WKA 2010 GOLD CUP SERIES REGULATIONS

Contact information and updates can be found at www.ovka.com

The following regulations are guidelines ONLY.
Please refer to 2010 WKA Technical Manual and 2010 OVKA Rule Book for complete wording, descriptions and details.

250 GOLD CUP SERIES REGULATIONS

251 FRAME AND OVERALL DIMENSION *= 2010 RULE CHANGE # = See OVKA Rule Book

251.1 FRAME: Have proven safe design, main frame members shall be constructed of nominally round tubing, allowing for normal distortion and elongation near bends radii. Minimum diameter for main frame member is 1.0" and maximum diameter is 1.4". Minimum tubing wall thickness at 1.0" diameter is .078", Minimum wall thickness at 1.125" diameter or greater is .060", Frame material shall be at minimum, cold rolled, electric-weld (ERW) steel tubing or material of at least equal strength.

Note: Tubular steel construction technology is the only type of frame design method currently considered to be within the spirit and intent of the rules for all classes, in all divisions. The board of trustees shall, via and appointed competition committee, maintain an open policy to investigate examples of monocoque or unit-type frame design and/or non traditional construction materials utilization of the bases of safety, availability and cost impact upon the sport, making recommendations as necessary. Oval tubing-type frames are subject to material approval. Approved makes are eligible for competition in shifter classes.

See Figure 251 for specifications in the following paragraphs:

251.2 DRIVER POSITION: When normally positioned on the kart for racing competition, the entirety of the driver shall be within the specified width and length dimensions of the kart.

251.3 WHEELBASE: Maximum 43.0" Minimum 40.0" as measured longitudinally between the true axel centers.

251.4 MINIMUM TREAD WIDTH: 28.0"as measured from outside of one tire to inside of opposite tire laterally.

251.5 OVERALL MAXIMUM WIDTH: 50.0" for all classes. Maximum width includes side pods.

251.6 OVERALL MAXIMUM LENGTH: 74".
251.7 HEIGHT: Maximum of 26.0".

251.10: WEIGHT BALLAST: Non-structural weights added to meet minimum kart/driver weight requirements must be bolted securely to the kart using bolts of at least 5/16" in diameter.
Weights in excess of 7lbs must use two or more 5/16" bolts.
All bolts must be cotter- keyed, safety wired or double nutted.

 # NOTE: All bolt–on weights must be white in color for visibility. Mounting of weights to nerf bars, front bumper and rear bumper is prohibited. No added weight allowed on driver.

251.11 DRIVER WEIGHT AND WEIGH –IN: All drivers are subject to a minimum combined kart/driver weight check prior to events and a mandatory post-race weight check. In some classes, karts and drivers are subject to a maximum post race kart weight as specified in class structure. (See 803.8).

251.12 SUSPENSION COMPONENTS: Use of suspension components of any type, including springs, shocks, etc, is prohibited.

252 WHEELS AND TIRES *= 2010 Rule Change # = See OVKA Rule Book

***# 252.1 TIRES:** Pneumatic, designed for racing application types only, maximum diameter 12.5" and minimum diameter 9.0".Tires must be available to USA general market at least 60 days prior to use in any sanctioned event.
Tires will be marked in classes or divisions where applicable after time trials/qualifying heats and same tire must be run in all races. Maximum width on any tire and wheel of 10 3/8". Under wet weather conditions refer to sec 262.
NOTE: WKA reserves the right to establish spec tire regulations for all classes. WKA does not condone and discourages the use of chemical tire prep. It reserves the right to implement supplemental rules to control this practice.

252.2 WHEELS: Material Optional, but must be of a proven design capable of maintaining tire bead seal in competition conditions. 5" and 6" diameter rim size accepted only. No "G-rings or lateral-supported wheels allowed.

252.2.1: The dish (opening) of the wheels may not be covered. No hubcaps. Tape or any other material allowed.

***252.2.2 MAX WHEEL WIDTH:** Maximum overall wheel width will be measured from outside to outside of wheel using a NO GO Gauge using the following specifications.

Size	Manufacture's Specified Wheel Width	Maximum Overall Width "No Go" Dimension
4:50 x 5"	6 ½"	7"
6:00 x 5"	7 ¾"	8 ¼"
5:00 x 6	6 ½"	7"
6:50 x 6	8 ¾"	9 1/4"

252.3 WHEEL WEIGHTS: Clip-on or double back tape wheel balancing weights are allowed and not to exceed one-fourth (1/4) ounce weight each. Additional security is suggested when utilizing stick-on weights. A lack of security is not grounds for disqualification.

