

# HMP HOBBY STOCK RULES

Revised 12/08/05

## 1) RULES AND APPLICATION

a) The following rules and regulations apply to the HOBBY STOCK Class at Houston Motorsports Park (HMP).

b) These rules and regulations are designed to promote competition and safety for all who compete at Houston Motorsports Park. Even though thought and effort has been given to require as safe a car as possible through these rules, it is incumbent on each driver, pit crew person, spectator, track employee, and track official to use prudent judgment and personal restraint in the name of fair competition and safety. These rules in no way ensure safety nor prevention of injury to any person participating in or spectating at Houston Motorsports Park.

c) Houston Motorsports Park officials welcome your suggestions and recommendations to improve the racing and safety of racing at Houston Motorsports Park. Please convey your suggestions and recommendations to the Technical Inspector or the General Manager.

d) Refer to the General Rules, Track Regulations, Car Registration, and the Rules Disclaimer for additional information and guidance.

e) Houston Motorsports Park officials reserve the right to interpret and apply the rules and procedures at Houston Motorsports Park. The interpretation by HMP management is binding and final.

## 2) TECHNICAL INSPECTIONS

a) Every competing vehicle, regardless of class, is subject to a safety and technical inspection by the Technical Inspector at any time.

b) Every race car competing at Houston Motorsports Park is required to pass a safety inspection by the Technical Inspector before the car is allowed to compete. The Technical Inspector has the option to allow the car to compete without passing the Safety Inspection if, and only if, the Technical Inspector determines that the noncompliance item is such that it may be allowed a one-time exception. Any one-time exceptions must be corrected and verified by the Technical Inspector prior to the next scheduled race night.

c) As a general rule, the top three finishers of each feature race will be inspected. Additional cars may also be inspected at the same time if the Technical Inspector or another Houston Motorsports Park official deems it necessary and appropriate.

d) If a car is found to be not in compliance with the rules it will be disqualified and no point or money will be awarded for the race event night.

e) Anyone refusing to be inspected by the Technical Inspector will be disqualified. They will forfeit all winnings and points for the race event night. They will be inspected the next time that the car returns to the track.

f) Should anyone refuse to be inspected by the Technical Inspector for a second time, any points and money will be forfeited for the race event night, and, the car will be inspected prior to being allowed to compete at the next event. The car will be inspected at the end of the race night regardless of the finishing place in any races for the event.

g) The Technical Inspector is available before, during and after each event to assist in the application or interpretation of any technical rule. It is highly recommended that interpretations are requested and resolved before the night of competition, and, the technical inspections. The Technical Inspector is here to help not hinder each racer at Houston Motorsports Park.

h) The decision of the HMP Technical Inspector is final and binding in all matters of interpretation and application of these rules and regulations.

### **3) SAFETY EQUIPMENT**

a) Every driver is required to wear an approved driver's suit (fire suit) anytime they are on the track and in the race car practicing, testing, or competing in a race.

b) Racing gloves and shoes are mandatory.

c) Every driver is required to wear an approved full face safety helmet. The driver's helmet must have at least a Snell 95 or SA 2000 rating.

d) A neck brace is required. Hans or Hutchens devices are highly recommended.

e) Every race car is required to have a fire extinguisher mounted in easy reach of the driver. The fire extinguisher and bracket must be metal and not plastic.

f) Each Race Team is required to have at least 1 10-lb. fire extinguisher in their pit. The fire extinguisher must have the car number painted or stamped on the body of the fire extinguisher.

g) Five point racing type of seat belt (harness) with 3-inch belts, except that the sub belt may be a 2-inch belt. Quick release buckles are required and must be securely mounted to roll cage. Seat belts (harness) must not be over 5 years old, dated from manufacturing date.

h) Window nets of 1-inch web design and installed with a quick release are required on the driver's side window.

i) The roll cage in the drivers' area must be padded.

j) Only one (1) rear view mirror will be permitted and must be mounted at the top and center of the windshield. "Wink" type three (3) dimensional mirror permitted with a maximum width of 26-inches. No side mirrors.

k) Ballast weight is not allowed in the driver's compartment.

