of block is prohibited. All engine block markings must remain. No aluminum engine blocks permitted. The maximum cylinder bore is 4.080 inches.

# 2. Cast Iron Head Engine - CRANKSHAFT and HARMONIC BALANCER

Only cast iron or forged steel crankshafts are permitted. Titanium crankshafts are prohibited. Crankshafts with journal sizes less than 1.980 inches or undersized journals less than original factory specifications are prohibited. Minimum crankshaft weight is 45 lbs. Lightweight, knife-edge, and undercut counterweight, crankshafts are prohibited. Steel type balancer only - aluminum balancers are prohibited. Must be stock stroke.

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#### 3. Cast Iron Head Engine - PISTONS AND RODS

Any flat top piston may be used. Valve reliefs may be cut into pistons. No part of the piston may protrude above the top of the block. Only magnetic steel connecting rods are permitted. Titanium rods are prohibited.

#### 4. Cast Iron Head Engine - OIL PANS

Wet sump oil pan only. Steel oil pan only. Oil pan must be equipped with a ¾ inch plug for inspection. The plug must be directly in line with a rod journal. Engines equipped with a windage tray must provide a hole in the tray, in line with the plug.

#### 5. Cast Iron Head Engine - CYLINDER HEADS

Only the following Historic Bolivar Speedway stock type approved cylinder heads may be used:

Manufacturer Cylinder head Intake Runner Volume Measured in cc's

#### **GENERAL MOTORS**

Part # 14011058 187 cc's

Part # 10134392 187 cc's

Cast # 14011034 187 cc's

#### CHRYSLER CORP.

P249769 198 cc's

P452946 198 cc's

#### **FORD**

M-6049-N351 197 cc's

M-6049-E351 197 cc's

These I-44 Speedway Aftermarket Heads maybe used:

#### **GENERAL MOTORS**

Dart - 10320010 or 10310010

World Products – 011250 or 011150

RHS - 12319 or 12320

EQ - CC200BA

Bowtie -034

#### **Ford**

World Products – 053040 or E351 or Roush 200

RHS - 35302

SVO - N351 or N352

Cylinder heads must remain stock. All cylinder head markings must remain. Angle milling, chemical treating, acid dipping, acid flowing, abrasive blasting, bowl cutting, addition of material to the ports or combustion chamber, or other alterations to the original, as cast, head is prohibited. Valves, rocker studs, head bolts, and spark plugs may not be relocated. No polishing or grinding of ports or runners is permitted (combustion chamber may be polished). The cylinder head to block surface may only be

machined a maximum of 0.050 inches from OEM. Minimum combustion chamber size shall be 62.0 CC's for all models. A three-angle valve job may be done as long as no machining marks are more than 1/8 inch above the head of the valve. The maximum valve sizes, as measured across the face, are as follows:

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# 6. Cast Iron Head Engine – MANUFACTURER INTAKE EXHAUST

GENERAL MOTORS 2.020 inches 1.600 inches

CHRYSLER CORP. 2.020 inches 1.625 inches

FORD "CLEVELAND" 2.046 inches 1.656 inches

FORD "WINDSOR" 2.020 inches 1.600 inches

Use of titanium valves is prohibited. The maximum allowable spring diameter is 1.57 inches.

#### 7. Cast Iron Head Engine - CAMSHAFT, VALVE LIFTERS, & ROCKER ARMS

Any steel or cast-iron camshaft may be used. Camshaft journals must be stock for engine. Roller camshaft bearings are not prohibited. The maximum camshaft lift is 0.625 inches, measured at the valve. Roller tappets and rev kits are not permitted. Any, all steel lifter is permitted. Only steel push rods are allowed. Roller rocker arms are permitted. Maximum rocker arm ratio is 1.6 to 1. Shaft type rocker arms are permitted on Chrysler motors only. Stud girdles are permitted.

