

2012 B-Cadet (street/pro stock) (regular event rules)



All cars must have wrecker hookup. All cars should have 5 pound minimum fire extinguisher in reach of driver. All drivers should wear flame retardant fire suit, shoes and gloves. Window nets are highly recommended. No radios, communication equipment or mirrors, including pit boards. No computer controlled equipment allowed on any car.

ALL CARS rules that are not highlighted apply for all cars at all events including the Top Category!

Gray highlighted rules apply to regular events ONLY specified as B-Cadet.

Green highlighted rules apply for all Standard 3,050 weight cars at all events specified as B-Cadet or A-Cadet.

Blue highlighted rules apply for all Spec 2,900 weight cars at all events specified as B-Cadet or A-Cadet.

Purple highlighted rules apply for all Crate 2,750 weight cars at all events specified as B-Cadet or A-Cadet.

****Yellow highlighted rules for Top 3,200 weight cars will be permitted only at Speedmonster events specified as A-Cadet.****

ALL CARS—Cars receiving weight breaks must meet all Motor, Carburetor, Transmission and Frame specifications listed with the designated weight. All parts specified as OEM/stock manufactured must be standard option parts or equivalent aftermarket parts and must be readily available from car dealer or any auto parts store. Casting numbers must remain on all OEM/stock parts

1. FRAME

ALL CARS—**106"** minimum wheelbase except for cars with 8" maximum tire treadwidth. No round tubing snouts or frames. No offset frames on any car! Unibody frames using rear subframe should have full snout and rear subframe steel rectangular tubing connector rails. Unibody connector rails should be connected to the back of the front snout and the front of the rear subframe. Unibody frame may be shortened in the tub area. All frame tubing should be constructed of minimum **2"** wide x **3"** high rectangular steel tubing, with **.120"** minimum material thickness in front of rear axle when permitted and **.095"** minimum material thickness behind rear axle. All other chassis tubing should be **1 1/2"** to **1 3/4"** outside diameter and minimum **.083"** thickness. No holes may be cut in frame or connectors.

ALL CARS—Car should have horizontal safety bar constructed from same steel tubing as frame, mounted behind fuel cell and securely welded to frame. Rear bumper should be at least **4"** behind fuel cell. Center of rear bumper and safety bar should be at rear deck center height, approximately **19"** from the ground and should be at least as wide as frame. Tubing should also extend downward to form a horizontal bar at the bottom height of the fuel cell, with additional vertical and diagonal tubing bracing the lower tubing to the rear bumper and the safety bar. Lower tubing should be at least as wide as fuel cell. No part of the fuel cell should be below the protective tubing. Any bumper that extends more than **8"** from the rear of frame should be rounded and directed toward the front of car. Loop-style rear bumpers—OK. Bumper should not have any sharp edges. No external rub rails.

ALL CARS with 8" maximum tire tread width in any weight category: Full tubing, stock appearing frame permitted constructed from minimum **2"** wide x **3"** high rectangular steel tubing with **.120"** minimum material thickness. **103"** minimum wheelbase on **8"** maximum tire tread width cars.

Standard 3,050 weight—Complete OEM stock frame or www.johnsonchassis.com XYG aftermarket production, metric OEM-copy frame to center of rear axle required. Cross member may be modified for clearance only on all frames. No other frame rail modifications from front of snout to center of rear axle.

Spec 2,900 weight—Complete OEM stock frame or www.johnsonchassis.com XYG aftermarket production, metric OEM-copy frame to center of rear axle required. Cross member may be modified for clearance only on all frames. No other frame rail modifications from front of snout to center of rear axle.

Crate 2,750 weight—Complete OEM stock frame or www.johnsonchassis.com XYG aftermarket production, metric OEM-copy frame to center of rear axle required. Cross member may be modified for clearance only on all frames. No other frame rail modifications from front of snout to center of rear axle.

2. TIRES

ALL CARS at all events—**16 3/4"** maximum cross section, any compound. Tires must have all manufacturer's stamps intact. Specified spoiler permitted on cars with **8"** maximum tire tread width.

Compound rule for ALL CARS at regular events ONLY—32 minimum tire hardness after race, verified by durometer. Only American Racer 44, Hoosier 15/1300 or harder compounds permitted—no softer compounds allowed. Hoosier FT200, FT400 and FT600—OK. The track durometer is the official measuring device. 11" maximum circumference grooving—no tolerance. No buffing or taping over tire size markings.

