

## **SECTION 4 - CHASSIS RULES**

### Speedway (Oval/Offset) Chassis Specifications (Sprint and Champ)

#### 4.1 Tires

- 4.1.1 Asphalt Oval: Burriss B44A or B55A's only. (SS series also legal)
- 4.1.2 Dirt Oval: Any Burriss "B" series tire in all sprint type chassis classes. B44A and B55A's only in Champ classes. (SS series legal in both divisions)
- 4.1.3 The use of "prep" or other chemicals of any type inside or outside the tire is not allowed. Tires can be cleaned with water and Simple Green if desired.

#### 4.2 Wheels must be 5" or 6" bead diameter with an O/A 10 3/8" maximum width. Aluminum only.

#### 4.3 Main frame members shall be constructed of cold rolled, electric weld, round, steel tubing or other material of equal or greater strength, of one inch minimum nominal outside diameter and .078 inch minimum wall thickness and 1.400 inch maximum nominal diameter. Tubing of 1.125 inch nominal and greater may have a wall thickness of .060-inch minimum. Main frame rail members shall be no higher than a horizontal line extending from the centerline of the front wheel to the centerline of the rear wheel. No oval tubing allowed.

- 4.3.1 Rear axles to be constructed of ferrous metal or aluminum (No titanium). 1 3/8" maximum diameter. Both drive wheels must be secured to the axle and cannot rotate independent of each other.

- 4.3.2 The use of any type of suspension components is strictly prohibited.

- 4.3.3 Brakes: Hydraulic disc types that brake the rear wheels only. No front wheel brakes. Steel or iron rotors only. For all F200, KT100 and Unlimited classes the minimum rotor (disk) diameter and width is 7.1" x .18". All bolts and fasteners to be safety wired or cotter keyed.

- 4.3.4 Brake rotor cover: A flat metal disc cover ("Wolf plate") between the seat and brake rotor is mandatory.

#### 4.3.5 Steering:

- 4.3.5.1 Solid steering shafts shall be a minimum .625" diameter, made of cold rolled steel, and one-piece design. Welding the steering wheel or hub to the shaft is not allowed. Shaft extensions, and cutting and welding the shaft to alter its length is not allowed. The steering wheel must be secured to the shaft with a nut or cap screw in the axial position. Quick release type steering wheel mandatory on all Champs and is optional on sprint chassis. Hollow shafts shall be a minimum of .700" diameter X .070 minimum wall steel tubing. Steering hub must be mounted by a 1/4" bolt parallel to its axis point. Tiller type shaft steering systems are not allowed.

- 4.3.5.2 All steering component bolts, and nuts, must be cotter keyed and/or safety wired and must be a minimum grade 5 rating.

- 4.3.5.3 Steering wheels may be circular, with a ten-inch minimum diameter, and a minimum of three spokes or the butterfly type, with a ten-inch minimum diameter, and four spokes, and a minimum grip length of five inches on each side.

- 4.3.6 Fasteners used on any component that will enable adjustment of camber, caster, etc. must be cotter keyed and/or safety wired.

- 4.3.7 All weights added to the kart must be securely fastened to the kart with a minimum 5/16-inch diameter bolt. Any single weight weighing in excess of seven pounds must utilize a minimum of two 5/16-inch minimum diameter bolts. All

bolts used to fasten weights to the kart must be cotter keyed, safety wired, or double nutted.

- 4.3.7.1 All weights attached to karts must be painted white. It is also recommended that your kart number be on the weight.

4.3.8 Rear view mirrors are prohibited.

#### 4.4 Speedway Sprint Chassis specifications

4.4.1 Wheelbase: 43.0 inches maximum, 40.0 inches minimum. Wheelbase is measured from true axle centerlines, each side.

4.4.2 Track width: 28.0 inches minimum. Track width may be measured from the outside edge of one tire to the inside edge of the opposite tire when both tires are of identical width.

4.4.3 Overall width: 50.0 inches maximum for all classes. Overall width is measured at any cross section of the kart, perpendicular to the longitudinal centerline axis.