### **4) SEAT**

a) Aluminum racing seats are required and must be securely mounted to the roll cage with a minimum of (4) 3/8 bolts, 2 of which must be near midpoint of drivers back. Fiberglass and bucket seats are not allowed.

b) Seat may not be set back farther than 30 inches measured from seat back to center of rear axle.

### **5) BODY AND CHASSIS**

a) Any American made steel body 2-door or 4-door sedans or hardtop with a minimum of 108-inch factory wheel base is approved. All others must be pre-approved by the Technical Inspector.

- b) Station wagons, Broncos, Pickup Trucks, Camaros and like body styles are not approved for the Hobby Stock Class at Houston Motorsports Park.
- c) The front firewall and rocker panels must be stock and intact.
- d) All holes in firewall must be covered with min. 22- gauge sheet metal.
- e) Aftermarket nose and rear piece are allowed.
- f) The body must remain stock appearing. Aftermarket stock appearing parts may be used, steel only.
- g) The hood, roof, and floor pan may be hulled out, but the floor pan must remain stock from rear of the 4-point roll cage area forward to front firewall except that the passenger side of the floor pan may be opened up to clear the muffler. Any opening must be covered and sealed with sheet metal.
- h) Front inner panels may be trimmed or removed.
- i) Each door must be securely fastened to the car body by welding, bolting or riveted shut.
- j) Aluminum and fiberglass body parts are not allowed unless the vehicle came from the factory with aluminum parts.
- k) Sheet metal doors are allowed but they must be at least 22-gauge steel.
- l) Solid body mounts are allowed.
- m) The instrument panel may be aluminum.
- n) Rear deck spoilers are allowed but the maximum height is 6-inches and the maximum width is 56 inches, mounted to the trunk lid.
- o) Front and rear frame rails may be tied together.
- p) Factory installed spoilers are allowed.

## **6) WINDOWS**

- a) Each racecar is recommended to have a front windshield. The windshield must be Lexan™.
- b) The windshield must be braced with 2 inside vertical braces to support the window. These braces should be near the center of the windshield.
- c) Door windows are not allowed except for air ducts which must not fully enclose window opening.
- d) Rear windshield is optional. Bracing same as front.

## **7) INTERIOR**

- a) All cloth, plastic, glass, chrome, and any combustible material must be removed.
- b) A fire extinguisher must be mounted to the floor within easy reach of the driver. Only metal mounting brackets are approved.

c) Passenger side and rear deck area may be covered using metal only, steel or aluminum. No plastic allowed.

## **8) BUMPERS**

- a) Each car must have one front and one rear bumper at the beginning of each race event.
- b) Both bumpers, front and rear, must be welded or bolted to the chassis or frame of the car.
- c) If factory stock bumper is not used, bumper must be made of no larger than 4x4-14 gauge square tubing or 2" .095 wall round tubing and must be covered with plastic nose piece.

## **9) EXTERIOR CONDITION**

- a) The exterior of the race car must be repaired after each race night.
- b) Any damaged body parts are subject to approval by the Technical Inspector prior to a race event.
- c) Race damage may prevent a car from returning to the race even if it is in running condition. The technical inspector has the option and authority to determine if the car is safe and may return to the race or if it may enter another race without being repaired.

## **10) ENGINE LOCATION**

- a) The engine must be no farther back than the #1 spark plug even with ball joint.
- b) Machining and cutting for the fuel pump clearance is allowed.
- c) The firewall must remain factory stock, but may be moved for clearance.

## **11) ENGINE AND TRANSMISSION MOUNTS**

- a) Stock engine and transmission mounts are allowed.
- b) Steel solid engine and transmission mounts are allowed.