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3. WHEELS

ALL CARS—12" maximum steel only. No aluminum, plastic wheels, carbon fiber wheels. Beadlocks—OK. Wheels must be held on by bolt-type lug nuts, no knock-off type mounting permitted. No 5-wide type mounting permitted. 86" maximum outside width at wheels with wheels pointed straight.

4. SUSPENSION

ALL CARS—Racing springs, racing shocks, aftermarket tubing upper a-arms. Weight jacks—OK. No coilovers. No driver-controlled weight jacking equipment or computer or electronic suspension components. No straight front axles.

Standard 3,050 weight—Non-adjustable, OEM stock lower A-arms or www.johnsonchassis.com rectangular tubular, aftermarket lower A-arms with stock dimensions. Suspension mounting points may be relocated except lower A-arm must be in stock position. Steel, non-adjustable shocks only. Stock 4-link—OK. No other 3, 4 or z-link suspensions. Aftermarket trailing arms—OK. No panhard bars or lift bars. No other torque absorbing rear suspension equipment of any kind.

Spec 2,900 weight—Non-adjustable, OEM stock lower A-arms or www.johnsonchassis.com rectangular tubular, aftermarket lower A-arms with stock dimensions. Suspension mounting points may be relocated except lower A-arm must be in stock position. Steel, non-adjustable shocks only. Stock 4-link—OK. No other 3, 4 or z-link suspensions. Aftermarket trailing arms—OK. No panhard bars or lift bars. No other torque absorbing rear suspension equipment of any kind.

Crate 2,750 weight—Non-adjustable, OEM stock lower A-arms or www.johnsonchassis.com rectangular tubular, aftermarket lower A-arms with stock dimensions. Suspension mounting points may be relocated except lower A-arm must be in stock position. Steel, non-adjustable shocks only. Stock 4-link—OK. No other 3, 4 or z-link suspensions. Aftermarket trailing arms—OK. No panhard bars or lift bars. No other torque absorbing rear suspension equipment of any kind.

5. DISTRIBUTOR

ALL CARS—No magnetos permitted on any car. OEM stock distributor or MSD systems allowed. HEI permitted.

6. CARBURETOR

Carburetor rule for ALL CARS at regular events ONLY—One 2 barrel carburetor with 500 cfm limit. No modifications except chock plate may be removed. 1.375 maximum throttle bore at venturi. 2" maximum carburetor spacer.

7. TRACTION CONTROL

ALL CARS—All traction control devices using wheel sensors are NOT permitted. Adjustable ping control devices, dial a chip controls, timing controls or automated throttle controls are NOT allowed in the cockpit or any other location accessible by driver. Any remote control components or data acquisition equipment are NOT permitted.

8. REAR AXLE

ALL CARS—Any type stock production rear end. Floater—OK. Locked rear end—OK. 9" rear end permitted. No quick changes.

9. TRANSMISSION, DRIVE SHAFT & CLUTCH

ALL CARS—Transmission should have explosion-proof bell housing or 360 degree ½" steel scatter shield securely mounted to car. No in and out boxes. Standard transmission must have operational clutch. Clutch should have scatter shield. Transmission should be bolted to the motor and must have working reverse gear. Only one drive shaft permitted. All drive shafts should be painted white and should be surrounded by two 3" steel safety loops or sling mounted to frame.

Standard 3,050 weight—Transmission must be OEM stock and automatics must have working OEM torque converters. OEM stock steel clutch/flywheel only. No racing or lightweight clutch/flywheel. Steel triple disc clutch—OK.

Spec 2,900 weight—Transmission must be OEM stock and automatics must have working OEM torque converters. OEM stock steel clutch/flywheel only. No racing or lightweight clutch/flywheel. Steel triple disc clutch—OK.

Crate 2,750 weight—Racing transmission, OEM transmission without working OEM torque converter and racing, or lightweight clutch/flywheel—OK.

10. FUEL

ALL CARS—Gasoline only. No alcohol, nitrous oxide, nitro-methane or propylene oxide. No electric fuel pumps or pressurized fuel systems. Mechanical or belt-driven fuel pumps only. Fuel lines should not pass through driver's compartment.

11. BRAKES

ALL CARS—All cars must have 4 wheel braking system. Calipers and rotors must be steel.

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12. EXHAUST

ALL CARS—Headers permitted. Exhaust pipes may NOT point towards ground. Mufflers are HIGHLY recommended for all cars.

