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Rock Crawlers Association Of America Rule Book 2003

For RCAA National Championships, CALROCS, NARRCA, and RCRC Regional Championships.

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Introduction

The Rock Crawlers Association Of America's (RCAA) official rulebook is designed to promote the growth of rock crawling through advancement of technology, safety and competitiveness of events, as well as recognition and respect for environmental issues.

We (RCAA) recognize that in order for this sport to grow, it must have rules that are followed in a fair manner. This rulebook is designed to complete the first part of these needs. We will do all things possible to ensure that the second is completed throughout the year.

The goal of the Rock Crawlers Association Of America is to maintain a high level of relationship between spectator and competing vehicle while allowing technology to advance in four-wheel drive applications.

All items listed in the vehicle requirements section are allowed. Due to the nature of invention, RCAA must consider that all items not listed are not allowed. Competitors may submit a written request for approval and, if approval is given, an amendment will be issued as outlined. The RCAA agrees that all written requests are confidential and any designs or conceptions are given to the rightful owner.

It is the total responsibility of each participating competitor to ensure that their actions and equipment are in accordance with all designated RCAA rules, as they may be clarified from time to time. The publication and compliance of the Rock Crawlers Association Of America rules does not guarantee, warrant or imply safety to members or non-members using this publication. The rules of The Rock Crawlers Association Of America are a guideline for the competitor or participant of rock crawling. Acceptance and application of the Rock Crawlers Association Of America rules are in no way a guarantee against injury or death to any participant, spectator, competitor or others.

RCAA may amend rules and advise existing competitors by one of the following means.

- 1- On our website at www.rockcrawler.org.
- 2- Via FAX to existing
- 3- Phone contact with any one member of a team.
- 4- Printed in the official magazine of the RCAA.

Rock Crawlers Association Of America Terminology

Amendment

A change in the Rules through a predetermined Process RCAA reserves the right to amend these rules from time to time. Any amendments will be made known by one or more of the following methods for a minimum time period of 7 days for competition rules and 30 days for vehicle requirements prior to becoming in effect.

Buggy

Tube Chassis/custom built vehicle

Classes

There are several available classes to competitors in The Rock Crawlers Association Of America. These classes are listed as follows. All classes may or may not be ran at any particular event or series.

Modified Stock- The modified stock class utilizes OEM based vehicles with allowed upgrades and modifications as outlined in the Vehicle Requirements and Limitations section of this rulebook. Vehicles competing in the Modified Stock class may not compete in the Super Modified class.

Pro Modified- The Pro modified allows for higher technology than the modified stock class. The primary difference between the Pro Modified and Super modified classes is the seat configuration , tub width, and rear steer.

Super Modified- The Super Modified class is for exotic buggies and highly modified stock vehicles. Those running this class cannot be scored with the modified stock class.

Competitor

Driver or spotter signed up to compete in an event.

Contingent

An agreement between the Team and a manufacturer who is signed up with the RCAA as a contingent manufacturer. Generally, the agreement is for drivers to be paid if they run stickers and/or product on their vehicle and finish an event/series in a top position. The RCAA is not responsible to administer contingency programs. The RCAA will post and distribute event and series points to contingent sponsors.

Disputes A disagreement with a judges ruling or a vehicles/teams compliance with rules.

Effective Date

Pertaining to rules, this is the date when rules and rule amendments go into effect.

Event

An RCAA motor sport event, including sign up/sponsors day and competition day/days. The event includes the entire day and not just the time at the course.

Finality Of interpretation and application

In order to promote Rock Crawling motor sports and to provide prompt and final competition results, all RCAA competition/participants agree that determinations by RCAA officials as to the applicability, clarification and interpretation of the RCAA rules are non-litigatable, and they agree that they will not initiate or pursue litigation of any kind against the RCAA or anyone acting on behalf of the RCAA, to reverse or modify such determinations, or to recover damages or to seek any other kind of relief allegedly incurred or required as a result of such determination, unless the RCAA officials made such determinations for no purpose other than a bad faith intent to harm or cause economic loss to the competitor or official. If a competitor or official initiates or maintains litigation in violation of this covenant, that competitor or official agrees to reimburse the RCAA for the costs of such litigation, including attorney fees. Competitors or officials further agree that if any litigation is brought against the

RCAA for any reason the matter will be tried before a judge and recognizes Salt Lake City, Utah as having venue and jurisdiction, and hereby waives any right to trial by jury in such action.

