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## **NDR GENERAL CAR RULES**

### **STOCK- SUPER STOCK – A/A MASTERS – NDR MASTERS**

Welcome to the National Derby Rallies (NDR), the following is the NDR's interpolation, and clarification of the All-America SBD car assembly and car rulebook. It is the NDR's mission to provide a fair and equal competition between all of its racers. The NDR will use All-American SBD products and follow the A/A car rulebook and assembly plans for all divisions. Exceptions, clarification and interpolations will be noted in the following.

The NDR also recognizes that since the inception of the current kit cars used in NDR & A/A competition quality control issues have led to many variations of the product we race today. It is our goal to build parameters around said variations while keeping all our racecars as equal as possible. Items that do not comply with the NDR's interpretation should be replaced. Any questions concerning rule interpretation please contact NDR rules chief inspector.

All hardware used in car assembly must be UNALTERED All-American SBD issue or matching unless otherwise noted.

All flat washers used in assembly must retain a flat surface equally across entire washer on both sides. No concave or convex surfaces.

Any hardware that does not meet the above standards must not be used in car build. 'It came that way' will no longer be a valid argument.

Floorboards used in Stock – Super Stock & A/A Masters must retain an entirely flat surface side-to-side and front to back.

All hardware used in car assembly must be in the 'fall apart' mode should car be subject to inspection at both local and national events. Only exception to this rule will be a tight king pin fit to the axle due to variances in king pin hole sizes and Flat Bottom Masters lower plates and el bolts used in plate assembly.

Variations for car builds: Any variation to per plan car builds not outlined in the NDR or All-American rulebooks must be submitted to the NDR chief inspector for approval prior to competition. Request for variation must be submitted 90 days prior to car competing in a NDR event. Approved variations will be posted on NDR web site no later than 30 days of being submitted and no less than 60 days prior to car competing, thus allowing all NDR members time to perform approved modification if desired. Any variations approved by the A/A must be resubmitted for NDR approval.



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While it is impossible to write rules concerning every aspect of our sport the NDR board will strive to make NDR racing a fair and equal competition, The board will follow the 'spirit of the rules' format with all issues not covered in print.

All derby cars competing at the NDR Nationals will be subject to a pre-race inspection with first and second place cars in each division and a random draw from finishing positions 3 thru 8 having a post race teardown. NOTE: Post race teardown will be more invasive than pre-race inspection! Racers helmet will be a part of pre-race and post race inspections.

Any illegal assemblies discovered in pre-race or post race inspections will be reviewed by the NDR board possible sanctions to both car handler and driver with loss of points, placement, prizes, NDR membership and NDR race sanctions may occur.

PRESENTING YOUR CAR FOR NDR COMPETITION IS YOUR (RACER & CAR HANDLER) CERTIFICATION THAT YOU HAVE CONSTRUCTED YOUR CAR WITH FULL UNDERSTANDING OF THE CURRENT NDR RULE BOOK AND WILL RACE IT AS SUCH.

***THANK YOU FOR RACING NDR!***



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## STOCK DIVISION RULES

Stock Division cars will be inspected against the latest version of the International Soap Box Derby rulebook publications and all subsequent updates posted on the AASBD.org web site. Exceptions to those documents will be posted here and NDR General Car Rules.

### BODY-

No nose gap allowed. Effective immediately, a nose screw is required. Body shell height will be 39 ½ in. measured over top of shell in front of front foam from bottom of floorboard to bottom of floor board. Max. ½ in. body rake measured at tail from bottom of floor to lower most part of shell at tail. Nose must be flush or above bottom of floor. No trimming bottom of shell, no alterations to screw holes.

### STEERING-

The use of PVC cable adjusters is optional. NDR allows steering assembly to be repainted.

### FLOORBOARD-

Any floorboard found with major non-conformities will be subject to these options and actions:

1. Withdraw from event
2. Replace floorboard
3. All non-conforming components will be confiscated and destroyed, witnessed by owner.