13. STARTER AND BATTERY

ALL CARS—All cars must be self starting. Failure to start during a race will result in disqualification. Battery should be located in a safe area and covered with a metal fireproof box. Battery should not be in driver compartment. Battery disconnect kill switch to shut down motor highly recommended, mounted in reach of driver and should be clearly labeled for safety crew.

14. MOTOR

ALL CARS—V8 motors only. Motor must be stock appearing. 1 spark plug and 2 valves per cylinder. No titanium or exotic metal parts. No fuel injection, turbo chargers or blowers. .

Standard 3,050 weight—412 cubic inch limit. 1" maximum motor setback measured from left front spark plug to center of ball joint. Cast iron block. No roller cams or lifters. Roller rocker arms permitted. Any intake except tunnel ram. Any type steel or aluminum pistons permitted. No dry sumps if tire tread width is over 8". Dry sump permitted on cars with 8" maximum tire tread width.

Head rule for 3,050 weight cars with tire treadwidth over 8": OEM stock cast iron heads, World Products S/R Torquer #i-052, #i-056, #i-058, #4265, #4266, #4267, #4360, #4362, #5302, and #5303 or RHS #12407. No GM angle plug heads or aftermarket high performance heads (Bowtie, W2, GT40, SVO, Performance, etc.). GM Vortec heads permitted in stock form if used on a production vehicle. Vortec #25534371 and #25534351 are not permitted. No altering of heads or angle milling. Minimum 60cc combustion chamber except World Products #5303 may be 58 minimum cc. No porting or polishing heads or manifold except port matching of the intake runner 3/4" from the manifold interface is allowed.

Head rule for 3,050 weight cars with 8" maximum tire tread width: Any cast iron head permitted. No altering of heads or angle milling. No porting or polishing heads or manifold except port matching of the intake runner 3/4" from the manifold interface is allowed.

Spec 2,900 weight—360 cubic inch limit. 1" maximum motor setback measured from left front spark plug to center of ball joint. OEM stock cast iron block. World Products Motown #084011, or #084111, World Products Man O War #087150, #087152, #087170 #087172, Dart Sportsman Little M #31151111 aftermarket blocks permitted. Factory ID numbers must be on block. No CNC lightening of blocks. Any intake except tunnel ram. No polishing grinding, cutting or porting to intake. No roller cams or lifters. Roller rocker arms permitted. Stock crankshaft stroke with .400 maximum lobe lift. 5.7" or 6.0" connecting rods. Steel or aluminum flat top or inverted pistons with zero deck clearance. No dry sumps if tire tread width is over 8". Dry sump permitted on cars with 8" maximum tire tread width.

Head rule for 2,900 weight cars with tire tread width over 8": OEM stock cast iron heads, World Products S/R Torquer #i-052, #i-056, #i-058, #4265, #4266, #4267, #4360, #4362, #5302, and #5303 or RHS #12407. No GM angle plug heads or aftermarket high performance heads (Bowtie, W2, GT40, SVO, Performance, etc.). GM Vortec heads permitted in stock form if used on a production vehicle. Vortec #25534371 and #25534351 are not permitted. No altering of heads or angle milling. Minimum 60cc combustion chamber except World Products #5303 may be 58 minimum cc. No porting or polishing heads or manifold except port matching of the intake runner 3/4" from the manifold interface is allowed.

Head rule for 2,900 weight cars with 8" maximum tire tread width: Any cast iron head permitted. No altering of heads or angle milling. No porting or polishing heads or manifold except port matching of the intake runner 3/4" from the manifold interface is allowed. No porting or polishing heads or manifold except port matching of the intake runner 3/4" from the manifold interface is allowed.

Crate 2,750 weight—GM crate motor part #88958602. 1" maximum motor setback measured from left front spark plug to center of ball joint. Wet sump only. No external oil pumps. Motor must be purchased from an authorized dealer and MUST remain sealed at all times. GM factory encrypted bolts cannot be altered, removed or changed except by an authorized repair center. Absolutely no modification of any internal engine part. All motor parts included with the motor as shipped from GM must remain OEM and may NOT be modified including but not limited to: valve springs, push rods, harmonic balancers, rocker arms, valve covers etc. No upgrades are allowed that may produce power via performance enhancing methods including breather system modifications. No machine work permitted. Any motor modification will result in one year suspension and loss of all points and winnings. Any GM bolts that have been copied is considered trademark infringement and will be reported to the manufacturer for legal proceedings. Motor service or reassembly after tear down may only be performed at an authorized repair center and motor must be resealed with GM factory encrypted bolts. All motor repairs must be done with the same GM motor parts, listed in GM book part #88958668. By using a crate motor in competition, the race team acknowledges all responsibility for the legality of the motor upon inspection at any event regardless of any previous motor verification.

