2012 Waterford Speedbowl
SK Light Modified Rules
(Last Updated: 12-24-11)

All items marked in **RED** are new and/or are wording changes to the **2012 SK Light Modified rules.**

The 2012 Waterford Speedbowl SK Light division is a merger of the SMS SK Lights and the WSB X Mods. The rules posted below are the 2012 WSB SK Light rules. We will also allow X Mods, per the 2011 WSB X Mod rule book to compete. Either set of rules may be utilized, but you may not cross or blend the two formats. Every effort will be made to ensure equal competition between the two, with adjustments made to the X Mod division cars to make their competition level compatible with the existing SK Light division.

2012 will be the final season for X Mods to compete in the Waterford Speedbowl SK Light division.

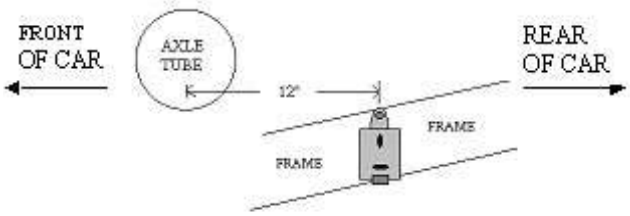
By registering as an owner or driver you agree to be knowledgeable and bound by the contents found in these divisional rules and in the General Rules.

8.0 GENERAL DIVISION RULES:

A) In the following rules you will see the term “stock OEM” used. This means “original equipment manufacturer”. These parts must come on a standard production car.
B) No carbon fiber or titanium parts allowed.
C) None of the following will be allowed in or on any engine or driveline component or part: abrasive cleaning, acid dipping, chemical milling, coating, epoxying, finishing, grinding, painting, plating, polishing, porting, etc.
D) The rules herein are for Waterford Speedbowl only, with no expressed or implied agreement with any other Division or Speedway as to their interpretation and/or method of inspection.
E) All equipment must be approved by track officials. No equipment is considered to be approved by reason of having passed through a technical or safety inspection unobserved. No car will be considered as having passed inspection for the event until the finish is made official.
F) All engine models, equipment changes, or modifications not specifically addressed in this rule book must be submitted to the Waterford Speedbowl for consideration of approval prior to competition.
G) All equipment is subject to the approval of Waterford Speedbowl Officials.
H) Once a car has been presented to Waterford Speedbowl Officials for post race inspection the entire car and all of its components become subject to inspection. This includes but is not limited to items designated for inspection following a particular event
I) All rule changes and updates made during the course of the season for the current rulebook will be posted to Waterford Speedbowl website (www.speedbowl.com). This will serve as the only form of official notification until the printing of the **2013 Waterford Speedbowl rule book.**

8.0.1 SCORING TRANSPONDER LOCATION:

Transponder mounting brackets will be installed on the inside (or outside) of the right rear frame rail. The round post of the bracket must be on top and the square tab on the bottom flush with the lower edge of the frame rail. The bracket must be mounted with its center line exactly 12” to the rear of the rear axle centerline and must be completely vertical to the ground. Transponders are required on the cars at all times. Any car not registering a transponder signal during practice will be black-flagged to be made aware of their scoring transponders failure and is required to remedy it before proceeding further in the event.



Transponders are available from: AMB, US, Inc 32 Highlands Parkway, Suite 104 Smyrna, GA 30082
Tel 678-816-4000 Fax 678-816-4001

DRIVER ELIGIBILITY:
All drivers must have a valid 2012 NASCAR Charger Division Driver or higher driver's license. Drivers may be a minimum 14 years of age (only pending approval from the Race Director) to compete in the SK Light division.

APPROVED COMPETITION MODELS:
Approved model bodies are listed in the **WSB 2012 SK Modified rulebook**. Other models may be approved for the SK Light division providing they are the same in body configuration and meet the spirit and intent of these rules.

OVERALL CAR WEIGHT:
All specified weight requirements will be with the driver. The minimum weight at all times will be 2625 pounds. The minimum weight for cars using the Mahle/Clevite pistons will be 2650 pounds. No car will be allowed to have more than 56% of the total weight as the left side weight.

ADDED CAR WEIGHT:
Added weight must be in block form magnetic steel or lead only of no less than five (5) pound blocks (no pellets). Added weight must be securely bolted to the frame rail and painted white with the car number on it. No added weight will be permitted inside the driver's compartment. Weight must be welded in a box or attached with two or more 7/16" diameter grade-8 bolts.