## **12) SUSPENSION**

- a) Factory OEM suspension required unless otherwise stated here.
- b) Upper control arms may be changed to IMCA spec tubular # Arm-oo621. Control arm bushings may be changed to solid or neoprene.
- c) Heavy duty factory OEM spindles may be used.
- d) Adjustable spring shackles may be used.
- e) Any stock mounted sway bar, front or rear, is allowed. All sway bars must mount on top of control arms.
- f) Heim joints and mono-joints are not allowed.
- g) The camber and caster may be adjusted.

- h) Weight jacks are not allowed, even hidden weight jacks.
- i) Aftermarket steel front hub and drum assembly recommended.
- j) Slider type rear spring shackles or mounts are not allowed.

### **13) SPRINGS**

- a) Racing springs allowed.
- b) All springs must be at least 5-inch OD and 9.5-inches tall.
- c) Front and rear springs may be different heights and spring rates.
- d) Adjustable spring spacers and lowering blocks are allowed.
- e) The rear leaf springs may be arched or de-arched.
- f) Racing leaf springs are allowed.

### **14) STEERING**

- a) The factory stock steering system is required.
- b) After market power steering pumps are allowed.
- c) Rack and Pinion steering is not approved.
- d) Any steering wheel is allowed.
- e) Steering wheel quick disconnects are allowed and encouraged.
- f) No quick steer systems.

### **15) BRAKES**

- a) Stock type brake pedals, master cylinders, calipers, and rotors are required.
- b) Master cylinder must be mounted in stock location on firewall.
- c) Only one master cylinder per car.
- d) Replacement of drum-shoe brakes with disk brakes on rear is allowed and encouraged – especially on cars with C-clip type rear axles.
- e) Power brakes may be used if the vehicle make and model came factory equipped with power or power assist brakes.
- f) Aluminum brake calipers are NOT allowed.
- g) Aftermarket master cylinders and brake bias adjusters not allowed.

### **16) SHOCKS**

- a) The front or rear shocks may not use Heim™ joint mounts.

- b) The front and rear shocks must be factory type replacement shocks and must be mounted in the factory stock locations using the factory stock mounts.
- c) Racing shocks are allowed but they must use the stock mounts and in the stock mounting locations.
- d) Relocating the shock mounts is NOT allowed.

#### **17) WHEELS**

- a) The maximum wheel width is 10 inches measured between inside tire bead surfaces.
- b) Racing wheels are required.
- c) At least 1/2-inch OD wheel studs and one-inch OD lug nuts are required.
- d) Each wheel is required to have all lugs and lug nuts.
- e) Steel wheels only. Aluminum wheels are NOT approved.
- f) Any wheel offset is allowed bead locks are not allowed.

#### **18) TIRES**

- a) Asphalt take offs from USRA, TSRS and Houston Late Models ok.
- b) 8 inch tires are allowed.
- c) Tire softeners and chemical treating are not allowed.

#### **19) RIDE HEIGHT**

- a) The minimum ride height must be 6 inches from the lowest point of the frame to the ground with the driver out of car.

#### **20) WEIGHT**

- a) The minimum weight of the car with the driver in the seat is 3,200 pounds after race.
- b) Topping off of fuel for weight allowance is not permitted.
- c) Any ballast weight used must be securely bolted with 1- 1/2" bolt per 50 lbs.
- d) All ballast weight used must be painted white or silver with car number in contrasting color.
- e) No ballast weights in the driver's area.

#### **21) ROLL CAGE**

- a) A four-point roll cage made of 1-1/2 inch 0.095 minimum thickness steel tubing is required. Galvanized water pipe is NOT approved any where in roll cage!!!
- b) The door bars shall be made of the same material as the roll cage.
- c) The roll cage must have four uprights and connected at the top in a "box" configuration.