4.4.4 Overall length: 74.0 inches maximum. Overall length is measured at any cross section of the kart, parallel to the longitudinal centerline axis.

4.4.5 Overall height: 26.0 inches maximum. Overall height is measured such that all elements of the kart must pass under a bar set parallel to ground level, 26.0 inches above ground level.

4.4.6 Dry kart weight: 85 pounds minimum in race ready trim without fuel.

4.4.7 Front bumper: All components shall be constructed of round, .065 wall steel tubing of .750-inch nominal diameter minimum. The uppermost tangent point of the top hoop shall be 7.75 inches minimum from ground level.

4.4.8 Rear bumper: All components shall be constructed of round, .065 wall steel tubing of .750-inch nominal diameter minimum. The uppermost point of the top hoop shall be 7.5 inches maximum from ground level and no lower than the bottom of the rear axle. Minimum width shall be no less than the lateral distance between the main chassis frame rails as measured at the rear of the kart. Maximum width shall be no wider than the rear overall width of tires.

4.4.9 Nerf bars: All components shall be constructed round, .065 wall steel tubing of .750-inch nominal diameter minimum. The rear portion shall not extend laterally beyond the rear tire and must be a minimum of 24" long.

4.4.10 Seat: Must be of conventional, unaltered, bucket type, molded construction, designed to keep the driver's posterior in place without undue movement. The seat shall be mounted between the main frame rails. The rearmost point on the seat may not extend beyond the back of the rear axle. Headrests are not permitted (except in Champ Karts). Steering uprights shall be positioned in such a manner as to prevent the driver's posterior from being positioned forward of the bucket portion of the seat.

4.4.10.1 Height of the uppermost point of the seat backrest is 10.0 inches minimum from ground level for Jr. I and Jr. II classes

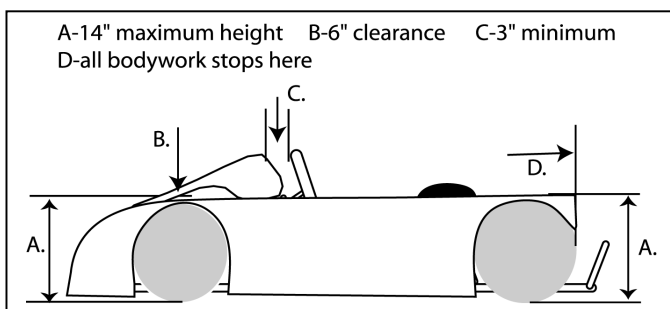
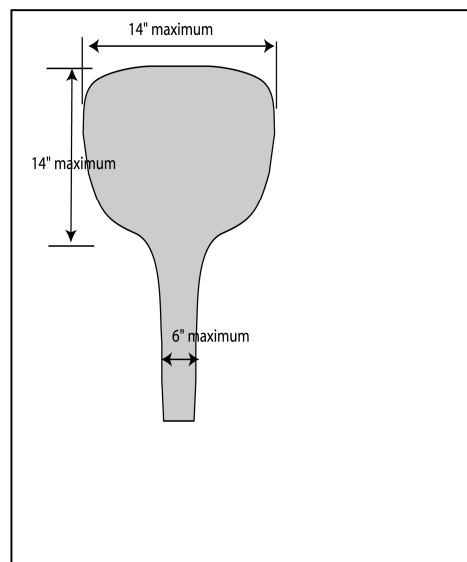
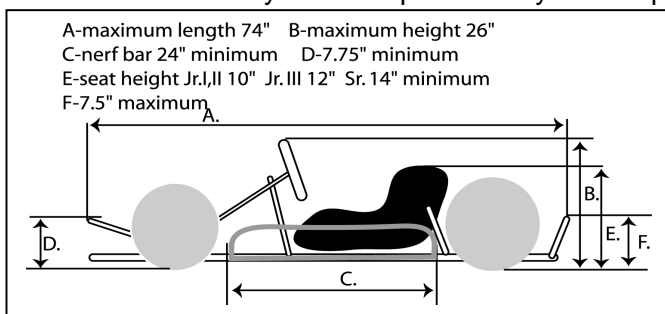
4.4.10.2 Height of the uppermost point of the seat backrest is 12.0 inches minimum from ground level for Jr. III classes

4.4.10.3 Height of the uppermost point of the seat backrest is 14.0 inches minimum for senior classes.

#### 4.5 Speedway Racing Bodywork Requirements

4.5.1 All bodywork components must be constructed of high strength plastic, fiberglass, or advanced composites. No metallic materials to be used for side panels or nose cones.