CAR WEIGHTS AFTER RACE:
Nothing may be added to or taken from the car to make total or left-side weight. Gas, oil or water may not be added. Wheels and tires cannot be changed, but an amount equal to one half of one percent (.5%) of the gross weight will be added for loss in weight due to race wear.

SIDE WINDOW GLASS/WINDOW SCREEN:
All door window glass must be removed. A nylon window screen must be installed in the left side door window opening and be positioned to cover the entire window opening. Window screens should not be used beyond three (3) years from the date of manufacture. The window screen must be rib type, made from minimum ¾ inch, maximum one (1) inch wide nylon material with a minimum one (1) inch and a maximum 2-1/4 inches square opening between the ribs. The minimum window screen size must be must be 22 inches wide by 16 inches high. All window screen mounts must be a minimum ½ inch diameter solid steel rod on the bottom and a minimum one (1) inch wide by 3/16 inch thick flat steel or a minimum ½ inch diameter solid steel rod on the top, with mounts welded to the roll cage. The window screen, when in the closed position, must fit tight and be secured with a lever-type quick release latch acceptable to Track Officials. The lever must be secured by a detent ball in the lever and may be supplemented by

Velcro® fastener only – pins or clips will not be permitted. The latch must mounted at the top in the front to roof bar (#3) release from the inside.

REAR VIEW MIRROR:
One (1) rear view mirror that must be mounted at the top of the windshield area no larger than 8” X 2”. No multi-image. If running a head and neck restraint system, you may run a 14 "x 2 "mirror, if not it must be no larger than 8" X 2". No multi-image. Side view or spot mirrors are permitted. Oversized mirrors maybe blacked out by the use of paint only, to obtain the 8” X 2” maximum reflective area.

DOORS:
All door panels must be made of magnetic sheet steel or aluminum. For additional specifications see the **WSB 2012 SK Modified rulebook**.

QUARTER PANELS:
All quarter panels must be made of magnetic sheet steel or aluminum. For additional specifications see the **WSB 2012 SK Modified rulebook**.

HOODS / ROOF:
The roof panel may be steel or fiberglass. For additional specifications see **the WSB 2012 SK Modified rulebook.**

IDENTIFICATION:
All car number configuration and design is subject to approval by the Race Director. Only single or double-digit numbers will be permitted. The size, color, and style of numbers must be adequate to permit prompt identification by NASCAR Officials at all times. Numbers must be solid color, at least 18 inches high, measured vertically, excluding borders and silhouettes, must be neatly attached to or painted on both sides of the car on the center of the door. Door numbers must be a minimum of four (4) inches in width, and slant no more than 30 degrees from vertical. The tops and bottoms of all numbers must be even (not staggered). Two (2) digit numbers must not overlap and must have a minimum of 3/4 inch separation. A solid number 18 inches high, excluding borders and silhouettes, must be neatly attached to or painted on the roof, reading from the passenger side. A solid number a minimum of 12 inches high, excluding borders and silhouettes reading from the passenger side neatly attached to or painted at a 45 degree angle on the right front corner of the roof is also acceptable. Solid numbers, as large as possible, must be attached to or painted on the right outer nose and taillight covers. The use of number decals is acceptable if NASCAR Officials determine that the number is legible. Mirror foil numbers and decals will not be permitted. Paint schemes using a mirrored or holographic appearance will not be permitted.

GENERAL ENGINE REQUIREMENTS:

See SK Lite 602 Crate Engine Specs below.

A static compression rule of 9.3 to 1 will be strictly enforced. Any engine over 9.3 to 1 will not be allowed to compete until serviced.

WSB approved service centers for the GM Performance Factory Sealed 602 Circle Track Spec Engines are:

R.A.D. Auto Machine	Ludlow MA	413 583 4414
T/A Engines	Plainville, CT	860 747 6713

Larry's Auto Machine Groton, CT 860 449 9112

SK Lite 602 Crate Engine Specifications

The GM Circle Track 602 Crate Engine part number is the only engine permitted. The engine that will be used will be the GM Part Number 88958602 GMR 350/350 Circle Track Engine with spec modifications that can be done only through an approved service center. All engine seals must remain intact and un-tampered with. Tampering with seals will result in severe penalties and loss of eligibility of the engine to compete in the WSB SK Lite division.