- d) At least one horizontal brace behind the driver and connecting the rear uprights is required.
- e) At least one front horizontal brace between the front uprights is required.
- f) Intersecting welded joints in the roll cage tubing may be reinforced with steel gussets.
- g) Front and rear protection bars are allowed to protect the radiator and the fuel cell.
- h) There must be at least 4 horizontal bars in the driver's door and at least 1 horizontal bar in the right door. The bars must remain within the door and not be above the door.
- i) The driver side door bars must have a 1/8-inch thick steel plate welded to the outside of the door bars covering the lower three bars to protect the driver from side impacts. The plate must be installed between the door skin and the door bars.

## **22) FUEL CELL**

- a) A maximum 22-gallon fuel cell is required.
- b) The fuel cell must be enclosed in a steel container.
- c) The fuel cell must be securely mounted in the trunk and as far forward as possible.
- d) The fuel cell must not be lower than the center line of the rear axle housing.
- e) The fuel cell must have a roll over safety valve.
- f) The fuel cell vent must exit the car at the left rear near the stop light location. The exit line must protrude at least 2-inches outside of the body.
- g) The fuel cell must be installed in the trunk of the car with a minimum of 2 straps on the top and 3 straps on the bottom. Each strap must be at least 1-inch wide.
- h) Rear fuel cell protection bars are required.
- i) The fuel lines that run into or through the drivers' compartment must be enclosed in steel tubing or must be braided steel lines.

## **23) FUEL**

- a) Pump gas or racing fuel allowed.
- b) Alcohol, nitrous-oxide, aircraft fuel and any fuel additives are not allowed.
- c) Fuel cooling devices are not allowed. (Cool Cans etc...)

## **24) ELECTRICAL**

- a) A maximum of one battery is allowed.
- b) An alternator or generator is optional.
- c) A master electrical power cut-off is required to be mounted within easy reach from outside of the car. When this switch is off all electrical power in the car is off.

d) Heavy duty starter and ignition switches are required, and must be mounted within easy reach of the driver and emergency crews.

e) The battery may be mounted in driver compartment behind driver's seat. Must be mounted securely and in a battery box with lid. The battery box is not the mount. Must have steel straps and bolts. **(No plumbers tape allowed)**

f) If battery is mounted in trunk area battery box is not required. Must have steel straps and bolts. **(No plumbers tape allowed)** All batteries must have a rubber cap on positive post.

## **25) IGNITION**

a) Stock factory type (OEM) ignition systems are required.

b) After market ignitions systems are not allowed except on track approved crate motor.

c) The distributor advance plate may be locked.

## **26) ENGINE**

**Crate motors are optional; there will be no motor teching in crate motors if seals are not broken. If a noticeable performance advantage exists, officials reserve the right to investigate further.**

a) Only stock small block cast iron engines smaller than 400 CID are allowed. The 400 CID small block engine is NOT allowed.

b) The block may be over bored no more than 0.060-inches.

c) The maximum displacement for a GM engine is 360 CID.

d) The maximum displacement for a Ford engine is 364 CID.

e) The maximum displacement for a Chrysler Products engine is 364 CID.

f) Chevrolet Bowtie blocks or any Chevrolet block which will accept the small journal crankshaft without modifying the block is not allowed.

## **27) HEADS**

a) Only stock cast iron, straight plug heads for the size and brand of engine are allowed.

b) The heads may NOT be polished, ported, nor port matched to the intake manifold.

c) Angle milling of the head is not allowed.

d) The heads must have stock valves and valve springs.

e) Titanium valves are not allowed.

f) Vortec™, Bowtie™, SVO™ or W2™ or any other aftermarket performance heads are NOT allowed.

g) Guide plates are not allowed.

h) Angle plug heads are not allowed.

i) Only open chamber heads with 1.94-inch intake valves and 1.50-inch exhaust valves are allowed on Chevrolet engines.

j) The minimum combustion chamber size for Chevrolet, Ford and Chrysler head is 68 CC, measure at race conditions and temperatures.

k) Ford and Chrysler heads must be stock for the engine being used.

l) Modification or removal of the casting or head numbers is cause for immediate disqualification.