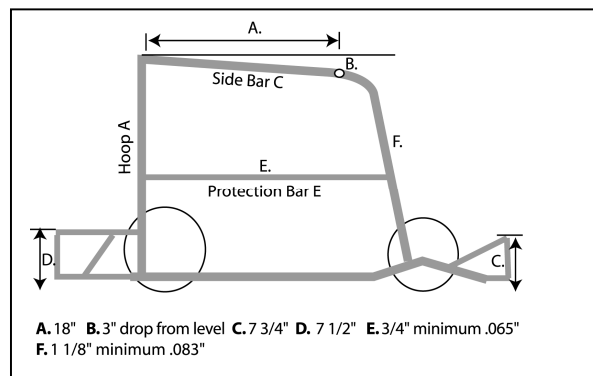
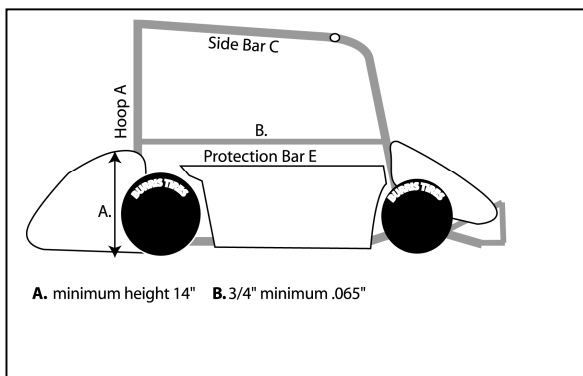
- 4.5.2 No component of the bodywork may be adjusted or controlled in any way while the kart is in motion.
- 4.5.3 Skirting devices must be constructed of a flexible, non-metallic material.
- 4.5.4 The sides of the tires may not be covered in any way by the nose cone or side panels. It must be possible to remove the wheel straight through the opening in the bodywork.
- 4.5.5 Nose cones: The nose cone may cover the driver's foot area, but not to extend further than 3.0 inches rear of the pedals in relaxed position. This measurement shall be made directly over each of the two pedals. The bottom of nose cone may extend full width no farther than the rear of the front tires, in a straight-ahead position, beyond that the bottom of the nose cone must be within the main frame rails. The nose cone may be no narrower than to expose one half of a tire width per side. Maximum nose cone height 14.0 inches for Jr I & Jr II classes only.
- 4.5.6 A connecting strip from nose cone or floor to steering fairing is allowed up to 6.0 inches maximum chord width, so as not to cover the driver's feet, or legs. Minimum six-inch clearance from connecting strip or steering fairing to any other bodywork component begins three inches maximum aft of the pedals, extending rearward to the mounting point for the steering wheel.
- 4.5.7 Steering fairings: Chord length 14.0 inches maximum. Chord width 14.0 inches maximum. Clearance to steering wheel 3.0 inches minimum. Clearance to any other bodywork or fuel tank 6.0 inches minimum. Clearance from steering wheel to any other bodywork 6.0 inches minimum. No steering fairings in Jr. Sportsman Classes.
- 4.5.8 Belly pans: Full width belly pans within the main frame rails are allowed for all classes. Belly pans can be bent up to a point no higher than the centerline of the rear axle.
- 4.5.9 Height from ground level of all side panels and rear pods: 16.0 inches maximum.
- 4.5.10 No bodywork component may extend past the rear tire.