License Eligibility

All competitors must be licensed to drive a motor vehicle in their home state and have a current drivers license.

OEM

Original Equipment Manufacturer.

Officials

Any person appointed by the Promoter of any RCAA sanctioned event to officiate as an employee, volunteer, or independent contractor at any RCAA sanctioned event.

Promoter

Any individual, partnership, joint venture, corporation, or any other type of legal entity that has a binding sanctioning promoter contract with the RCAA and is totally responsible for, but not limited to, safety of the facility, finances, availability of the facility, insurance of the facility, advertising of the event, and other competition related activities of the event.

RCAA

Rock Crawlers Association Of America

Special Rules

Extraordinary circumstances or conditions regarding an event, obstacle or competitor will necessitate the application of special rules as determined and applied by the RCAA. Such special rule must apply to the Event and be properly published or announced prior to the event by means of bulletin, newsletter, internet posting on the RCAA official site (www.rockcrawler.org) pre-event meeting or phone/FAX.

Safety

See safety under miscellaneous course rules.

Rock Crawlers Association Of America Course Rules**Point System**

The following lists point assignments for competition in all RCAA events:

Stopping

One point will be issued after a competitor's vehicle has stopped forward progress for four (4) seconds. Stopping is defined as a vehicle not making forward progress. A team whose vehicles tires are rotating but the vehicle is making no progress is considered stopped and will be marked as such. Once stopped, the competing team will receive no further calls until forward or backward progress is made.

Backing

One point is issued for a purposeful reversal by a competitor. A purposeful backup is considered when a driver puts the vehicle in reverse and backs, pushes in the clutch and rolls back, etc. A back is not counted when the vehicle is nudged back by the obstacle. A reverse in an attempt to save a rollover is considered a back and will receive backing points. If a competitor has stopped (after the full four seconds) he receives his points for the stop. If he then chooses to reverse he will receive the point for the reverse. If a competitor reverses prior to the four-second-stop rule, he will receive only one point for the back.

Gates

Each obstacle is marked with gates or flags. The gates include the start gate, all markers in the course, bushes that are tagged with yellow ribbon, and the ending gate. Ten (10) points will be issued for every gate touched. The gate does not have to fall to be counted. It only needs to be touched by any part of the vehicle. This includes the base

holding the gate. Exhaust, wind, bases that fall over due to unstable rocks that have been touched by the vehicle will not count as a touched gate. Spotters, winch cables, pull straps, etc.; will count if a gate is touched. Once a gate is touched it is considered disqualified from that obstacle for the team who touched it and may not be counted for a second contact. Rock building to allow a “bridge” over the gate will not be allowed. This includes building high points on each side of the gate with the intent to put the gate in a valley.

Gates are designed to lay out the course; however, a competitor may exit a gate and return through the same gate without points or obstacle disqualification in areas designated and advised by the official. Competitors must stay within the roped off areas (these areas do not count as points.) Exceptions to this must be approved with the judge prior to starting the obstacle. This is to ensure that the area is cleared of spectators and non-essential people so that safe passage may be made. The judge has the right to disallow any diversion off course.

If a vehicle tire is on the outside of a gate (outside of the course layout) a gate penalty will be issued.

If 50% of the vehicle goes outside the gate the team will be disqualified.

From time to time brush or trees will be marked with orange. Hitting the tree or brush thus marked counts as a gate.

Credit Gates

In an effort to reward those who attempt an obstacle credit gates are issued throughout the course. Credit gates are marked on the right hand side of the vehicle with red. Each credit gate gives back 2 points and is counted after the rearmost portion of the vehicle clears the gate. This clearing is past the line between the right hand credit gate and the left hand gate. If credit gates are hit they count as any other gate. They will, however, still credit the 2 points once cleared. From time to time a second, harder, route will give more credit gates.

Tools

Vehicles must pass through an obstacle under the power of the vehicle and spotter. Therefore, tools may not be used. Tools are considered any item used as a means of leverage or bridge building that is brought with the competitor and not found naturally in the area surrounding the obstacle. Rocks may not be carried in a vehicle. Spotters may, and are requested to use straps on the vehicle to aid in spotter leverage without endangerment and will not be assessed tool infraction for such use.

