



American Box Car Racing International

A NONPROFIT ORGANIZATION

THE DRIVING FORCE: YOUTH & FAMILIES TOGETHER

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ABCRI Competition Box Car Specifications

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BUILDING YOUR BOX CAR

ABCRI sanctioned races are open to any Box Car--home built or commercially manufactured--as long as it conforms to the Race Car Specifications in this Rule Book. If you are building your box car from scratch, it is wise to keep in contact with ABCRI to be sure your design will qualify for the class in which you plan to participate.

RACING CLASSES

ABCRI Races are divided into five Standard Classes, plus Unlimited:

FOR STANDARD BOX CARS:

NOVICE ages 10 and under
CHALLENGER ages 10 to 12
RACER ages 11 to 15
VETERAN ages 14 to 18
CRUISER ages 17 and over

FOR UNLIMITED Box CARS:

UNLIMITED all ages, if approved by Race Committee

ALL NEW DRIVERS ages 10 and under begin in Novice Class. The above classes are open to box cars which meet Standard Box Car Specifications except for Unlimited Class, which is open to box cars which meet Unlimited Box Car Specifications. Drivers may participate in both the Standard Class of their age group and the Unlimited Class (if they qualify -- SEE Rule U1) at the same event. Drivers are not allowed to race in more than one Standard Class or in a Standard Class which is not their age group, unless approved by the Race Committee. A box car can not be entered in both a Standard Class and the Unlimited Class at the same event. During-the-race-day modifications to box cars to make them meet both Standard and Unlimited Car Specifications, in turn, are not allowed.

RACE CAR SPECIFICATIONS

To qualify to race at an ABCRI Race all box cars must conform to these Race Car Specifications. Decisions regarding all areas of Race Car qualification will be handled by the Race Committee governing each race. Disputes will be settled by the Race Director in charge of each race.

Exceptions may be made, at the Race Committee's discretion, to allow a Race Car to compete which does not meet the following specifications--FOR ONE TIME ONLY--as long as the Race Car meets most of the guidelines and exceeds a few guidelines by only a small amount. The Race Car must then meet all guidelines to qualify for any future ABCRI Races.

STANDARD BOX CARS

S1. Race Car floorboards must be made of 3/4 inch thick wood (such as plywood, particle board, etc.) and may have support members or a framework. Apart from the floorboard, the rest of the Race Car body may be made of wood and nonwood materials, such as sheet metal, plastic and fiberglass.

S2. Race Cars may have fenders. Each fender must be securely attached, not impede the Race Car's steering in any way and can have no sharp edges or projections.

S3. Race Cars must have hoods with dash. A driver's legs cannot be inside the hood. No part of the driver's body can be enclosed or partially enclosed in any way by any part of the car. In the event of an accident in which the box car tips over, the driver must be able to roll free of the car without impediment.

S4. The Race Car, including all parts and hardware, must clear the ground by a minimum of 1.0 inch and not scrape the track nor snag any wires from the starting ramp to the red stop line beyond the finish line.