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15. BODY

ALL CARS—Body must be stock appearing and meet all specifications listed on diagram. **All body panels must be solid and must be made of metal or plastic—no holes, gaps, slots, perforated materials etc. Aluminum or steel body panels—OK.** Body and deck must have a flowing line from front to rear. **40"** maximum deck height OR **4"** maximum deck height increase from center of front wheels to rear of car. **48"** maximum rear quarterpanel length measured from center of rear wheel including bumper. **4"** minimum ground clearance. **2"** minimum clearance around wheels. **No** ridges, fins or raised edges on body except roof bead rolls.

ALL CARS—Fenders must be level from side to side. Quarterpanels must be same length and cannot extend higher than rear deck. Rear deck must extend between quarterpanels and may not extend past quarterpanel. Skirting may not extend behind quarterpanel. Quarterpanels and doors may not dish inward.

ALL CARS—**80"** maximum body width at all points. All fenders, doors and quarterpanels should roll inward **½"** to **1"** at top, with sides over upper body. No sharp or jagged edges, fasteners, etc. No wings or tunnels permitted under body or chassis. Unapproved bodies may be assessed a 50 pound weight penalty.

16. ROOF

ALL CARS—Minimum **44"** long x **48"** wide. Maximum **60"** long x **60"** wide. **45"** minimum height from ground. Roof must be mounted near center of car, parallel to deck and level. Roofline and side panel window contours should be stock appearing and match nosepiece. Roofline should be rounded—no, wedge, bellied or hollow roofs. Flat roofs may have **2"** maximum height variance from front to rear. Rounded roofs may drop **5"** at the front and **2"** at the rear from the break point.

ALL CARS—Rear roof and front roof supports mandatory. Rear roof supports may extend **41"** from rear of driver's side window. Rear roof supports may extend **15"** maximum behind center of axle. Rear roof supports must taper downward evenly both to the rear and side with a **2"** maximum outward bow. **17"** maximum at top of rear roof support. **10"** high x **15"** long minimum rear support window is optional and recommended for appearance. Rear support window may be filled with clear lexan. **2"** minimum front roof post width, **4"** maximum. Front roof post braces may extend **7"** vertical and horizontal.

ALL CARS—**12"** minimum door window opening height measured from deck to roof. **1.5"** maximum roll down permitted along front and rear edge of roof. **½"** maximum bead rolls permitted on roof running from front to rear in direction, **4** maximum including edge bead rolls. Unapproved roofs may be assessed a 25 pound penalty.

17. NOSEPIECE, HOOD AND BUMPER CAP

ALL CARS—Molded stock appearing nosepiece required made of flexible material. **15"** minimum nosepiece height measured from bottom of nosepiece to where sheet metal is attached, following the angle of the nosepiece. Must be mounted level. **52"** maximum nosepiece extension including front bumper measured from center of front hub with wheels turned straight. **80"** maximum nosepiece width. Fender flare cannot extend higher than fender. **4"** minimum ground clearance. 25 pound penalty for unapproved nosepieces.

ALL CARS—Hood should be secured by **3** hood pins. Rear of car must be completely enclosed from deck to top of bumper with sheet metal or molded rear bumper cap, **10"** minimum height. Rear panel/cap must extend from quarterpanel to quarterpanel and must be solid with no gaps, holes, etc.

18. SPOILERS *Spoiler measurements may be adjusted during the season for competition.*

ALL CARS at all events—No spoilers on any kind on cars with BOTH tire tread width wider than 8" AND 4 barrel carburetors!

Spoiler rule for ALL CARS at regular events ONLY—8" spoiler permitted at all events for cars with BOTH 8" maximum tire tread width AND 2-barrel carburetor with 500 maximum cfm meeting all listed specifications.

ALL CARS—When permitted, **8"** maximum vertical spoiler height measured from top of rear deck and **8"** maximum spoiler length measured along the angle of the spoiler. **8"** maximum side spoiler height from rear of side spoiler to **6"** forward of rear of side spoiler. **3"** maximum height at front of side spoiler. **12"** maximum side spoiler length. Spoiler may be no wider than deck. **No** other spoilers, ridges or wings permitted on any car.

