MORR Combined Class Rules (CCR)

- The Combined Class Rules will apply to all Sportsman race classes.
- Any modification of or addition to the CCR is prohibited, unless changed by the proper method of notification by the series officials.
- Any specific class rules in the following sections will amend or supersede this section.

APPROVED MAKES OF COMPETITION

- The following truck manufacturers are considered eligible and approved for competition in Sportsman Series race events: Chevrolet, Toyota, Mazda, Jeep, Ford, Nissan, and Dodge.

ROLL BARS/ ROLL CAGE

- Round steel seamless aircraft 4130 or D.O.M. tubing is compulsory for the basic roll cage construction, and must be Sportsman Series approved.
- Aluminum and/or other composite soft metals are not allowable. All roll cage construction must be welded.
- Minimum tubing diameter for all Buggy Classes is 1-1/2" diameter by 0.090" wall thickness. If anything other than this is used for the bottom frame rail you must have prior written permission from Sportsman Tech Director.
- The minimum tubing diameter and thickness for vehicles weighing up to 3,000 lbs. is 1-1/2" diameter by 0.120" wall thickness.
- The minimum tubing diameter and thickness for vehicles weighing up to 5,000 lbs. is 1-3/4" diameter by 0.120" wall thickness.
- The minimum tubing diameter and thickness for vehicles weighing over 5,000 lbs. is 2" diameter by 0.120" wall thickness.
- Gussets are required on all intersections in the driving compartment as well as the bars that attach to the rear of the main roll bar behind the driver. Gussets must be of the same material and thickness as the roll cage and be within 3" of intersection.
- Diagonals or similar bracing are mandatory for all vehicle roof openings as well as front and rear roll bar hoops.
- All vehicles must have three horizontal door bars per side.
- All truck classes must have a 0.250" thick aluminum or 0.125" thick steel plate securely mounted on the outside of the driver side door bars. This plate must cover from A-pillar to B-pillar, and from the window opening to bottom of chassis. The plate must be bolted on with a minimum of 8 bolts with a minimum of 5/16" diameter.
- Sportsman truck classes must have a 0.250" thick metal protective shield covering the back and bottom of the seat.
- A basic roll cage configuration is detailed in the Illustrations Section of these rules.
- A 0.250" thick aluminum or 0.125" thick steel plate must be bolted or welded to the roof directly above the drivers head, and must cover the entire side of the roll cage above the driver compartment. A minimum of 6 5/16" bolts must be used if bolted.
- All roll bar tubes and roll bars in close proximity to the driver's helmet must be padded with a securely attached high impact padding meeting SFI Specification 45.1.
- Window nets are required and must use a positive latch (seat belt type) system. Spring-loaded mounts are not allowed. Metal retainers must be used in all areas of the mounting. No zip-ties.
- Window net rods must be a minimum of 1/2" solid rod for truck and buggy classes. Rods must be steel.
- Window net rods must be a minimum of 3/8" solid rod for kart classes. Rods must be steel.
- All window net latches must have a seatbelt-style Velcro tag at the end of their release. This tag must Velcro to the chassis or window net to prevent accidental opening of the latch.

DRIVER'S COMPARTMENT

- Any vehicle where hot water lines run though the driver's compartment, must have them fully shielded an enclosed from the driver.
- Air intake must not be in direct view of the driver. Intake must be shielded from the driver.
- Truck classes are allowed a maximum of 1/2" gap around steering shaft. All other holes must be covered.

TRACK WIDTH REQUIREMENTS

- Vehicles cannot exceed a maximum track or overall width as stated in vehicle class technical specifications.
- Track width is defined as the maximum overall width measured at the widest point of the tires.
- All measurements will be performed with Sportsman Series instruments or gauges.

WHEELBASE REQUIREMENTS

- All vehicles must compete with wheel base limitations as stated in vehicle class technical specifications.
- Wheelbase is measured from the center of the front wheel to the center of the rear wheel. Left and right sides must be within ± 1/2".
- Wheelbase will be measured from a ride height of 10" with all four tires inflated to 20 PSI.
- All measurements will be performed with Sportsman Series instruments or gauges.