Leverage: Teams may not add a leveraging device to their vehicle. Leverage points on a vehicle are approved if they are a permanent part of the vehicle (example: A welded on push bare would be allowed. A quick detach push bar that was added and removed throughout the event would not.)

Rear Steer

To ensure consistency and exactness of scoring, rear steer penalties will be issued only one time per obstacle. Rear steering will be assessed eight (8) points per obstacle once it is used on the obstacle. Rear steering can only be used by the Super Modified class vehicle. Point assessment may be altered for regional series.

Spotter Manipulation

Two (2) points will be credited per obstacle once completed if a spotter does not pull on a strap.

The spotter may not touch the vehicle in an effort to aid movement.

The vehicle must be completely stopped (including tire movement) prior to spotters touching the vehicle or reaching into the passenger compartment.

Teams may attempt to right a vehicle in the event of a tipover. Vehicles must be in park or gear prior to righting.

Winches

Winching is assessed a thirty point (30) point penalty for use. Winching is considered when a team hooks a winch cable/rope to any anchor and begins to load the cable. A loaded cable is considered as soon as the cable has tension on it. As an example only, a cable that is off of the ground but sagging has tension on it. However, RCAA recognizes that all pulls are not straight and therefore does not consider that a cable must be off of the ground to be counted.

A separate call is issued each time a cable is attached and loaded on an anchor point. Therefore, two anchor points on one obstacle will point out the obstacle.

There are occasions where a judge or marshal may allow a cable to be attached to an anchor for safety and no points will be issued as long as the winch is not used to pull the vehicle. This is called a safety cable.

Breakdown Time

Each competitor is allowed forty five (45) minutes of cumulative breakdown time per day of competition.

If a breakdown occurs the team may use the time left on the obstacle to begin repairs. The team must, however, immediately move the vehicle off of the course when they have timed out (see timing out below). Repairs and work done while on the obstacle clock must be performed entirely by the team (Driver and Spotter). Outside help will immediately time out the team and the vehicle must be moved. Once timed out, the competitor must advise the Judge of the obstacle that he broke on that he is using his breakdown time. The judge will mark the competitors scorecard with the time of day and sign it. When the repair is completed the team must tell the SAME judge of the completion. The Judge will then mark down the time, sign it, and mark down the number of the vehicle the competitor is following. Competitors have only three minutes after they have ended an obstacle to declare their breakdown time. After the three minutes the judge will not allow a breakdown time to begin. The team does not have to use breakdown time if they feel they can make the repair prior to the time they are required to be on the next obstacle. Teams who move to an obstacle out of order and without a judges signature will be disqualified for that day and receive forty (40) points for each remaining obstacle.

Point Out/Time Out

The maximum allowed points are 40. Points are accrued and, once the maximum allowed points is reached, the team is pointed out. The team receives 40 points on their scoresheet and moves to the next obstacle using the quickest allowable route possible. If the time allowed on an obstacle runs out, the team is pointed out and moves to the next obstacle as listed above.

Miscellaneous Course rules

Judges Ruling-

RCAA Judges have the final say in all cases save for a misunderstanding of the rule. RCAA recognizes that there will be, from time to time, errors in a judge's call as there are in all sports. RCAA Marshals can overturn a judge's decision in cases of misunderstanding of rules or extra ordinary cases. This is true whether the points are given to a team or taken away. Treatment of Judges and volunteers falls under sportsmanship.

Vehicle Rules/Fair play-

Only competitors may challenge a vehicle as to its compliance with the rules. In doing so, the challenge must be made no earlier than 6:00 AM on the sign in day and no later than 12:00 PM of the final day of competition for the specific event. This must be done in writing and given to an RCAA Marshall. The RCAA will then review the vehicle. Any costs for such a review (mechanics' costs, etc.) are the responsibility of the competitor making the challenge.

RCAA, having reviewed the vehicle and finding an infraction, will take appropriate action up to and including making the challenged team correct the problem, assign points against the vehicle's team (From 1 to 40), or disqualify the vehicle and/or the team from the obstacle or obstacles or the entire event.

If the RCAA reviews the vehicle and finds all in order pertaining to the challenge, the challenging team will be assessed a minimum of 10 points and a maximum of 60 points.