19. ROLL CAGE

ALL CARS—4-post, box-type roll cage should be constructed of **1 ½"** minimum outside diameter and **.095** minimum thickness steel tubing. Roll cage should have at least **3** horizontal bars at driver's side door and **2** horizontal bars at passenger side door, extended outward into door panels with **2** vertical bars between each horizontal bar as additional support. An extra vertical side brace bar is recommended on the left side in line with steering wheel. Door bars should be **1 ½"** in diameter with a minimum thickness of **.065**. Both door window areas should remain open and unblocked by roll cage bars for easy exit. Roll cage should extend forward on driver's side to protect foot area completely. Roll cage should be welded to frame in at least **6** places (in addition to diagonal bracing) and welded together at all intersecting points. Diagonal bars should brace roll cage at rear, and should run from frame to top of roll cage.

ALL CARS—Top of roll cage should be at least **2"** above top of driver's helmet. All areas of the cockpit should have at least **11"** to **12"** of clearance below the roll cage and roof. All roll cage bars within reach of driver should be covered with non-flammable foam padding certified to SFI spec **45.1**. Other than padding, roll cage must remain exposed above top of door with no aerodynamic effects. Right-side padded headrest or head net recommended attached to roll cage. Bars or wire mesh in windshield and driver's side quick-release window net certified to SFI spec **27.1** are highly recommended.

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20. FUEL CELL

ALL CARS—Racing-approved fuel cell should have **32** gallon maximum capacity and should be securely mounted inside a **20** gauge steel or **.060**” aluminum metal box and secured to frame with a minimum of two **2” x 1/8”** thick steel straps around entire fuel cell. **Minimum 7/16”** bolts should be used to mount the fuel cell. The fuel pick up should be on the top or right side of the fuel cell, be constructed of steel and should have a check valve in case of roll over. Fuel cell should be mounted in square tubing frame. Fuel cell should be mounted behind the rear axle and between the rear tires, at least **4”** in front of the rear bumper. **9”** minimum fuel cell ground clearance. **No** part of the fuel cell may be lower than the rear end housing. Car number must be displayed on fuel cell, **6”** minimum height .

21. FIREWALLS AND INTERIOR

ALL CARS—A full metal firewall constructed from **18** gauge steel or **1-1/8”** thick aluminum should be joined to seal off driver compartment at front, rear, sides and floorboard. Full metal floorboard. Top of interior may be maximum of **4”** below top of doors. The start of the dropped interior should remain closed as part of the firewall. The interior must taper up gradually to be even with the rear quarterpanel and level for **20”** from rear of deck and quarterpanel. Interior must be mounted flush with outside body panels. Interior clearance should be **11” to 12”** minimum below roll cage at all points for easy exit. Onboard fire suppression system recommended.

22. SEAT AND SAFETY BELT

ALL CARS—Full containment, metal racing-approved seat with padded headrest should be securely attached to frame. **3”, 5, 6** or **7**-point, quick release racing belt with double harness certified to SFI spec **16.1**. **7**-point system is highly recommended. Seat and belts should be mounted to the chassis with grade **5** or better hardware. Mounts should run in the same direction to secure the belt. Belt should not come in contact with sharp edges. Safety belts should be replaced if 2 years old, and all worn or damaged safety belts should be replaced. Quick-release, racing-type steering should be used.

23. FIRE SUIT AND HELMET

ALL CARS—Drivers should have flame retardant firesuit certified to SFI spec **3.2A/5** and racing approved full-face helmet with face shield certified to Snell **SA2000**, SA2005 or **SA2010** standard or SFI spec **31.1A**, **31.1/2005** or **31.1/2010**. Gloves certified to SFI spec **3.5/5** highly recommended. Nomex shoes, socks, and hood highly recommended. Head and neck restraint system certified to SFI spec **38.1** and arm restraints are highly recommended.

24. WEIGHT

Weight limits may be adjusted during the season for competition.

3,050 pounds for cars meeting all Standard **412** specifications.

2,900 pounds for cars meeting all Spec **360** specifications.

2,750 pounds for cars meeting all **602** Crate specifications.