DETAILED SPEC ENGINE REQUIREMENTS:
Only the GM Performance factory sealed P/N 88958602 350/350 circle track crate engine is permitted.

OIL PANS / OIL COOLERS:
The factory sealed OEM oil pan or Canton Racing Products part #11-102T are permitted. Engine oil coolers are not permitted.

VALVES:
The OEM crate engine valve or the Manley stock replacement valve are permitted.

VALVE SPRINGS:
The factory OEM GM part #10212811 springs or the Comp Cam part #981-16 valve springs are permitted. Additional valve springs or devices of any kind are not permitted.

HARMONIC BALANCER:
The factory OEM GM part #12555879 or the Power Bond part #PB1046-SS harmonic balancers are permitted.

PUSH RODS:
The factory OEM GM part #14095256 must be used. Guide plates or any other push rod devices of any kind are not permitted.

ROCKER ARMS:
The factory OEM GM part #10089648 rocker arms (1.5 ratio) must be used. Additional rocker arm devices of any kind are not permitted. Additional oiling devices of any kind are not permitted.

ROCKER ARM NUTS:
The factory OEM Kool Nut kit, GM Part Number 25534352 must be used. Additional rocker arm stud support or strengthening devices of any kind are not permitted.

CARBURETOR:
The Holley two-barrel model # 4412 must be used. All parts must be a Holly part for the 4412.
(1) Any polishing, grinding or drilling of holes is not permitted.
(2) The choke may be removed, but all screw holes must be sealed.
(3) Choke horn may not be removed or modified.
(4) Boosters may not be changed. Size or shape must no be altered. Height must remain standard.

(5) Venturi area may not be altered in any manner. Casting ring may not be removed.
(6) Alterations to allow additional air to be picked up below the opening of the venturi such as altered gaskets, base plates and drilling holes into the carburetor is not permitted.
(7) Base plate may not be altered in shape or size.
(8) Throttle butterflies may not be thinned or tapered. Idle holes may be drilled in butterflies. Screw ends may be cut even with shaft but screw heads must remain standard.
(9) Throttle shaft may not be thinned or modified.

CARBURETOR ADAPTER:
The Canton Racing Products part #85065A aluminum adapter plate must be installed between the intake manifold and the carburetor. Modifications to the adapter are not permitted.

All parts not listed here must remain OEM as factory supplied for your engine.

CARBURETOR AIR FILTER / AIR FILTER HOUSING:
A. Only one round dry type paper air filter element maintaining a minimum 12 inches and maximum 14 inches diameter is permitted. The air filter element must maintain a minimum of 1 ½" inches, maximum five (5) inches in height. All air must be filtered through the element.
B. Only a round metal filter housing is permitted. The top and bottom of the air filter housing must be solid with no holes. A maximum of one (1) inch lip is permitted from the air filter element to the outer edge of the air filter-housing top and bottom. The air filter-housing carburetor mounting ring must have only one (1) round hole a minimum of five (5) inches in diameter. It is permissible to attach a shield to the front area of the air filter housing up to a maximum of one half of the air filter circumference. The shield must not be higher than the height of the air filter element. The air filter housing metal top and bottom must be of the same diameter. The air filter housing must be centered and set level on the carburetor. No air induction, ducts, baffles, tubes, funnels or anything else which may control the air entering inside of, or between the air filter and carburetor. No plastic air filter housings or parts.
C. The bottom of the air filter element must measure within one (1) inch of the carburetor's top flange. A spacer may be used between the carburetor and the air cleaner as long as the one (1) inch specification is not exceeded.
D. No portion of the hood may be higher than the bottom of the air cleaner.

IGNITION SYSTEM:
A. Electronic distributors are permitted. All electronic distributors must be in stock type housings, have stock type controls and modules, be equipped with a magnetic pickup, be gear driven, and be mounted in the stock location. Billet distributor housings are permitted
B. Single or dual point camshaft driven distributors are permitted.
C. Only one (1) ignition coil is permitted and must be mounted on engine side of the firewall.
D. Electronic firing module amplifier box is not permitted.
E. Computerized, multi-coil, dual electronic firing module box or crank trigger systems are not permitted. Magnetos are not permitted. All ignition systems are subject to approval by Track Officials.
F. Adjustable timing controls are not permitted.
G. Retard or ignition delay devices are not be permitted.
H. A MSD # 8728 External RPM limiter with a 6000-RPM chip is MANDATORY. The violet wire of the MSD # 8728 must be cut back flush to the unit's housing. The green and the white wires of the MSD # 8728 must run directly to the coil negative. The MSD # 8728 must be mounted on the engine side of the firewall in plane view. Track officials may require the replacement of the 6000-RPM chip with a track issued chip at any time during an event. RPM limiters must be fully functional and operational at all times.