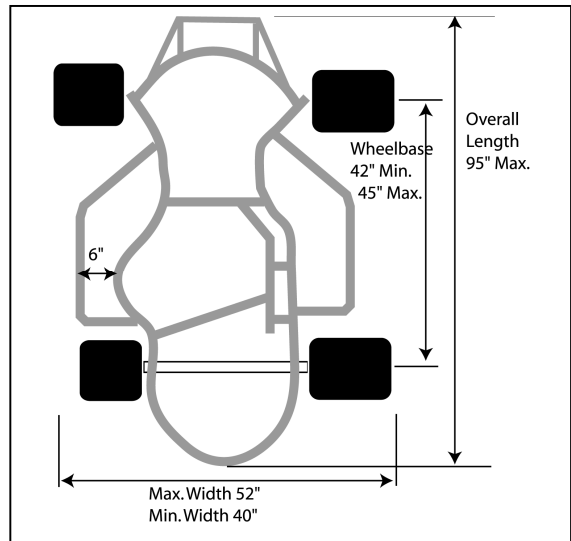
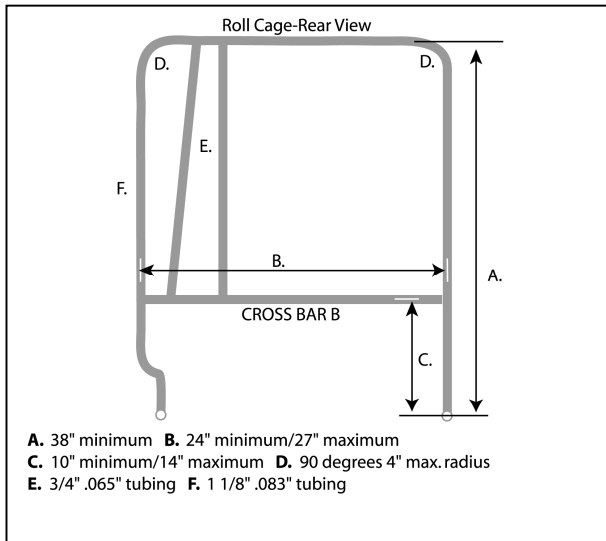


#### 4.6 Senior/Junior Champ Kart Chassis

- 4.6.1 Main frame members shall be constructed of cold rolled, electric weld, round steel tubing or other material of equal or greater strength, of 1.125-inch nominal minimum diameter, .083 inch wall thickness. Conventional tubular space frame construction methods only are allowed. (No bolt on cages) Pre 2002 model Champ Karts accepted providing they are in their original manufactured configuration. No modifications to the chassis or cage allowed. Legality of non-conforming karts to be determined by the Race Director.
- 4.6.2 Wheelbase: 42.0 inches minimum, 45.0 inches maximum. Wheelbase is measured on true axle centerline, each side.
- 4.6.3 Overall width: 40.0 inches minimum, 52.0 inches maximum. Overall width is measured at any cross section of the kart, perpendicular to the longitudinal centerline axis.
- 4.6.4 Overall length: 95.0 inches maximum. Overall length is measured at any cross section of the kart, parallel to the longitudinal centerline.
- 4.6.5 Roll cage specific specifications
  - 4.6.5.1 Full roll cage of four point conventional construction is mandatory. The four uprights and top horizontal connecting tubes must be constructed of 1.125-inch nominal minimum diameter mild steel tubing. All attachments by welding unless otherwise specified.
  - 4.6.5.2 Uprights and positioning: Each of the rear uprights must be welded to the main frame rails at a point aft of the rear axle centerline. Each of the front uprights must be welded to the side frame rails at a point forward of the steering wheel mount point and aft of the leading edge of the front tire. All uprights must create an angle of no less than 45 degrees with the main frame rails and have no bends within three inches of attachment point except for left rear.
  - 4.6.5.3 Top hoop rails: Corner construction shall be of rounded type with no sharp edges or corners allowed.
  - 4.6.5.4 Shoulder harness mounting bar shall be welded laterally between rear uprights, double braced to the top lateral bar, at a height suitable for harness mounting. A minimum 6.0-inch square headrest shall be mounted to the braces level with the driver's head.
  - 4.6.5.5 Side protection bars are mandatory and must run horizontally between front and rear uprights each side. One end connection may be slip jointed. Side protection bars must be positioned vertically between the driver's shoulder and elbow.
  - 4.6.5.6 Roll cage side bar C overall width: 16.0 inches minimum 24.0" maximum. Width to be measured outside to outside between any two uprights.
  - 4.6.5.7 Roll cage overall height: 38.0 inches minimum. Height to be measured vertically from highest lateral cross bar centerline to main frame rail centerline.
  - 4.6.5.8 All roll cages that deviate in any way from the above description must be brought into conformity or receive approval from the race director or tech inspector prior to be used in competition.
- 4.6.6 Front bumper: All components shall be constructed of round, .065 wall steel tubing of .750 inch nominal diameter minimum. Front bumper must encircle entire front nose area at a height of 7.75 inches minimum from ground level. Double bumpers are recommended.