253 AXLES AND HUBS *= 2010 Rule Change # = See 2010 OVKA Rule Book

***253.1 WHEEL HUBS:** must be constructed of metallic materials. Wheel studs must be a minimum of 0.3125" (8mm) in diameter.

253.2: WHEEL BEARINGS: Ground-ball or roller type bearings only. Slit race bearings are not acceptable.
Wheel bearings must be adjusted so there is no excessive wheel play.

253.3 FRONT SPINDLE NUTS/FASTENERS: Front axle nuts must be cotter/keyed. Berry clips or circlip type safety fasteners are allowed in place of cotter pins where applicable. Bolts must be keyed in such a manner to prevent any movement of bolt or nut without key removed.
Note: Any fastener (nut on bolt, etc.) of a component that would enable movement of or adjustment of spindle(S) such as castor, camber, etc, must be drilled for and utilize either a cotter pin or safety wire.

253.4 REAR AXLE ASSEMBLY: Axles may be solid or tubular of one–piece design. Minimum diameter is 25mm (25.4 millimeter = 1.0"). Maximum axle diameter is 50mm. Axles over 1 3/8" diameter must be of ferrous material. No carbon fiber or carbon fiber composite axle allowed. Both driving wheels must be locked to rear axle with a "live" axle design. Self-clamping hub may utilize snap-ring instead of nut. Snap rings or similar fasteners are required at each end of the rear axle. Snap ring grooves may not be cut in axles anywhere between the wheel hubs. If hub extends beyond end of axle, hub must be pinned or tethered. Axle stiffeners are allowed as long as they are secured by cotter pin, though-bolt or circlip. (See Figure253.4a and 253b & 253c)
253.5 AXLE WIDTH: Front spindle axle and rear axle may not protrude beyond outside of rim and tire.

254 STEERING AND STEERING SHAFT SPECIFICATIONS *= 2010 Rule Change # = See OVKA Rule Book

***254.1 WKA: Steering General:** Must be of direct mechanical type. Tiller and vertical shaft steering systems are not allowed. Rack and pinion steering in not allowed.

All steering assembly bolts and nuts, including spindle bolts must be drilled cotter keyed and/or safety wired. Spring clips and E-clips are allowed with manufactured bolts/studs designed for their use.

All bolts will be a minimum of 14,000lbs. Tensile strength and be a minimum 1/4" (6mm) in diameter and a grade 5 or US mark 3 rating or better. All rods ends must have universal type swivel joints.

Note: All fasteners (nut on bolt, etc) of any component that would enable movement of or adjustment of spin dles, such as for castor, camber, etc. must be drilled for and utilize either a cotter pin or safety wire. Sprint clips and E-clips are also allowed with manufactured bolts or studs designed for their use.

254.2 STEERING SHAFTS

***254.2.1 SOLID SHAFT:** Minimum 0.625 diameter cold-rolled steel, one piece design.

Steering hub (one piece) must be secured with minimum diameter 5/16" quality nut and cap screw in the axial position with the center line of the shaft. Bottom of the shaft will have a minimum diameter 5/16" bolt/cap screw or minimum 1/8" steel roll pin (safety wired).

No cutting or welding of the shaft to alter the length allowed.

No quick release steering hubs allowed (except champ karts).

***254.2.2 HOLLOW SHAFT:** Minimum 0.700" diameter steel tubing, one piece design, with minimum 0.070" wall thickness, with minimum 5/16" diameter fastener at the bottom end.

Steering hub (one piece) will be secured through the axis to the steering shaft with minimum 5/16" bolt through the steering shaft/hub parallel to the axis point. No welding the steering wheel to the hub or the hub to the shaft allowed. No shaft extensions allowed. No quick release steering hubs allowed.

***254.2.3 OPTIONAL STEERING SHAFT ADAPTER:** An optional adapter may be inserted between the steering hub and steering wheel to change the angel of the steering wheel or to move the steering wheel closer to the driver. Maximum length 2" measured on the longest side. Minimum diameter of the adapter must be the diameter of the steering hub. Adapter must be designed such that all fasteners may be visually inspected and all mounting bolts must be a minimum diameter of ¼" and must be cotter keyed or safety wired, spring clips and e-clips are allowed with manufactured bolts or studs designed for their use.