## **28) INTAKE MANIFOLD**

a) Only a stock OEM cast iron 4-barrell intake manifold is allowed.

b) Aluminum, marine, performance and aluminum intakes are not allowed.

c) The ports and runners may NOT be polished nor matched to the heads.

d) A valley tray is allowed.

## **29) CARBURETOR**

a) Rochester Quadra jet 4 barrel or Rochester 350 cfm 2 barrel allowed.

b) A box stock Holly Model 4412 - 500 CFM or the box stock 350 CFM Model 7448 carburetor is allowed.

c) The following changes to the carburetors are permitted. These apply to both the 4412 and the 7448:

d) The choke butterfly and shaft may be removed.

e) The power valve and the jets may be changed.

f) The butterflies may be drilled with one hole no larger than 3/16-inch diameter.

g) The throttle shaft must remain stock with no thinning or cutting in any manner.

h) The main body and metering block may not be reworked in any way. They must remain box stock.

i) The amount off holes and their location must remain as manufactured. Additional holes and passages will not be permitted.

j) Additional screw-in pressed in bleed holes in the main body or metering block will not be permitted.

k) A carburetor spacer of not more than 1.250-inch, including gaskets, is allowed for as spacing between the carburetor base and the manifold surface. The holes in the spacer must be the same dimensions from top to bottom of opening (no tapered hole spacers.)

l) Funnel and ram air devices are not allowed. A cool air box may be installed to pick up outside air at the cowl.

## **30) FUEL PUMP**

- a) Mechanical fuel pumps are allowed.
- b) Electric fuel pumps are not allowed.
- c) The mechanical fuel pump must be mounted in the stock position on the engine.

### **31) CRANKSHAFT**

- a) Factory stock crankshafts are required.
- b) Lightening and special machining of the crank shaft is NOT allowed, including grinding and polishing.
- c) Small journal Chevrolet crankshafts are not allowed unless they were factory equipment for the engine being used.
- d) The minimum allowable crankshaft weight is 48 pounds.
- e) The maximum rod journal undersize is .060 when compared to a stock crankshaft rod journal.
- f) No small journal crankshafts.
- g) No Honda type rotating assemblies.

### **32) CAM SHAFT AND LIFTERS**

- a) Any flat tappet cam, .300 lift maximum measured at lifter is allowed.
- b) Hydraulic lifters are required, and must be stock diameter no solid lifters.
- c) Roller cams Roller lifters and rockers are NOT allowed.

### **33) TIMING CHAIN/GEARS**

- a) Only stock timing chains and gears are allowed.
- b) Cam gear drives are NOT allowed.

### **34) BALANCER**

- a) Factory stock types of engine balancers are allowed.
- b) Fluid dampers and other after market balancers are allowed.

### **35) PISTONS**

- a) Only flat top 4-valve relief pistons are allowed.
- b) Milling of the pistons is not allowed.
- c) No portion of the piston may extend above the block surface.

### **36) RODS**

- a) Steel rods are required.
- b) The rods must be stock OEM or OEM replacement for the engine being used.
- c) Polishing and shot penning is allowed.

### **37) OIL PAN AND OILING SYSTEM**

- a) Only wet sump oiling systems are allowed.
- b) Dry sump and other external oiling systems are NOT allowed.
- c) One inch inspection hole in the left side of oil pan adjacent to # 5 cylinder is recommended for crankshaft and rod inspection without removing oil pan.
- d) Claimer oil pans are allowed.
- e) The oil pan removal may be part of the technical inspection to ensure racing fairness.