METHOD OF MEASUREMENTS

- Leaf springs: Measured from CL rear eye to CL front eye.
- Wheel Travel, Front: Measured on the center of the dust cover.
- Wheel Travel, Rear: Measured on a vertical plane from the center of the rear axle.
- All measurement will be from stop to stop.
- Sportsman Series Technical Director determines all measurements and center points.

STEERING COMPONENTS

- All vehicles must be left side steer only .
- Steering wheel, seat and pedals must be in approximate stock location.
- Sportsman mechanism meeting SFI Specification 42.1.
- Series Technical Director must approve any universal joints in steering shaft.
- It is mandatory that the steering wheel be removable by means of a quick release.
- Hydraulic power steering is permitted.

BRAKES AND BRAKE COOLING

- Brakes must be operational on all four wheels at all times.
- All brake components must be Sportsman Series approved.
- Only disc brakes with steel (magnetic) rotors using metal mounting hats are permitted.
- Electronic wheel speed sensors or brake actuators will not be permitted.

DUST LIGHT

- A minimum of one rear dust light is required.
- The light must be an amber LED with a round (approximately 2.5" diameter) or rectangular (approximately 2" x 6") shape.
- Light must meet SAE specification P2. (NAPA part# LIT 1052A-round, or LIT 2150A3-rectangular or similar lights).
- Light must be mounted on, or near the truck's centerline, and in a location that provides good visibility from the rear and side of the truck.
- Dust light must be on at all times when the electrical master switch is on.

- Dust light may not strobe or flash.

SHOCKS

- All vehicles must have at least one working shock on each wheel position.
- All shock maximum diameters specified in individual class rules refer to nominal inner diameter of the shock body.
- Shocks must be hydraulic design without electrical or magnetic assistance.
- Shocks cannot be adjusted while vehicle is in motion.
- Heating or cooling liquids or chemicals in shocks are not allowed.
- Shocks may have external bypass tubes and reservoir cans.
- Sportsman Series Technical Director must approve all team-manufactured shocks.
- Remote, rocker arm, or cantilever-mounted shocks are not allowed.
- Each shock must operate independently at each wheel position.

WEIGHT OF VEHICLE

- All class weights are applicable both pre and post-race. The driver is included in vehicle minimum weight.
- Weight shifting devices of any kind are not allowed .
- A complete set of body panels must be presented to Sportsman Series Technical Director for weighing at or prior to first race of season. Excessive loss of body panels during competition will result in crew chief removing all body panels from race vehicle, adding weight of total panels.
- Race vehicle total weight must be declared on event entry form.
- All vehicles may be weighed after competition at the discretion of the Sportsman Series Technical Director.
- Cleaning may be required.
- Failure to present a vehicle to Technical Inspection will result in disqualification.

BALLAST

- Added weight must be in block form of no less than 10-pound blocks.
- No liquid of any type (except the fuel in fuel cell), pellets, or other granulated weight is allowed.
- Added weight must be securely bolted in place. Dislodged weight cannot be returned to vehicle for weighing at end of race.
- Sportsman Series Officials must approve all weight material.
- All block ballast weight must be identified with vehicle number and painted bright fluorescent color.
- Two holes must be drilled in the ballast block and attachment point for the attachment of a seal if necessary.
- Weight may be sealed at the discretion of the Sportsman Series Technical Director.

VEHICLE BODIES

- Standard production or after-market approved bodies may compete.
- All bodies must be of volume production models as selected and approved by Sportsman Series.
- Vehicles must be neat appearing.
- All vehicles must have complete bodies, cabs, hoods, doors, fenders, grills and roof, in top quality condition, in standard location, maintaining make and model body lines.
- All body parts and box covers must be attached, preventing loss of body panels and covers during competition.
- Original dimensions of all bodies must remain as manufactured, except changes that may be necessary for tire clearance.
- Sportsman Series must approve any changes for tire clearance.
- All stock production glass must be removed from race vehicles.
- All operational doors must be fastened in a manner acceptable to Sportsman Series Officials.

- All body components must be installed in their standard location ±1", as referenced by a production model vehicle.
- Complete bodies must be attached at the start of competition, pre-run or any other on track activities. If conditions warrant, the Race Director may allow trucks to practice without bedsides.
- Bodies must be attached in such a fashion as not to create a pointed or sharp extrusion when panels are removed.
- Sportsman Series mandates a loop body mounting bracket construction.
- For fan and sponsor recognition, all vehicles must display the driver's name across the roof at the windshield or door line. The series sponsor must be displayed on the hood, cowl or roof at the windshield line.