254.3 STEERING WHEEL: "Steering wheels" may be completely circular, minimum 10" diameter and minimum 3 spoke design; or may be butterfly-type with 10" minimum diameter, 4 spoke design with minimum 5" grip length on opposing sides. (See Figure 454.5).

255 BRAKES *= 2010 Rule Change # = See Ovka Rule Book

255.1 BRAKE GENERAL: All Karts must have brakes, which at minimum, stop both rear wheels equally and adequately. All bolts and nuts must be secured with cotter keyed in such a way to prevent the nut from moving. Brake pedal must be secured to the kart with safety wire or cotter pins. No scrub or band-type brakes allowed. The linkage from the brake pedal to the master cylinder(s) or bias adjuster must be a steel rod of 6mm (.236) or larger in diameter. The rod must have either (1) a clevis or swivel fitting (Heim joint) at each end and jam nuts in tension with fittings or (2) other OEM brake rod fittings.

255.2 DUAL BRAKE SYSTEMS: When used, these systems will consist of two independent brake systems, operated by separate master cylinders, One system shall be fully operational if either front or rear system fails; i.e., if bias control is used, it must allow proper operation of the remaining system should either system fail etc.

255.3 BRAKE MOUNTING: All master cylinder and calliper mounting bolts and master cylinder roll pins are to be drilled and cotter-pinned/safety wired in such a manner that they cannot be loosened without removal of the cotter pins or safety wire. Nylock-style nuts used to the brake disk or drum to their hubs IS PROHIBITED. Use of steel locking nuts or drilled bolts with castellated nuts, properly pinned, are the only acceptable fastener for disk or drums.

255.4 PAD MOUNTING: Since most competition karts have brake pads secured by countersunk bolts, safety wiring is not feasible. Each karter should monitor proper tightness, and use appropriate thread locking substance to prevent loss of hardware.

255.5 CONNECTIONS AND ROUTING: Hydraulic brake connections must be tight and free of any visible leaks. All brake lines should be safely routed to prevent any possibility of being rubbed though or pulled loose while kart is in motion.

255.6 BRAKE COMPONENTS: Traditional type brake components only, i.e. steel or aluminum. No carbon fiber components, etc. allowed.

256 DRIVELINE COMPONENTS *= 2010 Rule Change # = See OVKA Rule Book

256.1 CLUTCHES: Dry clutches are mandatory in all 4-cycle classes. No axle clutches allowed.

256.2 CHAIN GUARDS: All chain, belt or gear-driven karts must be equipped with a chain, belt or gear guard designed to retain a broken chain, belt or gear. Karts with Outboard drive systems will be allowed only if the chain and sprockets are completely enclosed from front, rear, top and bottom.

256.3 EXPOSED SPROCKETS: Karts starting a race or practice, which are equipped with an axle sprocket hub not being used, MUST NOT have an exposed sprocket mounted in any manor. Sprocket must be removed. Sprocket hub must not be able to freewheel in the reverse direction.

256.4 CHAIN OILERS: Chain oilers are prohibited.

256.5 TRANSMISSIONS AND TORQUE CONVERTERS: No transmission, gearbox or other device which permits a change of gear/sprocket ratios while the vehicle is in motion is allowed unless otherwise noted for specific classes. Torque converters are prohibited.

256.6 CHAIN SIZE: #219 OR #35 are the only acceptable chain size allowed. No drive belts allowed.

257 FUEL SYSTEM *= 2010 Rule Change # = See OVKA Rule Book

257.1 FUEL TANK: If other the stock engine and fuel tank is used, fuel tank must be constructed of puncture-resistant material and have a secure, leak proof fill closure. Fuel tank must be securely bolted to primary structure/frame/floor-pan of the kart. Fuel tank must be mounted between frame rails and beneath steering shaft.

257.2 FUEL TANK CAPACITY: Maximum of one fuel tank permitted with maximum nine- liter (2.38 Gal) capacity.

257.3 FUEL SYSTEMS: No pressurized fuel systems are allowed. No axle or electric fuel pumps allowed.
Fuel pump must be pulse- driven. Fuel lines must be secured at all connecting points with approved fasteners such as safety wire or cable ties.