I. Accessories to regulate the power supply are not permitted.
J. The tachometer wire must run from the distributor to the tachometer along the #8 dash bar separate from any other wires and in unobstructed view for inspection. The tachometer wire must be isolated from any other wires, connections or devices. The entire length of the tachometer wire must be visible from distributor to the gauge.
K. The Vacuum advance unit may be replaced with a manual non-electronic timing adjuster that does not extend more than two inches beyond the distributor housing.

BATTERY:

Only a single 12-volt OEM automotive type or an automotive type gel-battery is permitted. The battery must be located between the frame rails under the hood or the floor of the car. If located under the floor, the battery must be completely encased, if located under the hood the battery must have a suitable cover. The battery must not be forward of the radiator or rear of the rear end housing of the car. The battery location must be acceptable to Officials.

TRANSPONDERS:

Transponders are required on your car at all times. See Track Rules section for locating transponders properly. Any car not registering a transponder signal during practice will be black-flagged to be made aware of their scoring transponder's failure and is required to remedy it before proceeding further in the event.

MYLAPS AMERICA
www.mylaps.com
32 Highlands Parkway, Suite 104
Smyrna, GA 30082
Tel 678-816-4000 Fax 678-816-4001

RADIOS:

Spotters are mandatory. Every car must have a spotter monitoring race control by way of scanner or radio. All Spotters will be located in a central area designated by The Waterford Speedbowl with 2-way radio communication to their car. Each spotter will be identifiable as to which car they are spotting for. Failure to monitor and obey radio direction will result in penalties.

ELECTRONICS:

Onboard Computers, Automated Electronics, Recording Devices or Digital Readout Gauges of any kind are not permitted. "Tell-Tale" Type Tachometers are the only standard exception to this rule. You must get approval before using any in-car camera equipment.

ENGINE COOLING SYSTEM:

Only Water or approved coolants or additives may be used in the cooling systems.

WATER PUMP:

Steel or aluminum OEM types only are permitted. Electric pumps are not permitted. Combination water pump/alternator units are not permitted
Modifications of stock impellers are permitted.
Any serpentine, cog or V-belt pulley system is permitted.

ENGINE EXHAUST SYSTEM:-

You must use the following headers:
Troyer Chassis - Kooks Headers # SMS1033 or Flowrite #SMS 25
Raceworks Chassis - Kooks Headers # SMS1233 or Flowrite #SMS 45
Chassis Dynamics Chassis - Kooks Headers # SMS1435 or Flowrite #SM S35
Spafco Chassis- Flowrite #SMS 55
Stainless steel, stepped and 180-degree headers are not permitted.
The exhaust header flange must mount directly to the cylinder head with no spacers between the flange and the cylinder head. A maximum header flange thickness of ½ inch is permitted.
Inserts are not permitted in any part of the header or collector. Merge, crossover and pyramid collectors are not permitted.
Exhaust pipes must come out of engine at cowl and must extend a minimum of six (6) inches past the cowl. Right exhaust pipe may run beneath the car, but must turn down and out toward the bottom of the right side frame rail.
Lobak # RCM 30-12-30, Lobak #35-12-35, Kooks #R300-10, or Flow-Right P/N FR300 mufflers are required at all times. Modifications or repairs of any type are not permitted on the muffler. Both muffler flanges must be intact. Mufflers must be removable for inspection. Race teams are responsible for the condition of their mufflers. Mufflers found to have deteriorated baffles due to rust/rot will be treated the same as if they were modified. Your mufflers must be in good condition and have complete baffles
Thermal wrap is not permitted anywhere.
Only one muffler and exhaust pipe allowed per side.
Interior or exterior coatings of any type (except for paint) are not permitted.