### **38) RADIATOR AND OIL COOLER**

- a) Radiator must be in stock location. One per car. Additional electric fan allowed if original pulley system and fans blades are used also. Top of fan blades must be covered.
- b) Aluminum radiators are allowed.
- c) Aluminum and steel water pumps and pulleys are allowed.
- d) Front air ducting to the radiator is allowed.
- e) A catch can must be mounted at the right of the radiator and connected to the over flow spout to catch any over flow from the radiator.
- f) No Ethylene-Glycol or antifreeze type coolants are allowed in a race car while on the track.
- g) "Water Wetter™" may be added to the radiator water to improve engine cooling.
- h) Water may be used without additives as an engine coolant.

### **39) EXHAUST**

- a) Cast iron exhaust manifolds are allowed
- b) Chassis type headers are allowed with 1-5/8-inch tubes and a maximum 3-inch collector.
- c) Over the top and 180-degree headers are not allowed.
- d) Stepped headers are not allowed.
- e) The exhaust must exit behind the driver via a turn down. The exhaust may not exit through the body.
- f) The exhaust pipes may tie together with a crossover pipe.
- g) All cars are required to have exhaust mufflers.

h) The maximum sound reading must not exceed 96 db while the car is under full power. The reading will be made while the car is under full power on the track.

#### **40) CLUTCH AND FLYWHEEL**

- a) A steel scatter shield is required with a 2" inspection hole.
- b) Steel or cast iron flywheel only with minimum weight of 15 pounds.
- c) The minimum clutch disk diameter is 10 inches.
- d) G M engines must have a flywheel with at least 153 start teeth.
- e) G M engine clutch pressure plates must weigh at least 13 pounds.
- f) Aluminum flywheels and clutches not allowed.
- g) The flywheel may not be machined or lightened.
- h) On a vehicle that did not come with a factory manual clutch system an aftermarket system may be added. The clutch linkage and system is subject to approval by the technical inspector.

#### **41) TRANSMISSION**

- a.) An automatic transmission or 3- or 4-speed manual transmission required.
- b.) External transmission oil coolers are allowed.
- c.) Stock diameter and functional torque converters for the year and model car are required – minimum diameter 10-1/2 inches.
- d.) Small diameter or light weight torque converters are NOT allowed.

#### **42) DRIVE SHAFT**

- a) A front drive shaft loop made of 1/8 X 2-inch steel strap is required. Bolt or weld the loop to the chassis within 12-inches to the rear of the front universal joint (u-joint). Allow room for the drive shaft to move with the suspension yet keep the drive shaft inside of the loop if a universal joint should fail.
- b) A steel drive shaft is required.
- c) Carbon fiber, aluminum, and other non-steel drive shafts are NOT allowed.
- d) The drive shaft must be painted white for visibility.

#### **43) REAR END (DIFFERENTIAL)**

- a) Quick change rear ends are not allowed.
- b) The rear ends may be exchanged from one manufacturer to another BUT they must retain the stock OEM mounts for the body being used.
- c) The rear end may be locked, or open but no limited slip™ or performance type.

#### **44) CAR NUMBERS**

- a) All cars must have a registered one or two digit number. The registered number is assigned at the time the driver/owner registers the car with the track officials.
- b) The numbers must be painted a contrasting color to the car. Note: If the scorer cannot read the number, the car receives no scoring. A car could lose a race because the number could not be read clearly by the scorer.
- c) The number placement and sizes are:
- d) Both doors - At least 18-inches in height.
- e) On the Roof - At least 18-inches in height and readable from the grandstands and scorer booth.
- f) On the front and rear window - At least 6-inches in height, readable from the front and rear of the car respectively.
- g) If a number is difficult to read by the scoring personnel, a request will be made to change the number size, color, or location. The number must be readable by the scorer for the car to receive placement points and money.

#### **45) LETTERING**

- a) Sponsor information and driver names are encouraged.
- b) The lettering must not cover or make the number difficult to read by the scorer.

#### **46) RADIOS**

- a) Transponders are strongly recommended.
- b) Two way radio with spotter are optional.