#### 8. Cast Iron Head Engine - INTAKE MANIFOLD

Any readily available, production type, intake manifold is permitted. Retail cost must not exceed \$350.00. No material may be added to the manifold. Grinding or polishing of the ports is prohibited. Port matching of the intake manifold is permitted to a maximum of 1 inch. The maximum height of the manifold, as measured from the top of the cylinder block to the base of the carburetor (including adapter plate and gaskets), is 7 inches. Any 1" tall spacer or adapter is allowed. NO chamfering, tapering, or beveling of the adapter plate is permitted. Only one flat gasket, with a maximum thickness of 0.120 inches, may be used between the intake manifold and cylinder head. No spacer or wedge type gaskets are permitted between the intake manifold and head.

# 9. Cast Iron Head Engine - OIL PAN

MUST HAVE 3/4" INSPECTION HOLE ABOVE OIL LEVEL FOR INSPECTION. Inspection hole needs to be installed in a manner were Tech officials can see crankshaft & rods for proper inspection. If not pan may be removed for inspection.

# 10. Cast Iron Head Engine - CARBURETOR

- A. Any Stock Holley 2-barell carburetor or 4-barell carburetor is permitted
- **a-1**) A Carburetor track claim rule will be in effect:
- a-2) Claim will be \$600 with NO EXCHANGE.
- a-3) Claim to be made by track.
- **B**. No use of any type of Epoxy or other coating of any type is permitted.
- C. Fuel injection, superchargers or nitrous oxide are not permitted.
- **D**. Alterations to allow additional air to be picked up below opening of venture will not be permitted.
- E. Double return spring required.
- **F**. Base plate must not be altered in any way.
- **G**. No polishing, grinding or drilling of holes permitted.
- H. No tapered boosters. Boosters may not be changed or altered in any way.
- I. Venturi area must not be altered in any way. Casting ring may not be removed.
- **J**. Any standard production unaltered intake allowed.
- **K**. Any 1" tall spacer is allowed.

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L. Carburetor must be securely fastened to intake manifold. Carburetor and adaptor gaskets maximum .05-inch thickness.

# 11. Cast Iron Head Engine - Must use 7000 RPM Chip.

#### E. ENGINE OPTION # 2 – CRATE MOTORS

The following engines may be used in competition: GM #88958604 / Ford M06007-D347-SR / McGunegill Ford 425LM

- **A**. The above engines must be raced as produced by the Manufacturer or within the rebuilder guidelines...EXCEPT WHERE NOTED IN THESE RULES.
- **B.** The GM Engine may utilize 1.6 rocker arms, GM valve spring kit #12586484, Comp Cams valve spring kit #941-16, Champ Oil Pan # CP106LTRB, and may have the balancer replaced with an SFI approved aftermarket balancer. The GM Engine may use a 1" aluminum spacer with 1 paper gasket per side, not to exceed .065" thickness. Spacer must be open or 4 hole with NO taper or radius.
- C. Teams that utilize an UNALTERED, FACTORY sealed GM Engine that does not exceed 435 horsepower on THE series approved Dyno, may deduct 50 lbs. This engine MUST NOT have any of the updates allowed in these rules and may NOT use the carb spacer outlined above.
- **D**. The Ford D347 Engine may utilize the KEVKO Oil Pan and Pick-up #F201 & F201-1, as well as an SFI approved aftermarket balancer.
- **E**. All Ford engines MUST use 1.5 rocker arms only.
- **F**. All Engines must be located so the forward most spark plug is no more than four inches (4") from the center line of the upper ball joints.
- **G.** Engines may not be offset more than one inch (1") from centerline of car.
- **H**. Front center of crankshaft must have at least ten inches (10") of ground clearance.
- I. No crankcase evacuation systems allowed.
- **J**. Any competitor that finishes in the top 5 may be required, at their expense, to remove the intake, heads, and/or oil pan for inspection purposes.