ALL CARS—Weight limit includes driver after the race. **No** tolerance. All weights should be solid material, entirely painted white or a bright color and marked with car number. Each weight should be **50** pound maximum. Weights should be bolted to frame with two **1/2”** Grade **5** bolts on two weight clamps or secured with steel plate. **No** weights should be attached to rear bumper or in driver’s area. Weights should not be lead pellets or liquid. Each weight should be bolted to the frame individually and should not be stacked on another weight.

RULEBOOK DISCLAIMER: The rules and/or regulations set forth herein are designed to provide for the orderly conduct of racing events and to establish minimum acceptable requirements for such events. These rules shall govern the condition of all events, and, by participating in these events, all participants are deemed to have complied with these rules. **NO EXPRESSED OR IMPLIED WARRANTY OR SAFETY SHALL RESULT FROM PUBLICATIONS OF OR COMPLIANCE WITH THESE RULES AND/OR REGULATIONS.** They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to a participant, spectator or official. The race director shall be empowered to permit reasonable and appropriate deviations from any of the specifications herein or impose any further restrictions that in his opinion do not alter the minimum acceptable requirements. **NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM SUCH ALTERATION OF SPECIFICATIONS.** Any interpretation or deviation of these rules is left to the discretion of the officials. Their decision is final.

2011 B Cadet GM Crate Motor Specs



GM 602 350/350

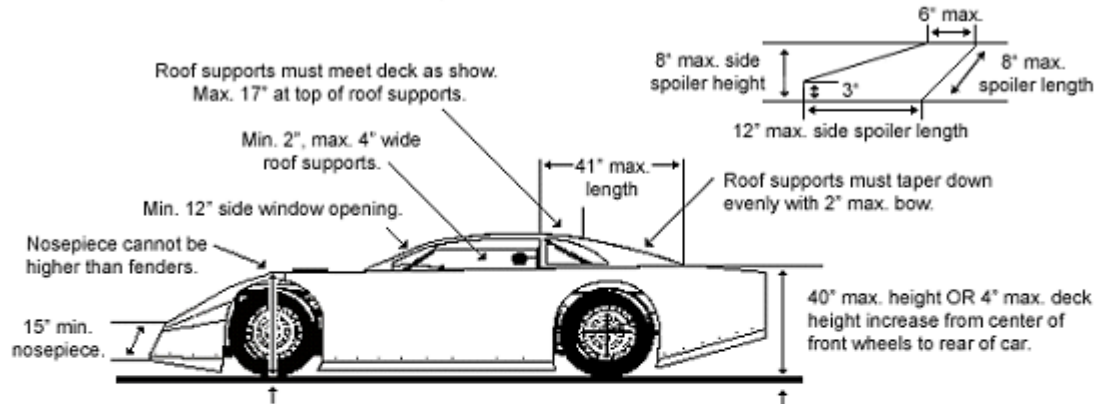
Block part number	#10105123
Block type	cast iron with 4-bolt main caps
Bore x stroke (in)	4.00 x 3.48
Camshaft duration (@.050 in)	212 degree intake / 222 degree exhaust
Camshaft lift (in)	.435 intake / .460 exhaust
Camshaft part number	#24502476
Camshaft type	hydraulic flat tappet
Compression ratio	9.1:1
Connecting rod part number	#10108633
Connecting rods type	powdered metal steel
Crankshaft part number	#14088526
Crankshaft type	nodular iron
Cylinder head part number	#12558060
Cylinder head type	vortec iron; 64cc chambers
Displacement (cu in)	350
Engine name	Circle Track 350/350
Engine type	Chevy small-block V-8
Ignition timing	32 degree total @ 4000 rpm with vacuum advance disconnected
Maximum rpm	5500
NOTE	Distributor included with 350/350 engine has melonized steel gear part number #10456413. This MUST be used with engines with steel camshafts, or engine damage will occur.
Piston part number	#12514101
Pistons type	hypereutectic aluminum
Recommended fuel	92 octane
Rocker arm ratio	1.5:1
Rocker arms part number	#10089648
Rocker arms type	stamped steel
Valve size (in)	1.94 intake / 1.50 exhaust

2012 B & B Cadet Body Specifications

Spoiler permitted on cars with 8" maximum tire tread width at all events.



Spoiler and side spoilers permitted only on 8" tire cars OR cars with 2 barrel carburetors.
NO spoilers on cars with tires wider than 8" or cars with 4 barrel carburetors.



If deck height is over 40", the max. height increase from the center of the front wheels to the rear of car is 4".