ENGINE DRIVE TRAIN - FLYWHEEL AND CLUTCH:
Stock OEM dimension steel flywheel for engine type. OEM type steel pressure plate and steel disc only. Solid type disc only, no paddle or button type discs. Minimum 10" clutch and pressure plate. Drilling or lightening of any part is not permitted. Steel bolts only. Flat surface machining allowed only on the face of the flywheel, any cutting on the backside of the flywheel will deem the part illegal.
The following weights are the minimum allowed for each part:
Flywheel only (no bolts) 14.5 LBS.
Pressure plate, Cover, & Solid Disc 16 LBS.
The steel solid disc (no bolts) must maintain a minimum weight of 2.5 pounds and a maximum weight of 3.8 pounds after the combined weight has been determined.

BELL HOUSING:
Only a special production all magnetic steel bell housing can be used. The bell housing must enclose the flywheel 360 degrees with minimum ¼ inch magnetic steel. Any changes to the bell housing must be made with ¼ inch magnetic steel and welded in place. All welds must be done inside and outside of the bell housing. No bolt on pieces. An opening no larger than 3 ½ x 4 inches may be used for throw out bearing access. This hole may be covered with sheet metal.

TRANSMISSION:
Only OEM production stock 3 & 4 speed transmissions will be permitted. Top loader transmissions are not permitted. Gear ratio must be of stock OEM production.
Only stock O.E.M. factory housings are permitted.
Only OEM type, steel, angle cut forward gears are permitted. Square cut forward gears are not permitted.
Removal of first gear, or replacement of first gear with a metal spacer, in 4-speed transmissions is permitted. All other forward and reverse gears must be in working order, and they must be operational from inside the driver’s compartment. All transmissions must have a constant engagement of the input

shaft with gear and countershaft with cluster gears.
Five-speed transmission, with gears removed are not permitted.
Quick change transmissions are not permitted.
Automatic or semi-automatic transmissions are not permitted.
Machining or lightening of any internal rotating or non-rotating parts including gears, shafts and case is not permitted. Gun drilled transmission shafts are not be permitted. Welding on any internal part is not permitted.
Additional or different from OEM bearings other than the tail-shaft, which may have roller bearings, is not permitted.
Auxiliary, over or under drive transmissions are not permitted. High gear must have a ratio of 1 to 1 and no other gear may have a ratio higher than 1.20 to 1.

REAR AXLE:
Only magnetic steel axels, bearings, and axle housings are allowed.
All axles must be a minimum of 7.250 pounds while still maintaining a 1.250 inch manufactured outside shank size and a .6875 inch inside hole diameter.
Only ten (10) inch ring gear rear ends are permitted.
Lightened, ultra-light, EDM, Scalloped, back-cut, ring gears are not permitted.
Gear Rule: 4:62 Maximum for straight rears, 4:71 Maximum for Quick Change Rears.
Gear rule is subject to change based on keeping the competitive balance of the division equal. If a change is deemed necessary, a change will not be made on raceday, but rather, it will be in effect for the following weeks event.

TIRES:
WSB SK Modified, SMS SK Modified or SMS SK Light Hoosier Tires must be used.
Tires will be inventoried via bar code serial numbers and a tire purchase/use rule will be in effect.

NOTICE*:* A participant competing in any event at Waterford Speedbowl specifically agrees that he/she acknowledges it is illegal to soak or treat racing tires and that said soaking or treatment of racing tires is against EPA regulations and further contains carcinogens and hazardous material which are unfit for his/her health and the health of all competitors and spectators. Any participant found violating the rule is subject to suspension.

COIL OVER SHOCKS:
The following shocks are permitted;
Fronts- Pro Shocks # TA55½B
Rears- Pro Shocks # TA74½B
Shocks must remain as manufactured, they may not be modified/adjusted in any manner.

SPINDLES, WHEEL BEARINGS and HUBS:
Front spindles must be tethered to frame per NASCAR rulebook.
Oil filling of any spindles, wheel bearings or hubs is not permitted.
Low drag spindle, hub or bearing kits are not permitted.

BRAKE COMPONENTS:
Four wheel operational disc brakes are mandatory.
Rotors must be magnetic cast steel or iron. Drilled, slotted, grooved, or scallop shaped rotors are not permitted.
Brake calipers must be steel or aluminum, and have a “Racer Net” value of $265 or less.

FUEL SYSTEM:
Icing or cooling of the fuel system is not permitted.
Nothing may be placed in the fuel line except a standard fuel filter. The use of any type of fuel catalyst or other fuel-altering device is prohibited.