#### 1. Crate Motors – CARBURETOR & FUEL SYSTEM

- **1-a**). Holley 650 HP 4150-80541 is the only carburetor legal for use and it must remain unaltered from manufacturer. No epoxy or coatings of any kind.
- **1-b**). The following list of tuning and replacement parts are permitted for use on the carburetor. Parts must be only genuine Holley replacement parts and must exactly match parts replaced: Jets, Bleeds, Needle & Seat, Emulsion Bleeds, Power Valves, Accelerator Pump Nozzles, Accelerator Pump Cam, and Carb Specific Floats (floats may be modified/angle cut)
- 1-c). A maximum 16 inch (O.D.) air element and housing must be used.

#### F. Common Technical Rules

1. All cars must go thru technical inspection prior to car taking to the track for practice. Cars will be weighed with driver, and may be done prior to or after qualifying and prior to or after feature. Reading of designated scales will be official. Issues discovered in pre-practice tech that are not fixed to satisfaction by pre-qualifying tech will result in the loss of 1 qualifying lap.

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- 2. Fuel samples may be taken at any time and tested. Alcohol, nitro-methane, nitrous oxide, other oxygenating agents, other additives and/or fuels that contain masking agents or oxygen are not permitted. Street-use pump gas is not permitted. Use of such substances or additives will result in immediate disqualification and loss of points. Use of any fuel that contains oxygen is prohibited.
- 3. Bleeders are not allowed. Hidden bleeders will be checked for!!!
- **4**. Use of tire softening or altering agents is not permitted. Use of such substances will result in immediate disqualification, loss of points and money.
- 5. Vehicles must have 4-wheel hydraulic brakes.
- **6**. No traction control devices, electronic or otherwise, will be permitted. Use of traction control will be cause for immediate disqualification and suspension from future racing activities. No driver adjustments other than brakes.
- 7. One Ignition Box Only.
- 8. No Tungsten or similar weight allowed!
- 9. No DIGITAL radios are allowed.
- 10. Data Acquisition is not legal on officially recognized race or practice days.

#### **G.** Penalties

1. Penalties for violation of the rules are determined by the gravity of the violation and/or its effects on fairness of competition. They may also be weighted as to discourage future infractions of a similar nature. Penalties may include, but are not limited to, lap penalties, position penalties, disqualification, suspension of license, posting of bond, fines, and/or loss of points. A suspension may be for a determined period of time, number of events, or remainder of season.

# H. Safety

- 1. Radio communication to the drivers is mandatory, either the driver must monitor track frequency or must have a minimum of one (1) spotter for each team. Spotter must have the capability to monitor series race control with a scanner.
- 2. Approved seat belts and double shoulder harness will be required, no older than five (5) years. A crotch strap will be required. Sternum strap recommended.
- **3**. A capable form of head & neck restraint must be used. A strap-type neck restraint is mandatory. Driver will not be allowed on the racetrack at any time without proper neck restraints in place.
- 4. Helmet must be 2005 Snell standard or better and have sticker visible for inspection. Full-face helmets required.
- **5**. Approved, clean full driving suit and gloves for fire protection are mandatory.
- **6**. Must have a working fire suppression system (preferred) or, at minimum a driver accessible fire extinguisher. Gauges for extinguishers must be easily visible for inspection.
- 7. Side plates for driver's door will be mandatory. Must be 12 inches (12") high post to post, 1/16" minimum thickness steel and must be fastened with a minimum of six (6) half-inch bolts or securely welded.
- **8**. Driver's window must be equipped with safety net with quick release-latch. String window nets are not permitted. The minimum net size must be 22" wide and 16" inches high. When latched, the window net must fit and pull tight.
- **9**. Resilient padding designed for roll bar must be installed on any roll cage member, which can be reached by any extremity of the driver while driver is normally seated with restraints fastened. Steering wheel must be padded.