258 BODYWORK COMPONENTS * = 2010 Rule Change # = See OVKA Rule Book

258.1 DEFINITION: All must be must be neat in appearance, and in good repair. Bodywork that appears loose and in danger of falling off may subject the entrant to black flag and/or disqualification during the running of an event. Mounting method open but must secure and of good workmanship.

258.2 NOSE CONES: Nose cones is the bodywork that extends forward of the rear edge of the front tire. Nose cone must be of a design outlined in diagram. Nose will be teched 6" vertically high from the ground; 1" horizontally. (Refer to diagram Figure 258.3). Nose cone will be teched from front of wheel opening to front of wheel opening. To allow for minor variation in noses in "as raced" condition tech inspectors will allow an additional 0.2500" in the 1" horizontal dimension. No air inlets allowed. Nose cone must be a minimum of 8" high and a maximum of 17" high except Briggs Sportsman classes in which nose cones cannot be taller the 14" as measured from ground to highest point on nose cone. All nose cone must have a tire opening equal to or greater then the tire used. No covering of the side of the tire is allowed. (See Figure 258.5). Use of nose as floor pan: The bottom of the nose cone can extend back full width to the rear edge of the front tire. Any part of nose cone behind rear edge of front tire (i.e. used as floor pan) must be within the main frame rails. No fasteners may be used such as bolts, screws, pop rivets, etc to attach additions to the nose. Tape may be added to the nose cone provided it does not interfere with the 1 inch tech rule. Decals are allowed. Rubber baseboard or rubber molding may be used in a safe manner below the 6 inch measured area. NO CIK NOSE CONES ALLOWED. "If the nose cone is narrower then front tires, no more then ½ the width of either front tire may protrude".

258.3 NOSE CONE GUIDELINES: Nose cone must allow for easy driver ingress, egress and removal from the kart. It may cover foot area up to 3" rearward of both pedals in relaxed position , and must not interfere with driver's ability to operate pedals.

258.4 STEERING FAIRING: A fairing may extend from the nose cone rearward on an angle roughly paralleling the steering shaft. Maximum width of the fairing is 10.0" (chord measurement, not across the rounded surface). No portion of the steering fairing may be located within 3.0" of any part of the steering wheel. The fairing must be mounted with easily bendable tabs or struts. The fairing and/or mounting materials must expose no sharp edges to driver. Steering fairing, if used, must have 6" clearance between all surrounding bodywork. Fairing may connect to the nose cone or floor area of kart with connecting strip not exceeding 6.0" in width, and must not cover the driver's feet, ankles or legs as viewed from above. (See Figure 258.4).

NOTE: In Briggs Sportsman 1 and 2 classes No steering fairings are allowed.

258.5 SIDE PANEL/PODS: Side Panels/Pods is the bodywork that extends rearward of the rear edge of front tire to rear edge of rear tire. Side panels or CIK-style pods may be used and must be securely mounted. Side panels (both flat and 90^0 style) must have rolled or radiused edge on the front and rear wheel opening, if it protrudes beyond the wheel and tire as presented for pre- or post-race tech, unless attached to a nose cone. If the flat (vertical) style panels are used, side panel top edge must have inward radiused edge. All side panels allowed maximum 1" lower lip (See diagram). No metallic side panels allowed. (See Figure 258.5).

258.5.1: SIDE POD DIMENSIONS: If 90^0 panels are used, they may not cover any part of the driver's body. 14" maximum height in all areas. Minimum opening area forward or rear bumper to rearward edge of front tires is 22" minimum, measured with tires in straight- ahead position. Panels may connect to nose cone. The side panels/bodywork may be wider then rear or front tires. If the nose cone is narrower then front tires , no more the ½ of the width of either front tire may protrude.

258 BODYWORK COMPONENTS (CONTINUED) * = 2010 Rule Change # = See OVKA Rule Book

258.6 BELLY PAN: A full floor or belly pan is allowed providing it is within the area inside of the main frame rails and is no higher then the center of the rear axle.
Additional floor pan is also required within the front foot cage area. (See Figure 258.6)

258.7 APPLIES TO ALL BODYWORK:

258.7.1 BODYWORKS COMPONENTS: Bodywork components may not be adjustable while kart is in motion.

258.7.2 BODYWORK REQUIRMENTS: Bodywork must accommodate all applicable bumper and nerf bar requirements.

258.7.3 COCKPIT: Kart must have open cockpit area as viewed form above, except for steering column fairing and nose cone as pre above provisions.