Safety

The Judge has the right but not the responsibility to advise spotters and drivers of unsafe acts. Further, any act deemed unsafe by a judge is to immediately be discontinued. Failure to comply can result in an immediate point out and the team will be asked to move to the next obstacle. Safety requirements include, but are not limited to:

Seat Belts: Must be worn at all times while driving or riding in a vehicle during an event. This includes all passengers and time ran between obstacles as well as time to and from the event site.

- Winch cable: RCAA approved winch cable cover must be used prior to tensioning the cable.
- Fluid Control: Adhere to all fluid related rules. Excessive lose of environmentally damaging fluids may result in a point assessment up to 5 points.
- Loose Articles: All items must be securely fastened to prevent injury in the event of a rollover. Coolers, misc parts and so forth are to be removed from the vehicle prior to each obstacle.
- Fire Extinguisher: two fire extinguishers mounted on the roll cage on both the right and left hand side. Extinguishers should not be mounted close enough to fuel cells or potential fire hazard areas that would make it dangerous to obtain.
- Helmets: All competitors riding in a vehicle must wear an approved helmet while competing. Spotters must wear head protection (soft material not permitted) while on an obstacle.
- Medical Conditions: Teams must advise an RCAA marshal of any medical conditions that they may have that would affect their ability to perform or become a concern during competition. (seizures, diabetes etc...)
- Handles: Handles are required on the rollcage. These are to be mounted so that in the event of a rollover the hand is safe. Holding onto the outside of the cage is not allowed.
- 1st Aid: First aid kits containing medical tape, gauze, band aids, and wrap are required in each vehicle. Rock Crawling is an inherently dangerous sport. Each competitor assumes that risk when he or she participates in an Event. The risk of serious injury or death cannot be eliminated and, in fact, will always be present at a high level. Competitors are urged to advise their spouses and next of kin, if any, of this fact. By competing, all competitors, both spotter and driver, agree to the following.

In consideration of being permitted to participate in any event sponsored, promoted, or directed by Rock Crawler, Inc., The American Rock Crawlers Association, The Rock Crawlers Association Of American, the competitor for himself/herself his/her personal representatives, heirs and next of kin, hereby releases the corporation, and their respective officers, directors, promoters, sponsors, employees, agents and volunteers (“releasees”) of all liability to the competitor, whether caused by negligent act or omission of releasees or otherwise while the undersigned is for any purpose participating in such event. It is fully understood by each of the competitors that there is some inherent risk associated with this event, including damage to vehicles and to the individual.

In addition, the competitor agrees to indemnify and hold harmless the releasees from any loss, liability, damage, or cost they incur due to such participation by the competitor, whether caused by releasees’ negligence or otherwise. and agrees to assume full responsibility and risk for bodily injury, death, or property damage from releasees’ negligence or otherwise while the competitor is participating in this event.

Each competitor acknowledges and represent the following while competing:

- 1- That he or she has read the foregoing release and waiver of liability and indemnity agreement.
- 2- That he or she has at all times, while riding in a vehicle participating in an event, wear his or her respective seat and shoulder belts and helmet.
- 3- That the owner/driver certifies that he or she has inspected this vehicle and that the same certifies it to be in good mechanical condition.
- 4- The owner/driver has informed himself/herself about the event, either by prior participation or by investigation into the event.
- 5- That the driver or any other person(s) in a vehicle participating in any RCAA event may choose to bypass any obstacle and, therefore, assumes all risk and liability, as indicated above.

Although safety generally is everyone's concern and certainly the highest priority of The Rock Crawlers Association Of America, the final responsibility rests on the competitors. **Competitors can, at any time, choose to bypass any obstacle or area they feel uncomfortable or unsafe driving.**

DOT approved Helmets must be worn at all times while driving a competition vehicle on the course.

All safety requirements and rules must be followed at all times

Injury Report

Any competitor (driver or spotter) must report any injury to an RCAA marshal prior to leaving the premises (if such competitor is able to make such report.)

Changing Vehicles

All teams must complete each event with the one signed up vehicle they began with. Switching vehicles during an event is not allowed.