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- 10. All lead weights must be painted white, with the car number painted on each individual piece and be visible from the top. All lead must be securely fastened. Any lost weight may result in a \$10 per pound fine. No Tungsten, bb, liquid or similar weight allowed.
- 11. All competing teams must possess a minimum 10 lb. Aluminum working fire extinguisher while in attendance in pits, and this item must be presented at inspection. Car number must be painted on fire extinguisher.
- 12. A main electrical cut-off switch needs to be clearly marked and easily accessible to safety crews. It must be located on the dash in the center in clear view, or must be located on roll bar behind driver within reach of window. "On" and "Off" switch must be clearly marked.
- 13. Car numbers are required to be registered with Historic Bolivar Speedway. Numbers must be a minimum of 24" in height, with body of each character a minimum of 3" in width and must be professionally placed on each door. A number will be required on top.
- 14. A car number at least six inches (6") in height must be placed in the upper right hand corner of the windshield.
- 15. Roll cage must be constructed of 1 <sup>3</sup>/<sub>4</sub>" OD round steel tubing with a minimum wall thickness of .090". Three inches (3") maximum gussets measured diagonally must be welded in main roll cage area where a 90 degree angle exists or where the roll cage meets the main frame rails. The main frame rails / bolt-on clips must be steel from radiator area to behind the fuel cell. Main Frame rails must be a minimum of 2" x 3" rectangular steel.
- **16**. No part of cooling system may be located in driver's compartment.
- 17. Batteries must be securely fastened and mounted outside of driver's compartment.
- **18**. All cars must have an OBERG Vacuum Style (preferred) or ball valve type fuel shut off placed at the point the fuel exits the cell.
- 19. A driver that stops on the track should not get out of their car until safety crews arrive, unless a dangerous situation with fire exists.

# I. Fuel System

- 1. Track Fuel will be Spec fuel. Alcohol, nitro-methane, nitrous oxide, other oxygenating agents, other additives and/or fuels that contain masking agents or oxygen are not permitted. Street-use pump gas is not allowed. Use of such substances or additives will result in immediate disqualification and loss of points.
- 2. No electric fuel pumps or forced induction of any kind are permitted.
- 3. No icing or cooling of fuel system.
- **4.** A fuel cell will be mandatory with a 22-gallon (U.S.) maximum. Fuel cell must have a minimum of eight inches (8") ground clearance. Fuel cell must be equipped with at least two (2) protective straps completely around the cell. Fuel cell must be mounted securely behind the rear axle of the car. Cars must have a minimum 1/8" steel plate, or similar strength aluminum plate, between fuel cell and rear end. A similar plate at the rear of the fuel cell is recommended. All cars must have safety bar at the rear of the fuel cell. At a minimum, all fuel cell configurations must include a rubber type cell in a steel container. No "U" Shaped Fuel Cells or non standard-shaped fuel cells.

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#### J. Suspension

#### Spring rater on hand...springs may be pulled and inspection & rating.

- 1. Big Spring 5" cars must have a minimum spring rate of 700 pounds on front of car.
- 2. Coil-over cars must have a minimum spring rate of 350 pounds on front of car.
- 3. No bumpstop devices of any kind permitted.
- 4. No stacked springs allowed.
- 5. Sway bar maximum of 1 1/4" diameter and be hollow.
- 6. No fifth (5th) coil, or lift bar suspensions will be permitted. No birdcage set-ups of any kind (3 or 4 link). Trailing arms must mount to rear end in a solid fashion (heim allowed) and no part of the trailing arm mounting may freely rotate around the rear end. Trailing arms must be solid, one piece construction with no moving parts, with one heim at each end of the trailing arm. Trailing arm mounts must also be solid and may not have the ability to move. Must be a solid upper 3rd link.
- 7. No cockpit, driver adjustments, other than brake bias.
- 8. Coil Springs and Spindles must be Steel. (Exception: approved Coleman Spindle)
- **9**. No traction control devices, electronic or otherwise, will be permitted. Use of traction control will be cause for immediate D.Q. and suspension from series.
- 10. For 2019 you can run any steel body old school shock on rear. AFCO, Pro Carrera .
- 11. Front shocks- Only AFCO 14 Series Steel body Twin-Tube or Pro WB Large Body Shocks 2.00 Diameter Shocks.
- Only one shock per wheel. Shocks must be only mechanical in nature and no part of suspension or shocks may utilize electricity.
- 13. There is an \$80 claim on all shocks.