258.7.4 BODYWORK CLEARANCE: All bodywork with the exception of the steering column fairing must be a minimum of 6" from the steering wheel when front wheels are in a straight-ahead position. This is to ensure there is adequate driver entry/egress area.

258.8 NUMBERS AND NUMBER PANELS: Four numbers are to be displayed on the kart. Including one on the front of the kart, on both sides in a vertical plane between front and rear wheels, and at the rear of the kart as view from behind. Number panels of adequate size to accept assigned disposable numbers. Whether paper-type numbers utilized or numbers are painted or decaled on bodywork, they must be readily readable to the scoring and race officiating personnel.

258.9 INNER BODY PANELS: No inner body panels are allowed.

259 BUMPERS AND NERF BARS * = 2010 Rule Change # = See OVKA Rule Book

259.1 FRONT BUMPER: Bumper must be constructed of minimum ¾" diameter steel tubing, minimum tubing wall thickness of 0.065". The top of the upper "Hoop" of the front must be a minimum of 7 ¾" above the ground as raced. The upper hoop must be supported in at least two places in the front portion of the bumper by ¾ or larger tubing uprights. These uprights must be welded to the upper hoop and weld or bolted at the bottom if nose cone is not utilized.

259.2 BUMPER AND PEDALS: Front bumper that incorporates pedal mounting points must be either welded to the frame or through-bolted or pinned with safety wire/cotter pins.

259.3 REAR BUMPER: All karts must be equipped with rear bumper to protect the driver and kart from rear impact. Bumper must be constructed of 3/4" minimum diameter steel tubing, minimum tubing wall thickness of 0.065". (Karts in World formula class running CIK style bodywork may run CIK Homologated "rear wheel protection" meeting CIK Specifications). Rear bumpers on all other karts must be positioned so that the following requirements are met:

259.3.1 MAX. HEIGHT: 7.5" as raced.

259.3.2 MIN. HEIGHT: No lower then the bottom of the rear axle.

259.3.3 MAX. WIDTH: No wider then rear tires.

259.3.4 MIN. WIDTH: No less then lateral width of main frame rails.
NOTE: Oil catch cans are not allowed to be attached to rear bumpers.

259.4 NERF BARS: Must be constructed of 3/4" steel tubing, minimum tubing wall thickness of 0.065" and must be secured by a minimum ¼" bolt. The overall length of the side nerf bar(s) shall be a minimum of 24.0" measured from the backside of the nerf bar closest to the rear tire in a straight line to where it attaches to the kart at the front. Double-high nerf bars are required or full FMK-style pods. (See Figure 259.4).
NOTE: Oil catch cans are not allowed to be attached to nerf bars.

260 SEAT * = 2010 Rule Change # = See OVKA Rule Book

See Figure 259 for following specifications.

260.1 SEAT STYLE: Sprint-style "bucket" seats only, no Laydown seats allowed. Seat must be of one-piece or molded construction, with no "peaks" or add-on sections intended to subvert the seat back height requirements noted below. Seat must securely locate driver laterally and longitudinally. Seat must bolt securely to the frame and not be adjustable while kart is underway. No portion of the seat may be located rearward of a plane projected vertically from rear of rear axle. Seat height requirements are as follows:

260.1.1 SPORTSMAN CLASSES (8-12 AGE GROUP): 10" minimum as raced.

260.1.2 JUNIOR CLASSES (12-15 AGE GROUP): 12" minimum as raced.

260.1.3 ALL OTHER CLASSES: 14" minimum as raced.

Note: Measurements is a vertical plane from ground to top center of seat back.

261 MISCELLANEOUS * = 2010 Rule Change # = See OVKA Rule Book

261.1 THROTTLE: It is mandatory for all karts to be equipped with a positive action throttle-return spring.

261.2 RESTRAINTS; Seat belts or other driver restraints are prohibited.

261.3 REAR VIEW MIRRORS: Are illegal.

261.4 COMMUNICATIONS: Drivers may utilize no type of radio communications devices.

261.5 DATA ACQUISITION SYSTEMS; On-board data acquisition systems and/or computer systems are allowed to retrieve the following information only: on-board RPM, water temperature, cylinder temperature, speed, exhaust temperature, lap timing (lateral G sensing), and computer scoring systems.
One beacon only from each manufacture allowed on the race circuit on race days to be located in a designated area by a designated person. All other beacons found on race circuit on race day will be confiscated and held by WKA to be returned through a request to the Board of Directors. Data can only be downloaded in pits.