- S5. The wheelbase, measured from the middle of the front axle hub to the middle of the rear axle hub when the wheels are straight, must be no less than 40 inches and no more than 54 inches.
- S6. Front tread width, measured from the middle of one front tire to the middle of the other front tire, must be no less than 21 inches and no more than 25 inches.
- S7. Rear tread width, measured from the middle of one rear tire to the middle of the other rear tire, must be no less than 21 inches and no more than 25 inches.
- S8. Overall length of each Race Car must be no less than 46 inches and no more than 72 inches, provided no part of the Race Car extends more than 11 inches in front of the center of the front axle pivot bolt or 9 inches in back of the center line of the rear axle.
- S9. Overall width of each Race Car must not exceed 27 inches. No part of any Race Car can protrude more than 1 inch beyond the outside of its tires on each side.
- S10. The base of the seat back must attach to the floorboard and be at least 3 inches in front of the centerline of the rear axle. The seat back may recline no more than 20 degrees and the top of the seat must rise at least 10 inches above the floorboard. The driver must sit with hips on floorboard and feet forward.
- S11. Overall height of a Race Car body at the highest point of its dash must be no less than 12 inches and no more than 22 inches off the ground.
- S12. Wheels must be 12.5 inch spoke bicycle type wheels made of commercially available steel or aluminum bicycle components. Aluminum rims are allowed due to the international steel shortage. 12.0 inch wheels are not allowed. Hubs must be stamped not machined. Wheel Bearings must be Steel Ball Bearings, loose or caged, with Cones and Cups. Sealed Bearings are not allowed. Custom machined components are not allowed. No other non-steel components are allowed. Polishing and truing of stock steel components is allowed. Balancing the wheels is allowed. The weights added to balance the wheels must be on the outside of the wheel and only the approximate minimum amount needed to balance can be used. No additional weight, other than for balancing, can be added to a wheel or tire in any manner.
- S13. Tires must be 12.5 x 2.25 or 12.5 x 1.75/2.25 inch pneumatic bicycle type tires with tread in safe condition with no cord showing.
- S14. All Race Cars must have a dual action hand or foot activated braking mechanism which stops both rear wheels equally and simultaneously. The braking system cannot add spinning weight to the wheel/tire.
- S15. All Race Cars must have front axle steering only. The steering mechanism must be controlled by a steering wheel and be deemed safe by the Race Committee. The Steering mechanism must be enclosed within the hood area. Any linkage to the axle which extends outside of the hood, or projects out from under the floorboard, must be well in front of the foot rest. The front axle must be mounted to the floorboard with a pivot in the center of the axle and have wheels attached to the axle ends in a fixed position.
- Front and/or rear axles may have mechanisms which provide an adjustment for toe-in/toe-out and/or camber, but only if the front axle mechanism turns with the front axle and all wheels are secure in their fixed positions.
- S16. Each Race Car must have a foot rest (and/or brake pedal) which prevents the driver's feet from coming in contact with the front tires, front axle, steering linkage or the ground at any time.
- S17. Each Race Car must have two areas for Racing Numbers--one on each side of the car. Racing Numbers should be at least 4 inches high and easily visible. (SEE: Car Numbers.)
- S18. Race Car without driver must weigh a minimum of 42 pounds and a maximum of 57 pounds.
- S19. Any enclosed compartment and/or component on a Race Car must be opened, removed and/or disassembled upon request by a Race Official. Failure to comply is grounds for disqualification.

S20. All Race Cars must be safe overall. Any feature of a Race Car which the Race Committee or Race Director determines as unsafe can cause the Race Car to be disqualified.

UNLIMITED BOX CARS

U1. Plans must be submitted to and approved by the ABCRI Race Committee.

U2. Open to all drivers who have participated in a minimum of three ABCRI Championship Races and are approved by the Race Committee for Unlimited Class competition.

U3. Race Cars must have four wheels, all of which are functional and load bearing. Maximum wheel/tire height is 18".

U4. Race Car wheelbase cannot exceed 58 inches as measured from the middle of the front axle hub to the middle of the rear axle hub when wheels are straight.

U5. Overall width of the Race Car cannot exceed 30 inches.

U6. Overall length of the Race Car cannot exceed 81 inches, provided no part of the Race Car extends more than 11 inches in front of the center of the front axle.

U7. Race Car must have safe and effective steering and braking mechanisms as determined by the Race Committee and Tech Inspectors. .

U8. Each Race Car must have two areas for Racing Numbers-- one on each side of the car. Racing Numbers should be at least 4 inches high and easily visible. (SEE: Car Numbers.)

U9. Race Car without driver cannot weigh more than 81 pounds.

U10. As with all box cars, the car must be gravity powered only.

U11. The Race Car, including all parts and hardware, must clear the ground by a minimum of 1.0 inch and not scrape the track nor snag any wires from the starting ramp to the red stop line beyond the finish line.

U12. The Race Car must be deemed safe by the Tech Inspector.

U13. No part of the driver's body can be enclosed or partially enclosed in any way by any part of the car. In the event of an accident in which the box car tips over, the driver must be able to roll free of the car without impediment.

U14. Unlimited Race Cars cannot be legal for Standard Classes.

DRIVERS' MEETING

It is important to hold a Drivers' Meeting before the race begins. The most important point to emphasize is that the focus of ABCRI Races is for drivers to learn driving skills, safety, responsibility and to have fun. Winning is down the list of priorities. For the drivers who wish to do as well as they can, they should be focusing on improving their personal best, but not at the expense of good sportsmanship.

ABCRI FINISHING POINT SYSTEM

ABCRI has developed its Finishing Point Chart by analyzing the point systems used by Formula 1, CART, IRL, NASCAR and Moto-Cross. This Finishing Point System can be used as needed for a single Race Day up to a Champion Series:

1st	100 points
2nd	91 points
3rd	83 points
4th	76 points
5th	70 points
6th	65 points
7th	61 points
8th	57 points
9th	53 points
10th	50 points