

# American Stock Car Challenge

## Official Rules Rules Subject To Change

### 2006 Rules and Classifications

1. Effective 01-01-2006

#### **Intent**

The intent of these rules is to simplify the preparation of new cars and accommodate existing chassis and equipment to the largest extent possible, with the express purpose of equalizing performance in a racing series that rewards good racecraft.

#### **Sanctioning Body**

The American Stock Car Challenge™ Series (ASC) will be supported and sanctioned by the National Auto Sport Association (NASA). All race events will be governed by the rules set forth by the American Stock Car Challenge Series Director(s) and NASA officials. All competitors agree to abide by the rules set forth in the NASA Club Codes and Regulations (NASA CCR) and any supplemental rules issued by the ASC Series Director(s). Any decision made by the ASC Series Director(s) regarding the status of ASC competitors or their vehicles is final.

#### **Series Registration**

All competitors must register with and join the American Stockcar Challenge series. The 2005 ASC series entry fee will be \$250.00 and shall be submitted prior to the first race the competitor runs which he/she wishes to enter. A complete series registration page must be submitted with a check to the series director(s) prior to the first race. The series entry fee will be used as a points fund, to pay for the administration of the series, to support the website and other marketing tools associated with marketing the series, and for other purposes necessary for the promotion of the series. The series registration form is attached to the bottom of these rules, from any ASC official or director, and also is available on the website, [www.ascracing.com](http://www.ascracing.com).

Individuals may register for the series on a per race basis. The per race fee will be \$50.00 per race weekend, paid in advance at the time of registration, in lieu of the annual \$250.00 registration. This fee is additional to any entry fees or track fees for that particular event.

#### **Safety**

All safety requirements will adhere to NASA standards as detailed in the current NASA CCR. Where the ASC rules and the NASA CCR differ, the ASC rules will supercede the NASA CCR. All vehicles and competitors must be outfitted with proper NASA CCR-compliant safety gear including, but not limited to: legal roll cages, fire suppression systems, harnesses, window nets, safety switches, and proper driver attire. **Head and Neck restraint systems are strongly suggested.**

#### **Overview**

ASC will make every effort to accommodate all competitors' existing equipment for a period of time practical to allow individual competitors time to bring their cars into compliance. This duration will be determined by

ASC directors. Should a competitor require additional time to bring their car into compliance beyond what was allowed by the series directors, specific penalties may be applied to allow the competitor the ability to race with the series. If ASC determines that a non-conforming part offers a performance advantage, specific penalties (such as additional weight), of that car may be increased to equalize performance. It is the competitors responsibility to declare any non conforming parts to the ASC officials in order to receive any waiver of acceptance.

Any modification or component substitution not specifically permitted in these rules is disallowed. If in doubt, it's in the competitor's best interest to seek clarification from the ASC Series Director(s).

Clarifications, issued by the ASC Series Director(s) shall become addendums to these rules. Addendums will be posted on the ASC website [www.ascracing.com](http://www.ascracing.com).

### **Chassis**

- Tubular Late Model Stockcar-style perimeter chassis.
- Front stock clip cars permitted.
- Straight rail cars must be approved by NASA or ASC officials.

### **Body**

- Bodies of 1995 and later Monte Carlo, Lumina, Taurus, Thunderbird, Grand Prix, Charger, and Intrepid are allowed. Other body styles may be allowed at the discretion of ASC.
- Bodies may only be constructed of Fiberglass or metal. • Dimensions of the body must conform exactly to manufacturer specifications.
- Five Star "ABC" "Approved Body Configuration" bodies are strongly requested when changing bodies to a newer style or type body.
- No belly pans, splitters, diffusers, or devices under the vehicle to increase down force or smooth air-flow are allowed.
- **Any motor may be run with any body, HOWEVER, the series request that you run a motor that corresponds to the appropriate manufacturer (style) of the car, (ie: Dodge motor, Intrepid body, Ford Motor, Taurus body).**
- In the interest of promoting the professionalism of the series, all bodies are to be neatly maintained and painted at all times. Body damage is to be repaired as soon as practical.