DOOR

- Door panels must retain all factory-molded contours and accent lines.
- Standard production or after-market approved doors may be used.

HOODS AND ROOFS

- All vehicles will have a roof.
- Aluminum or steel sheeting must be firmly attached to the top of the roll cage above driver's head.
- Minimum thicknesses of attached sheeting are 0.075" aluminum or 16ga. steel.
- The hood must be locked down with six positive pin fasteners equipped with clip cables, of which, four must be evenly spaced across the front of the hood and two placed in the rear corners of the hood.
- Roofs must be properly attached to the cage of the vehicle.
- Roof latches must be metal on metal. No bungie latches will be allowed.

BED AND TAILGATE

- Standard production or after-market box panels may be used.
- The panels must be attached as not to come off during competition.
- Vehicle production lines must be maintained.
- Tonneau covers may be used.

BUMPERS AND NERF BARS

- All vehicles must have safe bumpers front and rear.
- Bumpers must have looped corners.
- Front bumper cannot be extended more than 12" beyond grille and no wider than 2" inside the inner sidewall of the front tire when straight.
- Nerf bars and rear bumpers may not extend more than 2" beyond the outside front to rear tire line.
- Nerf bars are required in all buggy classes.
- Nerf bars must be rounded at the ends with no sharp corners.
- Rookie drivers must display a yellow painted rear bumper.
- Use of angle iron on any bumper, nerf bar or other outside protection is illegal.
- Use of angle iron on rear bumpers of buggies is allowed.
- Truck classes must have a hook point straight down from the A-pillar on each side of the truck for use by safety officials in case of a rollover. This hook point may be integrated into a nerf bar, but must not allow the hook to slide down the length of the nerf bar.

FLAPS

- Rear mud flaps are required.
- Buggy classes are exempt from using mud flaps.
- Kart classes are not exempt from using mud flaps.

- Mud flaps must be at least 1” wider than the width of the tire and touch the ground when the vehicle is stationary.
- Mud flaps must be installed directly behind the tire.
- Mud flaps must be made of a semi-rigid, non-brittle material such as 0.25” TIVAR 88, available from Quadrant Engineering Plastic Products (quadrantplastics.com), or equivalent.
- Rear mud flaps must be attached to the rear bumper or a non-pivoting body brace.

ROCK SCREENS

- All vehicles are required to have an acceptable rock screen securely attached to the vehicle in front of the driver.
- Short Course Karts are exempt from using a rock screen. Mod Karts are not.

ENGINES

- Engine blocks and cylinder heads must adhere to the same basic design parameters as produced by the manufacturer of the vehicle being used (except in PRO classes).
- Cubic inch of race vehicle motor must be declared at time of event registration.
- Sportsman Series Technical Director’s primary method of cubic inch measurement is the “P&G Cubic Inch Tester”.
- At the discretion of Sportsman Series Technical Director, engine displacement can be measured conventionally by the removal of one or both cylinder heads.

ENGINE SEALS

- All competitor race vehicle engines must be capable of being sealed via some permanent method such as a drilled cap on one head bolt, one intake manifold bolt, and two adjacent oil pan bolts for use in sealing engine.
- Sportsman Series Technical Director is the only individual authorized to seal any competitor’s engine.
- If seal is broken, Sportsman Series Technical Director will require engine cubic inch verification by the approved Sportsman Series measurement method.
- If requested, engines must be pumped and sealed by Sportsman Series Officials before entering into competition.
- Sealed engines may be pumped at the discretion of the Sportsman Series Technical Director.

DIPSTICKS

- All dipsticks must be secured in dipstick tube with a positive locking or securing method.

OIL COOLERS

- Oil coolers are allowed.
- Engine and transmission oil-to-air and oil-to-water heat exchangers are permitted.
- Cooling fans are permitted.

ENGINE COOLING SYSTEMS

- No icing or refrigerant chemicals may be used.
- Impellers of the water pump may be altered.
- Electrical engine cooling fans are allowed.