Judges

RCAA Judges have the final say in all cases save for a misunderstanding of the rule. The RCAA recognizes that there will be, from time to time, errors in a judge's call as there are in all sports. RCAA Marshals can overturn a judge's decision in cases of misunderstanding of rules or extra ordinary cases. This is the case whether the points are given to a team or taken away. Treatment of Judges and volunteers falls under sportsmanship.

Driver Order

The order of competitors is based on a draw system for the first day of competition. The second day of competition is based on the scores from day one. Those who have the lowest (best) score on their course from the first day will start last and on the first obstacle. Teams may be moved to other obstacles in the event of a bottleneck. Special terms may be allowed (Example: Walking the obstacle) if a team is moved to a different obstacle number.

Drivers Meeting

All competitors are to attend drivers meeting. This is usually at the course site in the early morning of the day of the event. Specific information is given at these meetings. Failure to attend is not an excuse for infractions of changes made at the drivers meeting.

Drugs/Alcohol

Drugs and alcohol will not be permitted in any degree during competition. Competitors who are found to be consuming or who have consumed drugs or alcohol, or are under the influence of drugs or alcohol during competition will be disqualified from the event they are participating in. All series points will be forfeited for the specific event. Further, disqualification for the remainder of the year is possible.

Spotters

Spotters may not touch the vehicles in an effort to manipulate the position of the vehicle. Spotters may pull on straps (spotter straps).

Spotter Straps

Straps used by spotters as pulling points must be approved by RCAA. All straps must have a handle (similar to a water ski rope) that is at least 10" wide. Side straps handles can be no less than ten (10) feet from the vehicle. Front straps can be no less than twenty-five (25) feet from the vehicle. Front straps will be checked and tagged at drivers meeting. Shortening the distance of the straps will result in a 10-point penalty.

-Spotters may not wrap the strap around any part of their body.

Sportsmanship

During all RCAA events proper sportsmanship is required. If a competitor or team member (including backup help) promotes un-sportsman like conduct, is rude or abrasive to officials or local authorities, destroys property, displays drunken or disrespectful behavior they and/or the entire team may be disqualified from the current event or future events. The RCAA's goal is to promote a respectable sport and promote sponsoring companies in a professional light. Therefore un-sportsman like conduct will not be tolerated.

Purse

Purses will be paid out based on the following percentages:

<u>Position</u>	<u>Percentage Of Purse</u>		
1 st	35	6 th	7.0
2 nd	25	7 th or less	Prizes may be given
3 rd	16		
4 th	9.0		
5 th	8.0		

Vehicle Requirements and Limitations**Modified Stock Class**

The Modified Stock Class is designed to facilitate modified original equipment manufacturer (OEM) vehicles. To that end all teams must proclaim their vehicles year make and model at the time that they send in their event application. Changes may be allowed provided that RCAA has enough information about the replacement vehicle to properly and fairly inspect it.

Axles

RCAA considers axles to be the link between wheels on both front and rear ends. This application begins at the end of the drive shaft and ends at the flange for wheels. It does not include brake assemblies.

The following are approved for competition:

- Axle widths no more than 80" unless the proclaimed vehicle came with wider axles from the factory. This is measured from the outside of the tire to the outside of the opposite tire.
- All axles must be mechanically differentiated (geared)
- IFS or solid axles are allowed.
- Axles must be located in such a way that the only change to wheelbase is due to reactive forces.
- No manual change of axle wheelbase is allowed.
- Both Differentials must use some form of 100% locking device.
- Vent tubes must be attached to a fluid containment container.
- Portal axles are not approved for conversion.

Body

RCAA considers the body to be the vehicles outer layer and includes the floor, sides, rear, hood, fender, grill, and firewall.

The following are approved for competition:

Grill-

- Grills must be an OEM configuration and size, and approved by the RCAA.
- The grill must cover the entire front portion of the radiator.
- Grills must also include two headlights. Headlights may be substituted for in-grill off road driving lights.
- Grills may not be narrowed from factory widths.
- Grill Heights may not change.

Hood-

- Must cover the entire engine compartment and follow the factory form.
- OEM hoods may be substituted for hoods made of different material as long as it conforms to factory configurations.
- One-piece hood and fenders are approved as long as they conform to factory configurations.

Fenders-

- Vehicles must have an outer and inner front fender.