### **Engine**

- All allowed engines must remain unmodified and conform to the exact OEM build specification, including long block, heads, intake manifold and distributor. Absolutely no internal modifications or component substitutions, other than those listed in these rules, are permitted.
- Existing engines may be repaired or rebuilt **exactly** to manufacturer's original specifications, including individual component type, finish, size, material and weight using only OEM replacement components. (Note required engine supplier rule)
- Fastener brand, but not type or material, may be changed, i.e., after-market head bolts may be substituted in lieu of Chevrolet parts, but they may not be changed to studs.
  - See "Oiling System" for rules on oil pan, pickup, and pump

The following engines will be allowed to compete in the **American Stockcar Challenge** series:

- **Chevrolet ZZ4 355HP Engine Part # 24502609**
- **Dodge (Mopar) Crate engine Part # P5249499**  
Dodge Magnum 360

- **Ford Crate engine Part # M 6007 - A351E (or optional D351E)** (difference is the serpentine or v-belt)
- **Chevrolet ZZ4 Fast Burn Part # 12496769**
- ASC may require that any or all cars be submitted for dyno testing at any time.
- Centerline of the crankshaft shall not be less than 12 inches from the ground.
- Engines may be setback a maximum of 1 inch behind the centerline of the front ball joint to the center of the forward most sparkplug hole.

### **Engine Supplier Requirement**

- Note: Engine Supplier rule only applies to West Coast ASC Competitors.
- All new engines purchased for use in the 2006 season must be supplied by **Watkins Engine Development, 170 Quantico Avenue, Bakersfield, CA 93307 (661) 861-9898**, . Watkins Engine has been chosen as the official ASC engine supplier/repair/dyno shop. These motors will be dyno tested for compliance, sealed, and a copy of the dyno sheet will be sent to the ASC directors for file. All engines purchased or rebuilt will be sealed on the intake manifold, timing cover, and oil pan. These seals must remain intact without exception. ONLY Watkins Engine Development, (or another engine shop specified by ASC officials), is allowed to break the seals to repair the motor.
- Watkins Engine is also the only authorized source to rebuild engines to ASC specifications. Rebuilt engines will also be dyno tested and sealed in accordance with the rules.
- Engines that have been previously used and do not require a rebuild or repair, (defined as requiring the intake manifold, timing cover, heads, or oil pan to be removed), will be inspected at the competitors first race of the year. Provided that the motors appears to conform to the specifications of ASC, the competitors will be issued a set of bolts for the intake, timing cover, and oil pan to be installed, which will then be sealed by NASA or ASC officials. By submitting to the engine inspection, the competitor is certifying that the motor is compliant with ASC rules. In the event of a major failure of the motor, (defined as an event requiring a major rebuild or disposal of the motor due to failed valve train components, rods, camshaft, lifters, bearings, crankshaft, pistons, rings, or similar components), NASA shall have the opportunity and the right to inspect the motor for compliance. A catastrophically failed motor may be required to be removed and given to NASA for inspection, or sent directly to Watkins Engine. The engine will either be returned to the competitor, rebuilt, or disposed of, at the discretion of the competitor.
- Should ANY motor be found to be non-compliant for any reason, sealed or otherwise, the competitor immediately forfeits all season points to date for the year, and may be fined up to \$500, and may be banned from future competition for a period of time, at the sole discretion of NASA and ASC officials.
- The term “*MOTOR*” shall mean the engine as supplied by Watkins Engine Development, or as supplied by the manufacturer as a “Crate Motor”, with any other parts limited, described, or allowed, by the ASC rules, attached directly to the block, heads, intake manifold, of the motor as supplied.

### **Weight**

Minimum weight is the following based on engine used:

- **Chevrolet ZZ4 355HP Engine Part # 24502609- 2700lbs**
- **Chevrolet ZZ4 Fast Burn Part # 12496769- 2800lbs**
- **Dodge (Mopar) Crate engine Part # P5249499- 2800lbs**
- **Ford Crate engine Part # M 6007 - A351E (or optional D351E)- 2800lbs**
- Minimum weight is measured post-race, or qualifying with driver
- All cars must display a legible decal in the lower right of the windshield denoting the minimum weight: “2700 lbs, 2800 lbs.”.

### **Fuel System**

- Only one (1) electric or mechanical fuel pump is permitted.
- Carburetor shall be a Holley Model 4150 HP
- A maximum of a 1-inch carburetor spacer is permitted.
- Other carburetors may be allowed for temporary use at the discretion of ASC.
- An inline fuel check valve must be installed to allow officials to drain fuel from the fuel supply line from the tank to the carburetor for the purpose of checking the fuel.