CARBURETOR RESTRICTOR PLATES

- Carburetor restrictor plate may be required.
- All restrictor plates must be purchased from Sportsman Series and cannot be modified in any way.
- Restrictor plate gaskets may be no more than 1/16” in thickness.

- Devices designed to increase or re-direct airflow between the carburetor and the intake manifold are not allowed.
- Vehicles must use open plenum or straight bore design spacer with standard gaskets only.
- Carburetor chokes are not considered to be restrictor plates.

AIR INTAKE AND FILTERS

- Only naturally aspirated engines are allowed.

ENGINE EXHAUST SYSTEMS

- All vehicles cannot exceed a maximum of one hundred (100) dB as measured 50' from trackside with or without mufflers.
- Collector pipes must be attached to headers in a secure manner.
- Exhaust pipes must extend past driver compartment to the outer edge of the vehicle or to the rear of the vehicle.
- All exhaust must discharge downward or outward.
- Exhaust heat shields are permitted.
- Exhaust pipes that enter the cab of the vehicle must have a protective heat shield.

ENGINE AND VEHICLE ELECTRICAL SYSTEM

- No computerized systems are permitted, unless Sportsman Series Tech approved.
- Any make or brand of spark plug may be used.
- All vehicles must have a working alternator/generator system.
- All vehicles must have a self-starter in working condition.
- Vehicles must be capable of starting on their own power. After race is underway, vehicles may be started by hand pushing on pit road only.
- All electrical switches must be located on the dash panel.

MASTER ELECTRICAL CUT-OFF SWITCH

- A master switch that will shut-off all electrical power, and the engine, must be so labeled and located on the left dash panel. This rule applies to truck classes.
- A master switch that will shut-off all electrical power, and the engine, must be so labeled and located in the rear of the vehicle, outside the cab, accessible by rescue personnel. This rule applies to all classes.
- The master on/off switch must have a red circle around the switch, making the switch easily identifiable.

ELECTRICAL ACCESSORIES

- No communication/telemetry will be allowed between the vehicle and/or data acquisition system with any other item and system during any sanctioned Sportsman event (practice, qualifying, or racing) with the exception for the request of television; certain vehicles may compete with telemetry systems, as so installed by the Sportsman Series television production network requesting such information.
- Vehicles cannot carry on board computers, micro-controllers, processors, recording devices, electronic memory chips, or traction control devices. However, data acquisition systems (digital dash logger) are allowed in all classes.

TRACTION CONTROL

- Traction Control of any type is not allowed.
- Entrants whom commit a traction control offense, as determined by Sportsman, will lose all season points and be subject to suspension and fines.

DATA ACQUISITION

- Data acquisition systems are allowed.
- Only type of sensors allowed are: Temperature, Pressure, Voltage, RPM, Oxygen, and Exhaust Temperature.
- No other Sensors allowed.
- All sensor data must be recorded on the data acquisition system.
- Any sensor not sending data to the data acquisition system must be removed from the vehicle.
- Data acquisition systems used during any sanctioned Sportsman event (practice, qualifying, or racing) will be limited to only the collection, display, and storage of data.
- Any system that is capable of modifying/activating, ignition timing, air or fuel ratio mixtures, traction control, throttle position, or any other setting on the vehicle is expressly forbidden.
- Sportsman officials may require that any or all data acquisition devices or sensors be removed or disabled during any sanctioned Sportsman event.
- Downloading of the data stored on the data acquisition system to a computer for data analysis after an event is permitted.
- All teams shall provide any and all, of the data to Sportsman officials upon request during any sanctioned Sportsman event.
- No communication will be allowed between a data acquisition system and any other item or system during any sanctioned Sportsman event.

FUEL SPECIFICATIONS

- Race gas is required.
- Gasoline shall not be blended with alcohols, ethers, or other oxygenates, and it shall not be blended with aniline or its derivatives, nitrous compounds or their nitrogen/oxygen containing compounds.
- Pump gas is not allowed as it may contain additives or contaminants that could fail the Sportsman fuel tests.
- Cooling of the fuel by any means is not permitted during competition.
- In the event an “Official Fuel” is named, Sportsman Series will sample the actual fuel provided at the track by the fuel supplier and that sample will become the benchmark from which all competitors samples will be judged.
- Sportsman Series Official has the right to sample a competitor’s fuel at any time the vehicle is entered in a Sportsman Series event. All samples will be impounded for observation and/or testing by Sportsman Series or outside laboratories at Sportsman Series discretion.
- The use of nitrous oxide is prohibited.
- Any chemical testing will be conducted at the expense to the competitor.