The NDR will continue to allow the use of vintage A/A issued butcher-block floors currently approved by A/A. However, these guidelines will be enforced.

- A. Only boards converted from non-elevator bolt construction will be allowed water based wood filler around the head of the elevator bolt. All filler must be flush with the surface of floorboard.
- B. 100% of the diameter of every elevator bolt must be visible and no sanding or polishing of bolts is allowed.
- C. The dimension as measured from the front of floorboard to center of front kingpin shall be 7 - 15/16" plus or minus 1/16". The dimension from center of front kingpin to center of rear kingpin shall be 61 - 1/8" plus or minus 1/16 ".
- D. Tung Oil coating must not cover or adhere to any hardware.
- E. Floors that have slight damage may be repaired with water based wood filler only.

### BRAKES-

All brake cables shall be double clamped. The NDR recommends double looping of cable ends around eyelets.



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#### RADIUS RODS-

You may remove rust and scale by using scotch brite, steel wool or similar items. Reducing thickness, rounding edges or removing cut out witness marks will not be permitted. Radius Rods must be flat end to end when assembled in car.

#### AXLES-

Axles must be A/A issued 1996 and newer. The only alterations allowed are polishing of spindles, removal of rust from square stock and triangulation centering marks. Axles are not permitted to be bowed in a de-arch or pre-bow manner and not permitted to be bowed front to back. Axles will be checked on stands with no weight on axles.

Axles that do not meet the following dimensional tolerances will not be allowed:

Square stock - 0.752 max. 0.747 min. / Spindle dia. - 0.498 max. 0.494 min.

Square stock length - 28 ¼ in. / Spindle length - 3 ¼ in.

#### WEIGHT

The maximum weight of the car and driver is 200lbs on z-glass wheels

\*NDR Nationals wheel bank (aluminum wheels) will scale in 210lbs. No additional weight in car is necessary.



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## **SUPER STOCK DIVISION RULES**

Super Stock Division cars will be inspected against the latest version of the International Soap Box Derby rulebook publications and all subsequent updates posted on the AASBD.org website. Exceptions to those documents will be posted here and NDR General Car Rules.

### **BODY-**

No nose gap allowed. Effective immediately, a nose screw is required. Nose must be flush or above bottom of floor. No trimming bottom of shell, no alterations to screw holes.

### **STEERING-**

The use of PVC cable adjusters is optional. NDR allows steering assembly to be repainted.

### **FLOORBOARD-**

Any floorboard found with major non-conformities will be subject to these options and actions:

1. Withdraw from event
2. Replace floorboard
3. All non-conforming components will be confiscated and destroyed, witnessed by owner

The NDR will continue to allow the use of vintage A/A issued butcher-block floors. However, these guidelines will be enforced.

- A. Only boards converted from non-elevator bolt construction will be allowed water based wood filler around the head of the elevator bolt. All filler must be flush with the surface of floorboard.
- B. 100% of the diameter of every elevator bolt must be visible and no sanding or polishing of bolts is allowed.
- C. The dimension as measured from the front of floorboard to the center of front kingpin shall be 5-13/16" plus or minus 1/16". The dimension from the center of front kingpin to center of rear kingpin shall be 63- 3/8" plus or minus 1/16".
- D. Tung Oil coating must not cover or adhere to any hardware
- E. Floors that have slight damage may be repaired with water based wood filler only.

### **BRAKES-**

All brake cables shall be double clamped. The NDR recommends double looping of cable ends around eyelets.

### **AXLES-**

Axles must be A/A issued 1996 or newer. The only alterations allowed are polishing of spindles, removal of rust from square stock and triangulation centering marks. Axles are not permitted to be bowed in a de-arch or pre-bow manner and not permitted to be bowed front to back. Axles will be checked on stands with no weight on axles.



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Axles that do not meet the following dimensional tolerances will not be allowed:

Square stock - 0.752 max. 0.747 min. / Spindle dia. - 0.498 max. 0.494 min.