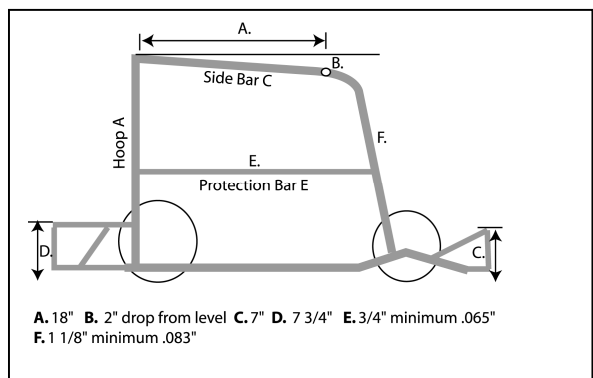
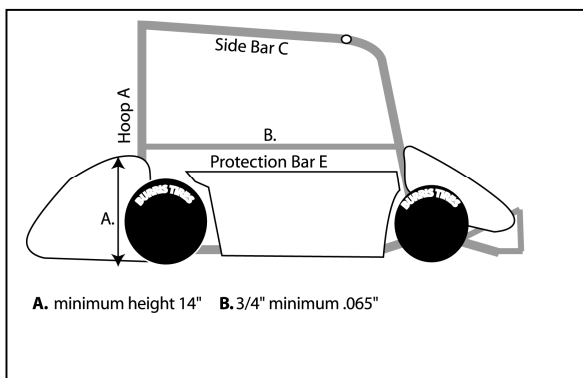
- 4.6.7 Rear bumper: All components shall be constructed of round, .065 wall steel tubing of .750 inch nominal diameter minimum. Double bar construction is mandatory. Rear bumper must encircle the tail section of the kart. The top of at least one bar must be 7.50 inches maximum from ground level.
- 4.6.8 Nerf bars: All components shall be constructed of round .065 wall steel tubing of .750 inch nominal diameter minimum. Double bar construction is mandatory. The top of the upper bar must be no higher than the top of the rear tire. The bottom of the lower bar must be no lower than the bottom of the main frame rails. Nerf bar must extend from an area inside a longitudinal line from the outer portion of the front tire to a point no further outboard than 1.0 inch from outer tire surfaces.
- 4.6.9 Seat positioning: No part of the seat may be positioned closer than six inches inside the left-hand nerf bar.
- 4.6.10 Harness: five points, SFI-rated racing harness is mandatory. Metal to metal harness fastener is mandatory. Mounting bolts must be cotter-keyed and attach to a 3/16 inch minimum thick, 2.0 inch minimum square steel mounting plate that is welded to the frame and/or roll cage. Arm restraints, attached to the harness, are mandatory.
- 4.7 Champ Kart Bodywork Requirements
- 4.7.1 All bodywork components must be constructed of high strength plastic, fiberglass or advanced composites only.
- 4.7.2 No component of the bodywork may be adjustable in any way while kart is in motion.
- 4.7.3 Bodywork must be confined to the area defined by the front and rear bumpers, inside the area defined by the inside sidewalls of the tires.
- 4.7.4 Cockpit must be entirely open when viewed from above.
- 4.7.5 Wings, spoilers or other aerodynamic effects are prohibited. Including wind deflectors attached to the roll cage.
- 4.7.6 Full, midget/sprint type, open wheel, conventional construction methods only is approved. Flat panels are allowed only for side panels and all other bodywork components must have rounded, compound curve configuration. Nose bodywork is mandatory.
- 4.7.7 Full enclosing Midget/Sprint type tail section recommended. 15.0 inches minimum length, 13.0 inches minimum width and 14.0 inches minimum height.