FUEL CELL AND SYSTEMS

- The use of a commercially manufactured fuel cell is mandatory.
- No material other than standard foam as provided by the fuel cell manufacturer is permitted.
- Rear mounted fuel cell must have a chassis or body cross member of substance between the fuel cell and driver and be protected from ground obstacles.
- Fuel cell must not be defective or damaged.
- No pressure systems will be allowed. Any concealed or non-concealed pressure type containers, feed lines or actuating mechanisms will not be permitted, even if inoperable.
- Electric fuel pumps must have oil pressure shut-off. Loss of oil pressure must automatically shut off fuel pump.
- A momentary-on bypass may be installed. The momentary on by pass may be a push button, 2-pole starter button, which can be mounted in a position best suited to the driver.
- The oil pressure-sending units are: Part# CARQUEST #53-33582 and Delco# 25036938.
- All fuel cell fillers must have check valves installed.
- A splash shield must be in place to direct any spill away from the driver, motor and motor exhaust. A body panel is considered sufficient splash shield.

- The fuel cell cannot be vented into the driver or engine compartment of any vehicle.
- The fuel cell, in all trucks, must be located behind the vehicle cab.
- Fuel cells must be enclosed in a metal outer shell.

BELL HOUSINGS

- A scatter shield of not less than 0.25" thick must be installed over flywheel, clutch, or torque converter and transfer case area.

TRANSMISSIONS

- The Sportsman Series Technical Director must approve all transmissions.
- All forward gears and reverse gears must be in working order.
- Installed in stock order, engine to transmission to differential via a drive shaft; the engine must be located in front of vehicle.
- Engine crankshafts must be connected to the transmission input shaft via conventional clutch assembly or vane type torque converter.
- Clutch assemblies are limited to a maximum of three clutch discs.
- All transmissions must manually change gears by a lever or shifter from a manufacturer. Electronic shifters and push button shifters are not allowed.

DRIVE SHAFT LOOP

- One 360 degree solid steel drive shaft loop, no less than 2" wide and 0.25" thick, must be placed around each drive shaft.
- A round steel tube no less than 1" OD with a wall thickness of at least 0.095" may also be used .
- The loop must be designed to prevent the shaft from contacting the ground or entering the driver compartment in the event of a shaft or joint failure.

REAR AXLE/DIFFERENTIAL

- Rear axle ring and pinion may be of any gear ratio.
- Quick-change rear ends are not allowed.
- Only steel axles are permitted.
- Independent rear suspension is not allowed.
- The rear end assembly must be in stock location.
- Rear differential must be spool type only.
- The differential/spool/axle assembly must not allow one wheel to turn independently of the other, either in a forward or backwards rotation.
- Rear differential must have a minimum of 1-1/2" inspection bung or plate placed in such a manner that Sportsman Series Tech can see and identify the spool.

TIRES

- Only one tire per axle wheel position is permitted.
- Inner liners are only allowed in specific classes. Check the Technical requirements of each class.
- D.O.T. tires are required. Sizes are mandated in each class's general rules.
- Tires may be grooved unless specified otherwise in the rules for that class.
- Sportsman Series definition of the term D.O.T. is as follows:
    - Must meet all D.O.T. guidelines, and tests, and be stamped accordingly.
    - Must be part of a full line of like tires available through retail dealers.
    - Must be readily available to the general public in quantity if requested.
    - Model of tire must be offered in multiple sizes and conform in size with industry standards.

    - Retail pricing must be competitive with other manufacturers of like tires.
- Manufacturers wishing to compete in a D.O.T. Class must submit, no later than 60 days in advance of the first competition:
    - Size or sizes of tires intended to use.
    - Design measurements and weight of tire.
    - Target design durometer measurement of tire, using an ASTM D2240Type A Durometer.
    - Digital picture of tread area as molded.
    - Sample catalog, listing intended tire.
    - List of retail distributors where tire is available.
- "One-off" or limited run tires will not be allowed.
- All tire measurements will be taken at 20.0 PSI unless otherwise noted.