#### K. Wheels and Tires

- 1. 2019 TIRES 8" AR-870 All tires must be entered in Tire Book at time of purchase. Old tires from last year can be used for practice, but must be entered in tire book as such.
- 2. Steel 8" or 10" wheels OK.
- **3.** Tire will be bar coded and pit into team's inventory and each team may purchase one new tire per feature event run, tire to be purchased the following event. You CAN NOT bank your eligibity for tires, you must purchase eligible tire within 2 events, you may bank your purchased tires.
- 4. You may start the season with 6 tires.
- **5**. May have 4 new tires on for feature.
- 6. Damaged tires from wreck must be approved by tech official the night of incident and replaced that night. Tires will not be allowed to be replaced at later date.
- 7. It is the drivers responsibility to insure that tire codes are entered into their tire inventory.

#### L. Transmission, Driveshaft, Rear End

- 1. Full standard type transmission only will be permitted. No quick-change transmissions will be permitted. Automatic transmissions will be permitted. Bert, TCI, Falcon or Brinn style transmissions ARE permitted. Must have an approved scatter shield constructed of .125-inch by 3-inches steel, 270-degrees around top of flex plate. Splined drive flange coupler with internal pressure relief device, gate valve, or torque converter (10-inch minimum) only. Hydraulic lines may not extend into driver compartment. Crate engine teams may use their transmission rules with no weight penalty.
- 2. A minimum of one reverse and two forward gears will be required.
- 3. All transmissions must have a final gear ratio of 1 to 1 and no other gears may have a ratio numerically lower than 1.18.

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- **4.** Transmissions that utilize drop out features (i.e.: causing the disengaging of the cluster gear or auxiliary shaft) are PROHIBITED. HIGHTOWER, BUZZIES, EARNHARDT TECHNOLOGIES, OR ANY HIGH DOLLAR, EXOTIC, UPGRADED "JERICO" TYPE TRANSMISSION WILL NOT PERMITTED.
- **5**. Multi-disc clutches will be permitted. No direct drives. Conventional clutch mounted to fly wheel only will be permitted. Any transmission that does not meet these guidelines may be assessed a minimum 25 lbs penalty.
- **6**. No carbon fiber or nonstandard material clutches. The minimum clutch diameter is 5.5". No "slipper" or "centrifugal" clutches allowed.
- 7. Driveshaft must be equipped with a minimum of two (2) safety straps and must be painted white. Drive shafts must be made of Aluminum or Steel only, and use no other materials (i.e. carbon fiber, etc).
- **8**. Rear end may be quick-change (NO 8") with full floating hubs or 9" Ford.
- 9. Rear end differential must be spool only, NO lockers, true trac, gold track or gleason allowed.
- 10. No camber rear ends, hubs or drive plates.
- 11. No aluminum tube rear-ends.

#### M. Brakes

- 1 No carbon fiber rotors. Only steel rotors are allowed (no titanium).
- 2. Brake fluid circulators permitted. Liquid or gas cooling not permitted.

# N. Ignition

- 1. Battery powered ignition. Vehicle MUST start under own power.
- **2**. Maximum 16 Volt Battery. Car must be capable of being started with a 12- volt battery. No Magnetos. One ignition box only.
- **3**. All wiring must be sealed. No unplugged wiring. All ignition boxes must be mounted on the passenger side, in plain view, and out of reach of the driver...and...all wires to the distributor must be run separately and not part of a bigger loom or wiring harness.
- **4**. Teams may only use the following ignition system: Crane Cams Ignition part# 6000-6700 (HI-6RC) and a Coil part# 730-0192 (PS92N), or MSD (please check with Tech Official to verify model).
- **5**. Rev limiting device must be operational at all times with RPM Dials securely covered. Method of securing RPM limiting devices may be changed by officials. Crate Ford Maximum RPM is 6300. Crate Chevy Maximum RPM is 6400.
- **6**. MSD with removable chip is OK, must be out of reach of the driver.