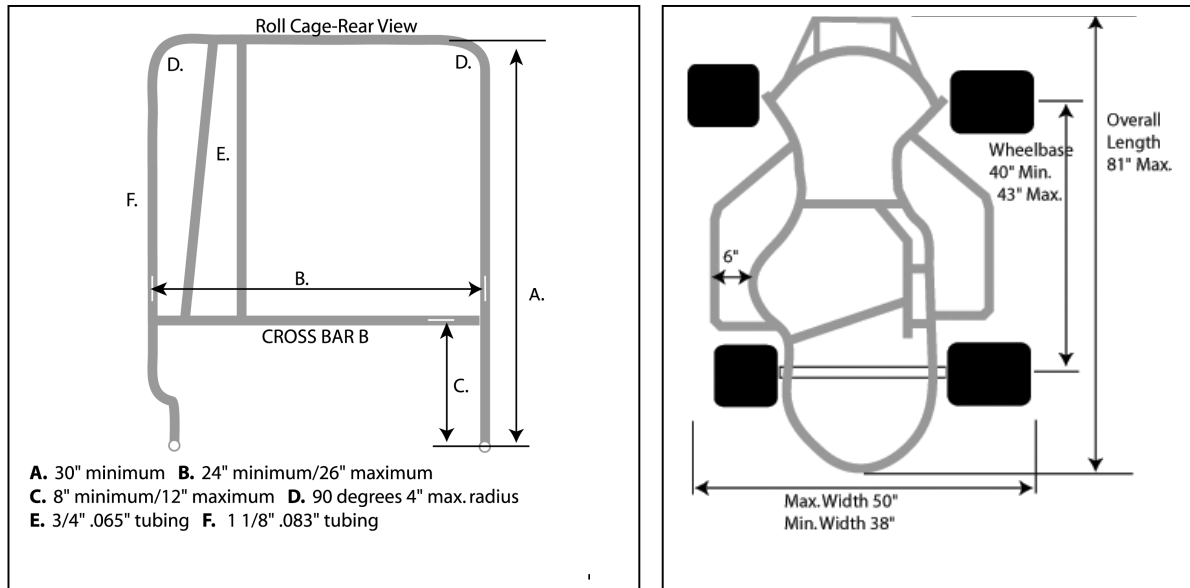




#### 4.8 Junior Sportsman Champ Kart Chassis Specifications

- 4.8.1 Mainframe members shall be constructed of cold rolled, electric weld, round steel tubing or other material of equal or greater strength, of 1.125 inch nominal minimum diameter, .083 inch wall thickness. Conventional tubular space frame construction methods only are allowed. (No bolt on cages) Pre 2002 model Champ Karts accepted providing they are in their original manufactured configuration. No modifications to the chassis or cage allowed. Legality of non-conforming karts to be determined by the Race Director.
- 4.8.2 Wheelbase: 40.0 inches minimum, 43.0 inches maximum. Wheelbase is measured on true axle centerline, each side.
- 4.8.3 Overall width: 38.0 inches minimum, 50.0 inches maximum. Overall width shall be measured from outside tire sidewall to opposite outside tire sidewall.
- 4.8.4 Overall length: 81.0 inches maximum. Overall length is measured at any cross section of the kart, parallel to the longitudinal centerline.