261.6 ADJUSTMENTS; The only items that can be adjusted on the kart while in motion are the carburetor or brake bias.

261.7 TIRES: Tires to be qualified or raced on must be on kart through pump-around. Tire warmers, covers, etc. or working on karts will not be allowed on the grid. If adjustments need to be made, get permission from Grid Steward (s).

***261.8 TRANSPONDERS:** Transponders are to be mounted safely on the kart and located no less then 8" to the rear of the centerline of the top of kingpin to leading edge of transponder.

 # SECTIONS 262 – 262.1.6 OMITTED: (Race format, qualifying, pre-final, final, restarting karts, restarts, incomplete event,
and timing procedure). Please see OVKA Rule Book for details.

 # 262.1.7 TIRE AND ENGINE CHANGE: In the event of an approved tire or engine change, the competitor will start in the rear of the next round of completion

 # SECTIONS 262.2 – 262.9 OMITTED: (Wet and inclement weather, wet track, wet conditions procedures, restarting karts and restarts rules). Please see OVKA Rule Book for details.

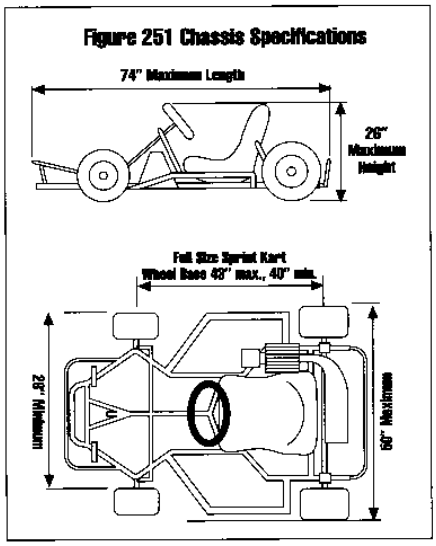
Figure 251 Chassis Specifications
74" Maximum Length
26" Maximum Height
Full Size Sprint Kart
Wheel Base 49" max., 40" min.
28" Minimum
60" Maximum

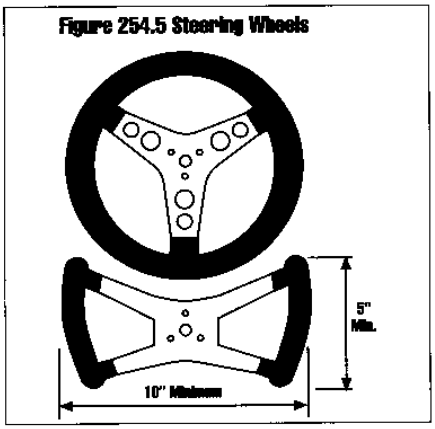
Figure 254.5 Steering Wheels
5" Min.
10" Minimum

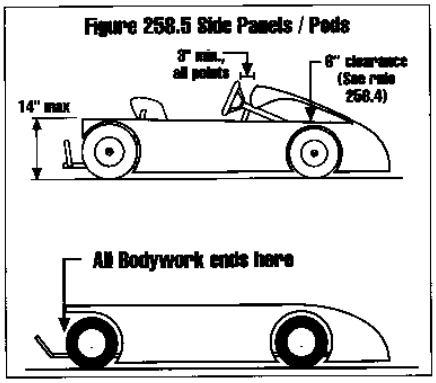
Figure 258.5 Side Panels / Pods
3" min., all points
6" clearance (See rule 258.4)
14" max
All Bodywork ends here

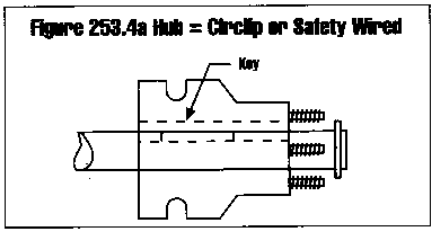
Figure 253.4a Hub = Circlip or Safety Wired
Key