- Fenders must be mounted to the main portion of the passenger compartment or cowl and extend to the grill.
- All OEM fenders are approved for competition.
- Vertical material may be Trimmed.
- Minimal cutting is allowed for extended shocks on the front only.
- Front inner fenders must have a 3" hole that is used only for fire suppression.
- Rear inner fenders must be maintained.

Tub/Cab

- Must house two front passenger seats mounted side by side at both the left and right side of the vehicles passenger compartment.
- General condition must be in good shape without excessive rust or damage that would warrant concern for safety.
- Excessive body damage, as determined by an RCAA official, is not approved.
- All OEM tub/cab configurations are approved for competition. Aftermarket tubs must be OEM width and RCAA approved.
- No bolt in body panels are allowed (zeus clipped, quick replacement panels). Repaired panels are acceptable.
- Complete floors must be maintained.
- No cutting of floor is allowed with the following exemptions.
 - The center section of the body is approved for cutting & raising to allow drivetrain clearance directly over drivetrain components. This does not include axles or axle shafts.
 - Tubs/cabs may be cut along the bottom (rocker) area of the vehicle.
- The back of the tub/cab may be trimmed horizontally to match the rocker height. A minimum distance of 24" from the center of the axle to the back of the body must be maintained on bobbed vehicles. Trucks with non-convertible tops must maintain top.
 - 1- Glass may be removed (recommended). All non-safety glass must be taped completely.
 - 2- Doors may be removed.

Brakes

RCAA considers the brakes to be the source of control for slowing and stopping wheels.

The following are approved for competition:

- Mechanically operated brakes.
- Hydraulic assisted brakes
- The brake pedal on the floor must operate all brakes.
- Competitors may use secondary brakes for operating individual brakes on the vehicle.
- Transmission brakes are not approved.
- Emergency brakes are required.
- Emergency brake hydraulic locks or mechanical locks are approved for emergency brakes.
- Emergency brake gears (mechanical type) must be in good shape and not worn to a point of possibly disengagement while under a load.
- Brakes must be in good working condition with adequate pads. Brakes that are worn out or oil soaked will not pass.
- Brake lines must be in good shape without leaks and ran in a safe route from cylinders to brakes.
- Master and slave cylinders must be in good shape without leaks. Adequate braking resistance at the pedal is required.

Bumpers

RCAA considers the front bumper to be the foremost part of the frame excluding push bars, stingers, etc. The rear bumper is considered to be the rearmost part of the vehicle.

- Bumpers must connect the right and left frame rail.

Cooling

RCAA considers the following to be part of the cooling system. Radiators, hoses, engine ports, heater hoses, coolant product,

The following are approved for competition:

- Air Cooling
- Water-cooled systems
- Radiator must be in the factory position and covered so that, in the event of a break in the radiator or hoses, spectators, spotters and drivers are protected from the coolant spray and spill.
- Radiators must be securely mounted.
- Hoses and connections must be in good condition without cracks, all connection must have a tightening device that utilizes a mechanical means to secure the connection.
- Top mount (roof mount) radiators are not approved.
- Radiators must have an OEM or aftermarket overflow bottle, securely mounted, connected to the radiator by an overflow tube. Overflow bottles may not be mounted over or in the passenger compartment. Overflow bottles may not be beverage containers.
- The use of Ethylene glycol is not permitted.
- Vent tubes must be attached to a fluid containment container

Drive shafts

RCAA consider the drive shaft to be the working link between the transfer case and the axles.

The following are approved for competition:

- All mechanical drive shafts

Electrical

RCAA includes all wires, lights, batteries, and any other item controlled by or conducting electricity as its function to be part of the electrical system.

The following are approved for competition:

- Batteries that are in good shape with adequate mounting to keep the battery in place in the event of a roll.
- All batteries must be of a non-spill type.
- Mounting must be a clamp type mount that “cages” the battery in position. Foot type clamp mounting is not approved.
- Master kill switch that shuts down every electrical system is required to be mounted on the dash, clearly labeled and in proper working order.
- Wires must be in a condition and position that is safe. Exposed or burned wires are not approved.

Engine

RCAA considers the system designed to create torque and horsepower, including blocks, heads, valve cover, oil pan and all internals of such system to be classed in the engine.