#### 4.9 Roll cage specific specifications

- 4.9.1 Full roll cage of four point conventional construction is mandatory. The four uprights and top horizontal connecting tubes must be constructed of 1.125-inch nominal minimum diameter mild steel tubing. All attachments by welding unless otherwise specified.
- 4.9.2 Uprights and positioning: Each of the rear uprights must be welded to the main frame rails at a point aft of the rear axle centerline. Each of the front uprights must be welded to the side frame rails at a point forward of the steering wheel mount point and aft of the leading edge of the front tire. All uprights must create an angle of no less than 45 degrees with the main frame rails and have no bends within three inches of attachment point except for left rear.
- 4.9.3 Top hoop rails: Corner construction shall be of rounded type with no sharp edges or corners allowed.
- 4.9.4 Shoulder harness mounting bar shall be welded laterally between rear uprights, double braced to the top lateral bar, at a height suitable for harness mounting. A minimum 6.0-inch square headrest shall be mounted to the braces level with the driver's head.
- 4.9.5 Side protection bars are mandatory and must run horizontally between front and rear uprights each side. One end connection may be slip jointed. Side protection bars must be positioned vertically between the driver's shoulder and elbow.
- 4.9.6 Roll cage side bar C overall width: 16.0 inches minimum 20.0" maximum. Width to be measured outside to outside between any two uprights.
- 4.9.7 Roll cage overall height: 30.0 inches minimum. Height to be measured vertically from highest lateral cross bar centerline to main frame rail centerline.
- 4.9.8 Front bumper: All components shall be constructed of round, .065 wall steel tubing of .750 inch nominal diameter minimum. Front bumper must encircle entire front nose area at a height of 7.75 inches minimum from ground level. Double bumpers are recommended.
- 4.9.9 Rear bumper: All components shall be constructed of round, .065 wall steel tubing of .750 inch nominal diameter minimum. Double bar construction is mandatory.

Rear bumper must encircle the tail section of the kart. The top of at least one bar must be 7.50 inches maximum from ground level.

- 4.9.10 Nerf bars: All components shall be constructed of round, .065 wall steel tubing of .750 inch nominal diameter minimum. Double bar construction is mandatory. The top of the upper bar must be no higher than the top of the rear tire. The bottom of the lower bar must be no lower than the bottom of the main frame rails. Nerf bar must extend from an area inside a longitudinal line from the outer portion of the front tire to a point no further outboard than 1.0 inch from outer tire surfaces.
- 4.9.11 Seat positioning: No part of the seat may be positioned closer than six inches inside the left-hand nerf bar.
- 4.9.12 Harness: five points, SFI-rated racing harness is mandatory. Metal to metal harness fastener is mandatory. Mounting bolts must be cotter-keyed and attach to a 3/16 inch minimum thick, 2.0 inch minimum square steel mounting plate that is welded to the frame and/or roll cage. Arm restraints, attached to the harness, are mandatory.
- 4.10 Junior Champ Kart Bodywork Requirements
  - 4.10.1 All bodywork components must be constructed of high strength plastic, fiberglass or advanced composites only.
  - 4.10.2 No component of the bodywork may be adjustable in any way while kart is in motion.
  - 4.10.3 Bodywork must be confined to the area defined by the front and rear bumpers, inside the area defined by the inside sidewalls of the tires.
  - 4.10.4 Cockpit must be entirely open when viewed from above.
  - 4.10.5 Wings, spoilers or other aerodynamic effects are prohibited. Including wind deflectors attached to the roll cage
  - 4.10.6 Full, midget/sprint type, open wheel, conventional construction methods only is approved. Flat panels are allowed only for side panels and all other body components must have rounded, compound curve configuration. Nose bodywork is mandatory.
  - 4.10.7 Full enclosing Midget/Sprint type tail section recommended. 15.0 inches minimum length, 13.0 inches minimum width and 14.0 inches minimum height.

#### Sprint Chassis Specifications

- 4.50 Tires
  - 4.50.1 Burriss 10X4.5-5, 11X6.0-5 or 11X7.10-5 in B44A or B55A compound only.
- 4.51 Wheels to be 5" bead diameter only with a maximum O/A width of 8.5". Material to be aluminum or magnesium only.
- 4.52 CIK style body work only on sprint (road course) chassis. No oval track (full) body work allowed.
- 4.53 All sprint (straight up) chassis to be of contemporary design. Rear axle diameter, 50 mm max. Aluminum or steel only.
- 4.54 More specifications coming in 2008.