FUEL CELL – Must meet NASCAR specifications with a fuel cell bladder made of a material that returns to its original size and shape after deformation. Rotational molded bladders are not permitted. It is highly recommended that the fuel cell bladder be no more than six (6) years old. Competitor must provide bladder model, serial number and date(s) to Track Officials before competing.

FUEL CELL CONTAINER/FUEL FILLER / VENT REQUIREMENTS:
See NASCAR rulebook.

FUEL SHUT-OFF: A 1/4-turn fuel shut-off valve of minimum 3/8-inch NPT with minimum 4-inch handle is required in the fuel line. The fuel shut-off valve must be located 8-inches inboard of the passenger side frame rail's outside edge and 24-inches forward of the main roll bar (#1 bar). The fuel shut-off valve must be mounted securely to the underside of the driver's compartment sheet metal. The fuel shut-off valve shank must protrude through a maximum 1-inch diameter hole in the sheet metal to the interior of the driver's compartment. The fuel shut-off valve handle must be parallel with the sheet metal that the valve is mounted to. The fuel shut-off valve handle must be a minimum of 4-inches in length, red in color with a minimum of 1-inch clearance from the sheet metal throughout its full travel. A minimum 6-inch by 6-inch square area must be painted white with the fuel shut-off valve's ON and OFF positions clearly labeled with 1/2-inch tall, black in color lettering. The shut-off valve must rotate clockwise from the ON position with the handle parallel with the frame rail, pointing towards the rear of the car, to the OFF position with the handle perpendicular to the frame rail pointing toward the driver.

ROLL CAGE:
Please consult the diagram in the NASCAR rulebook.
A) The door bars (#9 A & B), on both the left and right sides, must have a minimum of four (4) bars equally spaced from top to bottom that must be welded horizontally between the vertical uprights of the main roll bar (#1) and the front roll bar legs (#2 A & B). The top door bar on each side must maintain a minimum vertical height of 15-1/2 inches from the top of the main frame rails to its centerline and match up with the intersection of the dash panel bar (#8) at the roll bar legs (#2A & #2B) at the front and the intersection of the horizontal shoulder bar (#7) at the main roll bar (#1) at the rear. All door bars must be convex in shape. The door bars (#9 A & B) must have a minimum of six (6) vertical supports per side with two (2) equally spaced between each door bar. These supports must be made from a minimum of 1-3/4 inches by 0.090 inch wall thickness magnetic steel seamless round tubing (not numbered but shown in the left side view of diagram #3). Right side door bars must cover a minimum of 25 inches of door length and may be either four (4) horizontal bars with six (6) vertical studs or two (2) horizontal bars and two (2) bars configured in an X design. If the X design is used, a vertical bar must connect through the center of the X from the top horizontal bar to the frame.
B) A 13 gage (0.0897 inch thick) magnetic steel anti-intrusion plate(s) must be securely welded to the outside of the left side door bars. The anti-intrusion plate(s) must fill the area between the horizontal centerlines of the top and bottom door bars, and vertical centerlines of main roll bar (#1), and the left front roll bar leg (#2A). The plate(s) must be formed to match the curvature of the door bars. Plate(s) welded between the vertical upright bars should be as large as possible. All plate(s) must have the corners welded with one (1) inch of weld followed by a maximum of three (3) inches of surface not welded and followed again by a minimum one (1) inch weld. To facilitate emergency removal of the left side door bars

(#9A), the anti-intrusion plate must have six (6), 2-1/8 inch diameter holes cut in the anti-intrusion plate, with three (3) holes forward of the front vertical supports and three (3) holes rearward of the rear vertical supports in the following locations: The upper two (2) holes must be centered vertically between the left side door bars (#9A-1&2), at an on-center distance of three (3) inches from the center of the front vertical support and the rear vertical support. The middle two (2) holes must be centered vertically between the left side door bars (#9A-2&3), at an on-center distance of three (3) inches from the center of the front vertical support and the rear vertical support. The lower two (2) holes must be centered vertically between the left side door bars (#9A-3&4), at an on-center distance of three (3) inches from the center of the front vertical support and the rear vertical support.

All cars must have a foot protection bar acceptable to Officials installed on the left side of the roll cage. The foot protection bar must be located at or in front of the pedal assembly, when viewed from the side and above. The foot protection bar must be completely welded to the left front roll bar leg (#2A) and extend forward and be completely welded to the main frame rail or front sub-frame.