WHEELS/LUG NUTS/BEAD LOCKS

- All wheels must be in good condition.
- Lug nut must be open ended and of proper size.
- All competition vehicles must have recessed bead lock bolts.
- Studs must extend a minimum of two full threads past the end of the lug nut.
- If bead lock opening is more than 8" diameter, wheel studs may be no closer than 1-1/2" from the outer most face of bead lock.
- Stud ends must be rounded.
- Any cutout for a valve stem opening must be radiused and capped.
- Snap clips or dzus fasteners on wheels are not allowed.

NUMBERING/ MARKING/IDENTIFICATION

- All vehicle numbering is subject to approval of and assignment by Sportsman Series
- Vehicle number must be placed on the upper left-hand corner of the windshield area. Number must be a minimum of 3" in height and easily visible by track crew, announcing tower, timing staff.
- All vehicle numbers must be solid black on a white background and must allow prompt identification by Sportsman Series Officials at all times.
- Numbers must have 1" of space between them
- All numbers must have a minimum height of 8", and be a minimum of 1-1/2" wide.
- Minimum number plate size is 10" high by 14" long
- One number must be on the rear of the vehicle facing rearward.
- One number must be on each side high and close to the back of the roof.
- All numbers must be mounted in such a way to stay clean and unobstructed.
- Foil or reflective numbers are not permitted.
- Sportsman Series Officials may require a competitor to use a different number to avoid confusion or duplication at a race.
- In the event that a vehicle number is not visible from timing and scoring, the competitor will not be scored. It is the competitor's responsibility to make sure their vehicle number is visible during all race conditions.
- Advertising on race vehicles must be in good taste.
- Competitor will have the option to use special award or contingency decals. Non-participation will disqualify competitor from sharing awards or prizes from special award or contingency sponsor.
- Sportsman Series may require the use of specific Sportsman Series sponsor decals.
- Team vehicles with the same paint and colors must have distinguishing markings of some kind.
- Any race vehicle being sold during a race season is required to change to an unused number.
- Any race vehicle being rented to multiple parties during a race season is required to change to an unused number each time the vehicle is rented out to a new party.