#### O. ROLLCAGE

- 1. Must consist of continuous hoops not less than 1 ¾ inch outside diameter and must have a wall thickness of at least .095-inch carbon steel round mechanical tubing.
- 2. Must be welded to frame in at least 6 places or welded to 6" by 6" upper sandwich plate made of  $\frac{1}{4}$ " steel and connected to the bottom sandwich plate by four  $-\frac{1}{2}$ " diameter grade 5 bolts. Body mounted roll cages are not acceptable.
- **3**. Must consist of configuration of front and rear hoops connected by tubing on sides or side hoops in a manner deemed acceptable by the inspector.

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- **4**. Driver's head must not protrude above cage with helmet on, while strapped in driver's seat. A minimum of 3 inches of clearance to nearest tubing.
- **5**. Roll cage must have 3/16-inch inspection hole in non-critical area.
- 6. Minimum requirements for all roll cages are as follows:
  - A) 4 upright bars and 3 overhead bars
  - B) Must have at least 4 curved horizontal bars at driver's door welded to front and rear cage members and must have a .062 minimum thickness steel door plate from front to rear welded to outside of driver's door bars. And 3 in passenger door connected by vertical tubing.
- C) 1 horizontal bar in dash area connecting front uprights.
- D) Roof support bar (see diagram #2).
- E) Rear hoop brace (see diagram #3).
- F) Tubing to protect driver's feet (see diagram #4).
- G) Vent window brace on driver side (see diagram # 4).
- 7. Must have a .062 minimum thickness steel door plate from front to rear welded to outside of driver's door bars.
- **8**. Bends must not have any kinks.

#### P. ENGINE COOLING SYSTEM

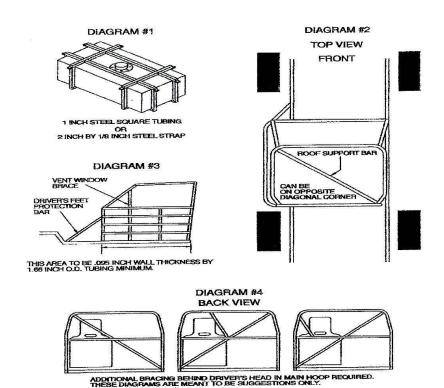
- **1.** All engine-cooling radiators must be mounted in engine compartment.
- 2. Must have operational radiator overflow tank with a minimum capacity of 1-gallon, securely mounted.
- **3.** Water only as coolant. NO ANTI-FREEZE. Violators subject to penalties.
- **4.** Fan shroud must cover a minimum of 180-degrees of fan. Must extend at least to centerline of fan blades.

# Q. EXHAUST

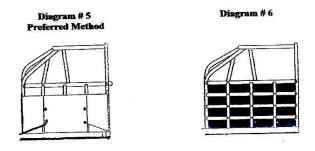
- 1. Exhaust must exit behind the driver.
- 2. If exhaust exits through the door, installation must include an exhaust flange that is mounted flush to the door. Maximum ½-inch gap around the exhaust pipe. Pipe must not protrude through door.

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#### PROPER DRIVER SIDE DOOR PLATE INSTALLATION



#### SEAT / SAFETY HARNESS

3-bar adjuster should be positioned as close possible to harness bar or snap-on/bolt-on bracket. This applies to both lap and shoulder belt points. The final wrap as pictured in #9 is mandatory. At Least 4-inches of webbing material must extend out from the adjuster after this final wrap is completed.

Diagram #7 Lap Belt Angle



Diagram #8 Sub Strap Angle



Diagram #9
Proper Wrapping of
Shoulder Harness Belts







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# **Body Dimensions** শ্ব MIN 6" Max 35" Max

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• No Outlaw Wrap Around Windshield Allowed



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