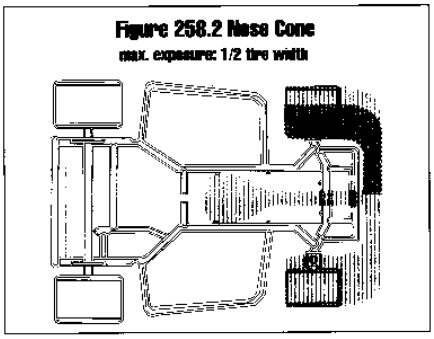
Figure 258.2 Nose Cone
max. exposure: 1/2 tire width

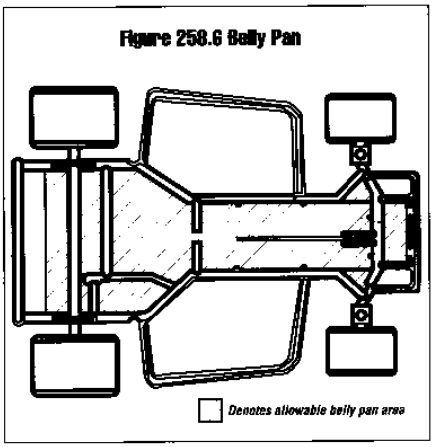
Figure 258.6 Belly Pan
Denotes allowable belly pan area

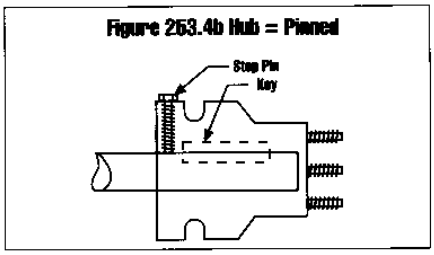
Figure 253.4b Hub = Pinned
Stop Pin
Key

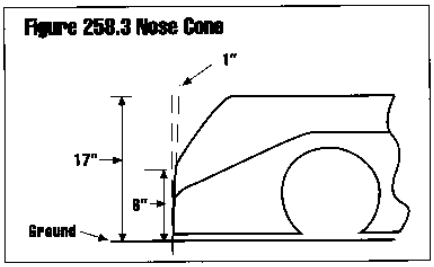
Figure 258.3 Nose Cone
1"
17"
8"
Ground

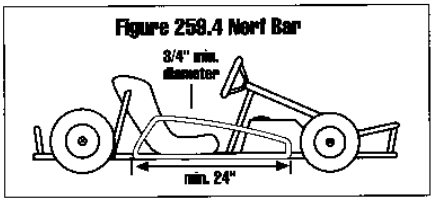
Figure 258.4 Nerf Bar
3/4" min. diameter
min. 24"

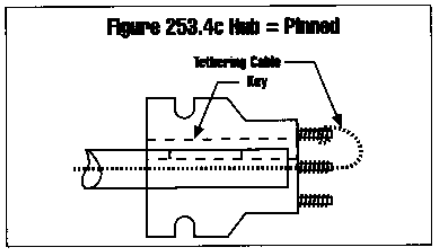
Figure 253.4c Hub = Pinned
Tethering Cable
Key

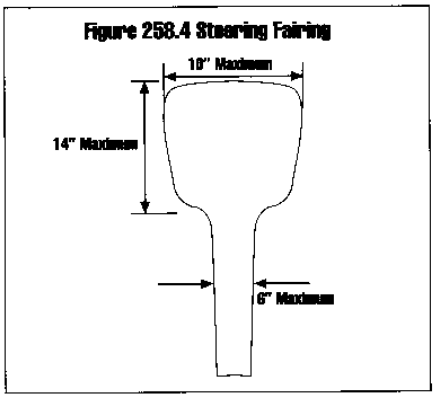
Figure 258.4 Steering Fairing
10" Maximum
14" Maximum
6" Maximum

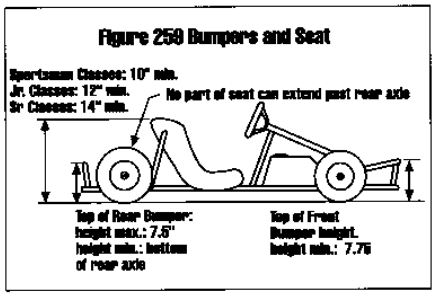
Figure 259 Bumpers and Seat
Sportsman Classes: 10" min.
Jr. Classes: 12" min.
Sr Classes: 14" min.
No part of seat can extend past rear axle
Top of Rear Bumper: height max.: 7.5" height min.: bottom of rear axle
Top of Front Bumper height. height min.: 7.75