### **Ignition System**

- The HEI distributor, as provided by the motor manufacturer is the only approved distributor. No modifications or component substitutions are permitted.
- The MSD 6AL system (PN6420) with MSD coil (PN8222 or 8223) may be used in place of the factory coil. A maximum of two (2) MSD 6AL ignitions are allowed. Only one ignition system may be functioning at any time.
- A non-adjustable 6000-RPM limiter (“pill”) must be installed and operational in every working ignition system of the car. Series officials may require a limiter pill draw at any time to ensure compliance with this requirement. ASC may test the function of the limiter chip at any time.
- Voltage to the ignition system must remain at 14.5 volts or less.

### **Oiling System**

- Dry-sump systems are specifically not permitted.
- An oil cooler or heat exchanger system is allowed.
- A pressurized oil reserve system, such as an “Accusump”, is permitted.
- Any Oil Pan that bolts to the block without modification may be used.
- Any OEM style Oil Pickup, and Oil Pump may be used (see exception below).
- An external wetsump pump may be used on the Ford crate motors due to malfunctions of the distributor drive gears. External systems must be approved by ASC.

### **Engine Exhaust**

- Headers must be submitted to ASC for approval. Alternate headers must bolt directly to unmodified ZZ4 spec heads, and fit within the chassis and body. Absolutely no adapter plates or spacer plates of any kind are allowed.
- Muffler(s) are required, and sound levels must conform to the various track regulations.
- No merge collectors are allowed.

### **Flywheel and Clutch**

- Any clutch and flywheel is permitted.

### **Transmission**

- Any manual shift transmission with a **maximum** of four forward gears and one reverse gear is permitted. All gears must be installed and operational.
- Transmission must have a manual disengagement from engine, i.e., clutch.

## **Shocks**

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- The specified shock absorber for the series shall be the “Series AC” PRO-formance Shock, Inc. available through ASC. All competitors must use these shocks. For those competitors with other shocks, they will be allowed to compete in three races in 2006 with their existing shocks before converting to the specified shocks.
- Only shock absorbers, which have a suggested retail price of \$400.00 USD, each, may be used for the three races and may not have external canisters.

## **Wheels**

- Wheels shall be 15 inch diameter by 10 inch width, of steel construction. Minimum wheel weight shall be 18 pounds.

## **Brakes**

- All anti-lock braking devices (manual or electronic) are prohibited.
- Brake rotors must be of a magnetic material, i.e., cast iron or steel.
- Brake rotor diameter and thickness are open.
- Calipers are open.
- Brake fluid recirculators are permitted.
- One (1) manual front/rear brake bias device is permitted.

## **Tires**

- The only approved tire is the Goodyear D2603, 27.0 X 10.0-15.
- Competitors will be allowed one (1) set of four (4) tires per race weekend.
- The set of four (4) tires must be submitted to the ASC tech official for marking no less than thirty minutes prior to the first qualifying session of each event.
- Tires marked for that event must be installed on the car for all qualifying and race sessions. Tires and rims are unrestricted for practice sessions only.
- If a tire is damaged, a competitor will be allowed to submit a used tire to ASC for approval. The replacement tire will be marked and exchanged for the damaged tire.
- Within the context of these rules, “used tire” means a tire that has been marked for use at a previous ASC event, and specifically excludes all other tires.
- Rain tires will be allowed only if a race declared a “Rain Race” by ASC. For the duration of that race only, competitors may substitute any tire that mounts on the spec rim.
- For the purpose of any qualifying “race”, (not timed qualifying event), any previously “marked” 2403 tire is allowed.

## **Driveline**

- The driveshaft must be a minimum diameter of 2.75” of steel construction.
- Two driveline loops capable of containing the driveshaft in event of failure are required.
- Only one-piece driveshafts are permitted.

## **Data Acquisition**

- All data acquisition devices are prohibited.
- An in-car-timing device, which has the sole function of lap/elapsed time display, will be permitted.

### **Cockpit**

- No in-car devices, which allow change and/or adjustment of suspension or chassis, including wings, spoilers and anti-roll bars, are allowed.
- Only one (1) brake bias device accessible to driver during operation of vehicle is allowed.
- The cockpit, from the top of the door panels downward for an entire 360 degrees horizontally from driver, shall be of 20-gauge steel or 14 gauge aluminum. It must be securely fastened and sealed from the exterior.