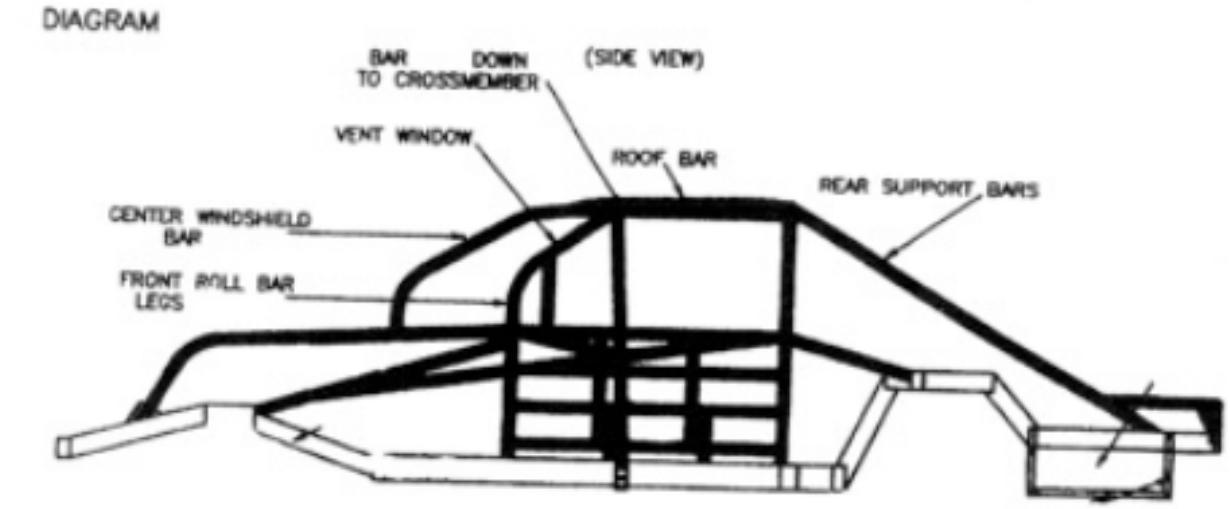
TIMING & SCORING

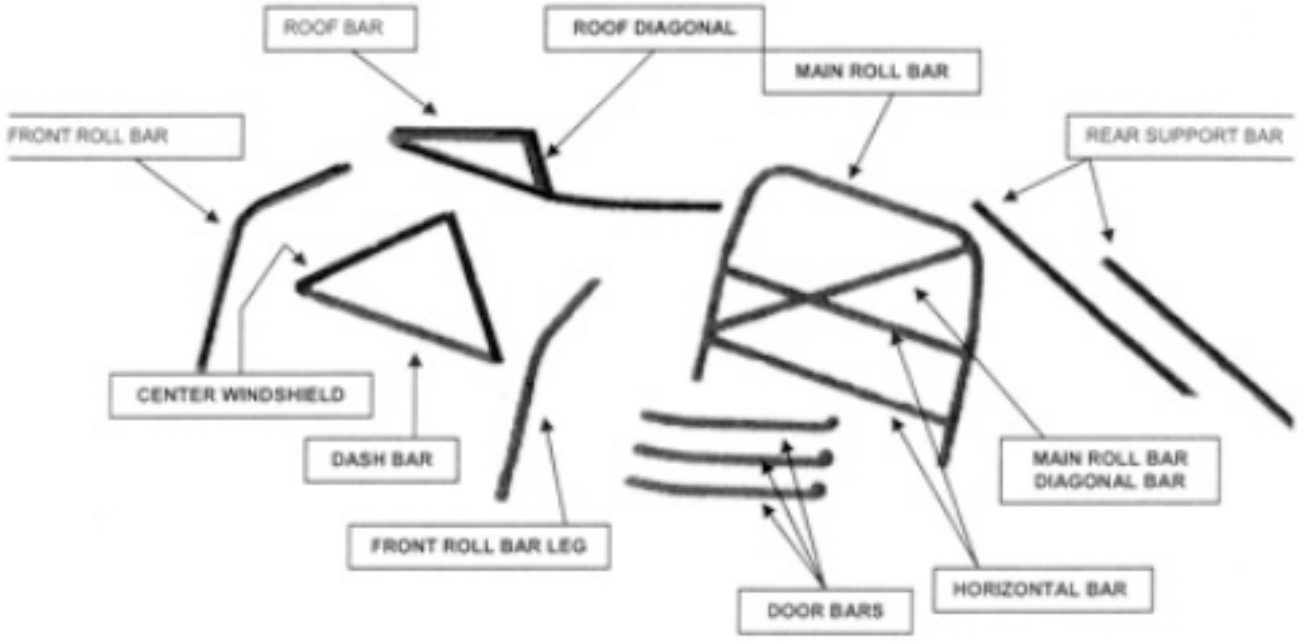
- All Sportsman classes are required to carry a functioning transponder.
- MYLAPS transponders will be used in Sportsman divisions until further notice.
- The transponder must be mounted vertically, at a maximum of 120 cm (4') above the track and no further forward than the vertical plane created by the leading edge of the front tire.
- The transponder must have clear view to the track with no obstructions, metal, or carbon fiber underneath.
- Maximum operating temperature of the transponder should not exceed 122F/50°C.
- It is the entrants' sole responsibility to insure the transponders are installed and functioning properly.
- Sportsman Series will not be responsible for qualifying times and/or race finishing positions of vehicles with inoperative or malfunctioning transponders.

RADIOS

- A spotter with radio communication is mandatory.
- Radios must be of two-way voice communication type only.
- Each race team is responsible for meeting FCC requirements and regulations.
- Radios must operate independently of vehicles electrical system.
- Radio communication between team drivers is not permitted.
- All radio frequencies must be approved and reported to Sportsman Series prior to their use.
- No scanning type radios that can transmit voice or other communicative noise will be allowed. Such devices when detected will be confiscated by Sportsman Series.
- Either the driver or spotter is required to have a Nitro-Bee and/or radio setup to receive communication from Race Control.