Square stock length - 28 ¼ in. / Spindle length - 3 ¼ in.

#### FOILS-

Plastic unaltered A/A issued. The front foils must be shortened from the body side outward to the first internal web. The cut must be flush and smooth with the web, no excess material past the web.

#### WEIGHT-

The maximum weight of the car and driver is 240 pounds on Z-Glass wheels.

\*NDR Nationals wheel bank (aluminum wheels) will scale at 250lbs. No additional weight in car is necessary.



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## **A/A MASTERS (flat bottom) DIVISION RULES**

Flat Bottom Masters Division cars will be inspected against the latest version of the International Soap Box Derby rulebook publications posted and all subsequent updates posted on AASBD.org website. Exceptions to those documents will be posted here and NDR General Car rules.

### **BODY-**

No nose gap allowed. Effective immediately, a nose screw is required.

### **STEERING-**

NDR allows steering assembly to be repainted.

### **FLOORBOARD-**

Any car found with major non-conformities will be subject to these options and actions.

1. Withdraw from the event.
2. Replace the floorboard.
3. All non-conforming components will be confiscated and destroyed, witnessed by the owner

The NDR will continue to allow the use of vintage AA issued butcher-block floorboards. However, these guidelines will be enforced.

- A. Floors that have slight damage may be repaired with water based wood filler only.
- B. 100% of the diameter of every elevator bolt must be visible and no sanding or polishing of the elevator bolts is allowed.
- C. Tung Oil coating must not cover or adhere to any hardware.

### **BRAKES-**

Use of A/A issued hand brake is now optional. All brake cables shall be double clamped. The NDR recommends double looping of cable ends around eyelets.

### **WEIGHT-**

The maximum weight of the car and driver is 255 pounds on Z-Glass wheels starting 01/11/2015.

### **AXLES-**

Axles must be A/A issued 1996 and newer. The only alterations allowed are polishing of spindles, removal of rust from square stock, triangulation centering marks and pre-bowing. Pre-bowing: A 1/8" pre-bow (arch) is permitted. Axles are not permitted to be bowed in a de-arch manner and are not permitted to be bowed front to back. Pre-bow will be checked on stands with no weight on axle. Front and rear axle must be accessible for pre-bow inspection.

Axles that do not meet the following dimensional tolerances will not be allowed:

Square stock - 0.752 max. 0.747 min. / Spindle dia. - 0.498 max. 0.494 min.



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Square stock length - 28 ¼ in. / Spindle length - 3 ¼ in.

**WEIGHT-**

The maximum weight of the car and driver is 255lbs on z-glass wheels starting 01/11/2015.

\*NDR Nationals wheel bank (aluminum wheels) will scale in at 265lbs. No additional weight in car is necessary.





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## **NDR MASTERS (round bottom) DIVISION RULES**

NDR Glass Wrapped Master Division car will be inspected against the 2002 and 2004 versions of the International Soap Box Derby “Master Division Scottie Special” publications. Exceptions to those documents will be posted here.

### **BRAKES-**

Use of A/A issued hand brake is now optional. All brake cables shall be double clamped. The NDR recommends double looping of cable ends around eyelets.

### **BODY-**

No glass or composite over foam or void areas allowed.

### **AXLES-**

Axles must be A/A issued 1996 or newer. The only alterations allowed are polishing of spindles, removal of rust from square stock and triangulation centering marks.

Axles that do not meet the following dimensional tolerances will not be allowed:

Square stock - 0.752 max. 0.747 min. / Spindle - 0.498 max. 0.494 min.

Square stock length - 28 ¼ in. / Spindle length - 3 ¼ in

### **WEIGHT-**

The maximum weight of the car and driver is 265 pounds on Z-Glass wheels starting 01/11/2015.

NDR Nationals wheel bank (aluminum wheels) will scale in at 275lbs. No additional weight in car is necessary.

### **AGE RANGE-**

Any racer age 10 and up is eligible to race in the Round Bottom division. There is no maximum age for this class.

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