### **Fuel**

- ASC reserves the right to have all cars use the same brand of gasoline at any given event.
- The official fuel, in all cases, fuel used for practice, qualifying and races, will be supplied by the official fuel supplier. The fuel must be used exactly as supplied by the “official fuel” suppliers dispensing equipment at the track.
- All competitors shall install a device or valve inline between the pickup inside the tank and the fuel pump capable of allowing tech officials to draw off fuel for the purpose of testing to ensure compliance.
- No after market fuel additives of any type may be used at anytime. The fuel must be as it came out of the drum or pump.

### **Fuel Cell**

- Fuel to the engine must be supplied by one (1) fuel supply source i.e., a fuel cell.
- Competitors are encouraged to use fuel cells of 22 gallons, installed in an approved metal container, equipped with a rubberized bladder, will be permitted.

### **Wheel Base**

- Permitted wheelbase is 101 inches to 110 inches.

### **Track Width**

- All cars must maintain a maximum allowable track width of 64 inches front and rear. Measured at center of tire, at spindle height, front and rear of tire, and averaged to determine actual track.

### **Sway Bars**

- Front and rear sway bars of any dimension are permitted.
- No in-car adjustment devices are allowed.

### **Ground Clearance**

- A minimum clearance of four (4) inches from chassis, sheet metal, and front air dam, to the ground, must be maintained with car at rest on level ground, at minimum weight (see heading “Weight”). Oil pan sump is considered sheet metal.

## **Rear Spoiler**

- All cars must use a non-adjustable rear spoiler 6.5 inches in height and 60 inches in width.
- The spoiler must follow the contour as the rear of the car, maintain a minimum angle of 50 degrees and control air flow over one (1) surface only. Series officials may specify a different spoiler angle for specific tracks if deemed necessary. Spoiler angle shall be measured with rear deck level.
- Spoilers may be solid one-eighth inch metal or one-quarter inch flat clear plastic.

## **Windshield/Windshield Bracing**

- The windshield must be a minimum of 1/8 inch thick and have a minimum of three (3) metal straps or braces 1/8 inch by one (1) inch installed inside the windshield. The straps must be fastened to the roof panel or roll bar at the top and dash panel at the bottom. Windshields must be pop-riveted or bolted in place, and are required to be in place at all times.

## **Rear Window**

- The rear window must conform to manufacturers shape and dimensions, and retain the original shape while in competition. It must be secured with a minimum of two (2) metal straps not less than 1/8 inch thick by one (1) inch wide, evenly spaced, and fastened to the roof at the top and the deck support panel at the bottom.

## **Hood**

- An opening 2-1/2 inches by 20 inches, may be cut in the hood behind the carburetor air cleaner to allow fresh air to the carburetor.
- No front facing cowl hoods, ram air hoods, or hoods modified for the purpose of inducting cold air to the engine are allowed.

## **Numbers**

- Only single or double-digit numbers will be permitted. The size, color, and style of numbers must permit prompt identification. All cars shall have the numbers prominently displayed on both door panels, above the rocker panel and a minimum of 3 inches below the top of the door panel. Required front and rear numbers shall be a minimum of 5 inches in height and 1 inch thick and placed on the front bumper, to the right of the centerline, but before the bumper turns toward the side of the car so that the number is facing clearly forward. Rear number must be placed on the rear of the car, to the left of centerline and before the rear quarterpanel so that the number is facing rearwards, and is clearly visible by another driver seated in an ASC car behind.
- All car numbers will be assigned by ASC administration and will be assigned on a first-come, first-served basis. Competitors will be allowed to run the same number as the most recent previous year, provided that they; a) reserve the number prior to the first race of the season with the series director(s), b) they pay the series entry fee prior to the third race of the season.

## **Pits and Paddock**

The competitors' pit and paddock area is to be neatly maintained while at an event. Trash and oil/fuel/fluid spills are to be rapidly and neatly contained and cleaned. Passageways and walkways are to be kept free of obstructions. Crew members, drivers, owners, guest and family are to be courteous and well behaved to all

visitors, other competitors, (whether ASC competitors or not), sponsors, officials and the public in general. ASC is seeking to establish the most professional atmosphere possible and your assistance will be greatly appreciated. Unsportsmanlike behavior by drivers, crew members, guest, family, or any other person associated with the driver and/or crew will not be tolerated and will result in disqualification, suspension, or other fines or penalties, as determined by NASA and/or ASC officials, at the sole discretion of such officials.