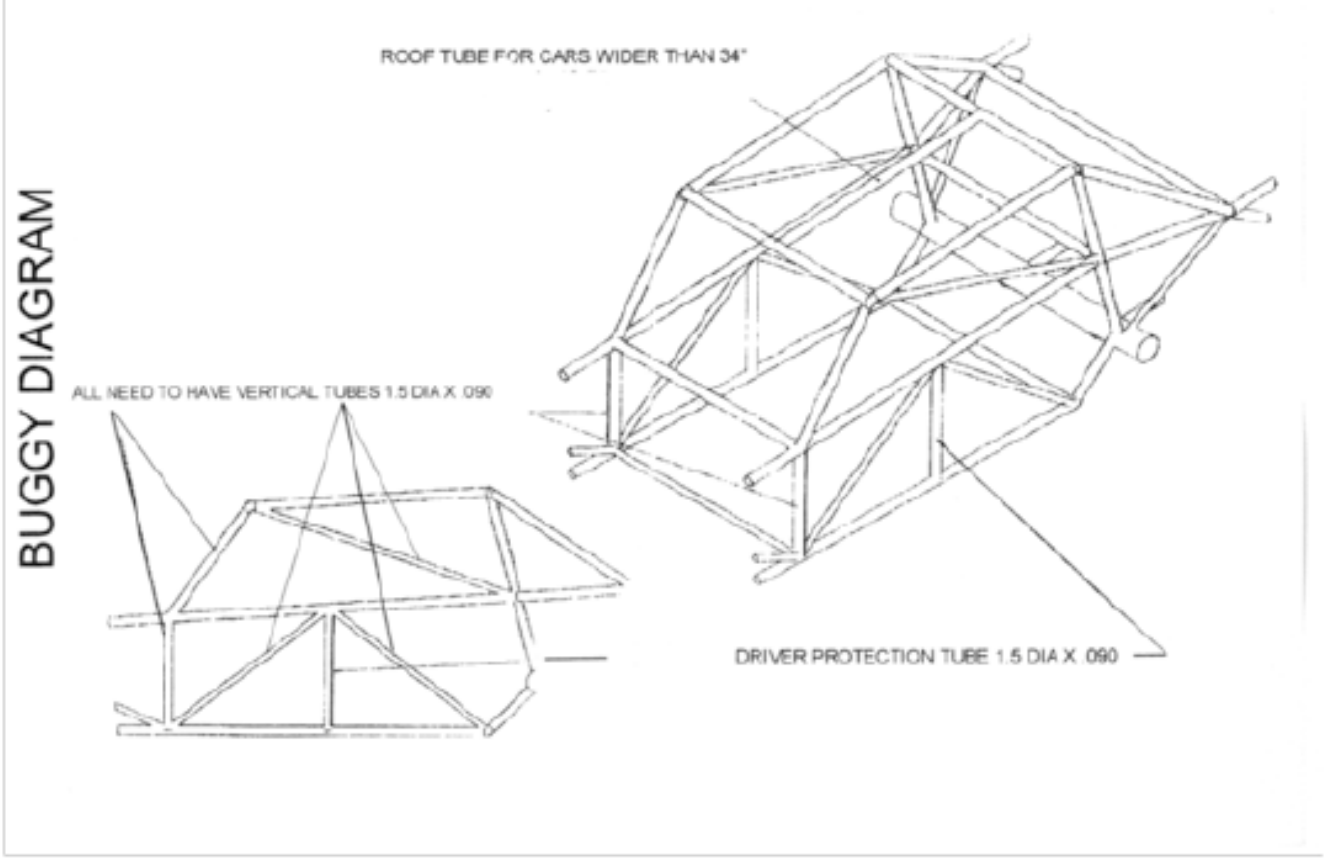
ILLUSTRAIONS





ROLL CAGE CONSTRUCTION DIAGRAM

BUGGY DIAGRAM



CORNER OF
MAIN HOOP
INTERSECTION

FRONT LOWER HOOP
INTERSECTION

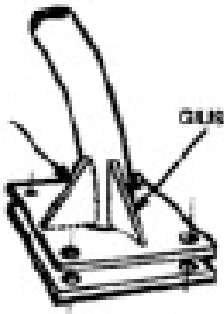
CAPPING PLATE

3/16"

3/8" I.D. TUBING TO BE
WELDED INTO END OF STAY

GUSSET
UNDER CURVE

GUSSET



BRACING PLATE TO BE
FASTENED WITH 3/8" GRADE8
BOLT OR BETTER

FUEL CELL ROUTING