The following are approved for competition:

- All engine sizes and configurations.
- Engine must be free of leaks of fluids that pose a fire threat.
- Engine mounts must be in good condition and of adequate material to support the engine
- Vent tubes must be attached to a fluid containment container
- Dipstick caps must be sealed.
- Vent tubes must be attached to a fluid containment container

Fuel System

The fuel system includes all components and connections used to store, deliver, and mix fuel and air on the vehicle. This includes the type of fuel used.

The following are approved for competition:

- Carburetors
- Fuel Injection systems that either injects fuel from a throttle body or thru ports.
- Non-vented gas caps (Vented gas caps are not approved)
- Unleaded, leaded, propane, natural gas and diesel fuels.

- Alcohol is not approved for competition as a main fuel (see above)
- Fuel systems must be sealed with a rollover valve installed in the fuel vent line.
- Ball valves must be installed on all fuel lines including vent lines. Ball valves must be mounted under the vehicle.
- Fuel lines must be ran from the fuel tank or cell to the engine in a safe route.
- Fuel lines must be free of leaks or cracks in hoses.
- Throttle assemblies must be in good order and work smoothly. Throttles that do not move smoothly throughout their entire range of motion will not pass.
- Hand throttles are approved
- Vent tubes must be attached to a fluid containment container.

Frame

RCAA considers the frame of a vehicle to be the two rails supporting the mounting of the body and drivetrain as the main frame, and connecting cross members as the sub frame.

The following are approved for competition:

- All OEM Frames.
- Frame reinforcement is approved
- All RCAA approved replacement frames built by commercial manufacturers and available on the market as a promoted product.
- Boxed or semi boxed Mainframe material made of a magnetic steel.
- No full or partial round tube main frame rails.

Vehicle Numbers

Vehicle number must be displayed on the right, left and front of the vehicle. Front numbers are to be placed on the hood.

- Numbers are to be no less than six 6" tall.
- Numbers must be red on a white background.

Roll bars/Cages

RCAA considers the cage as the safety bars surrounding the driver. Designed to protect the occupant in the event of a rollover.

The following are approved for competition:

- Six (6) point mounting cages covering the driver.
- OEM bars are approved for a portion of the rollcage.
- Handles are required on the interior portion of the rollcage.
- Round steel tubing (D.O.M Preferred) 1.5" O.D with 0.120" wall is compulsory for the basic roll cage and must be RCAA approved. Aluminum and /or soft metals are not permitted. Roll bar construction must be welded. Roll cages made of other material or in other wall thickness/diameters must be done through an RCAA approved builder and have a certification and serial number on file with the RCAA. Contact the RCAA at 801-446-5337 for information.
- Connection positions of the roll cage must tie in to the frame of the vehicle; Body mounts are considered a tie in point.
- The front most position must be no farther toward the rear of the vehicle than fifteen (15) inches behind the throttle and brake pedals.
- The Cage must have a total of four spreader bars between the front main bar and rear main bar.
- Gussets must be welded in the four corners of the "halo". Both in a horizontal and vertical manner. Gussets may be tubing or plate steel.
- .0040 magnetic, expanded or flat sheet metal or 1/8" aluminum or must cover area immediately over the driver seat and be welded or bolted to the roll cage. This must be surrounded by steel tubing.
- RCAA recommends a spreader bar to be mounted under the dash area to the right and left side of the front main bar.

- If doors are not ran, a bar running from the middle hoop at approximately shoulder height to the front hoop at approximately shin height must be ran. This can be a bolt in piece.
- A “periscope bar” (a bar sticking straight up from the roll cage) is not allowed

Seating

The following are approved for competition:

- All RCAA approved seats having padded rib protectors and seat leg extensions on the left and the right side.
- Adequately padded headrest or neck support acceptable to RCAA official inspectors.
- Factory seats must be fastened to the tub in the factory mounting points or to the rollcage.
- Aftermarket seats must be attached to the roll cage.
- Factory mounting points must be in good condition without rust or corrosion to be approved.
- An approved four-point harness is mandatory and must be worn at all times while on an obstacle.

Steering

RCAA considers steering to be all components designed to turn the vehicle wheels to the left of right of the vehicle centerline.

The following are approved for competition:

- Steering must be mechanical. Hydraulic ram assisted front steering is not permitted.
- OEM or stock replacement steering systems are allowed.
- Full Hydraulic steering is not permitted.
- Brake Steering (See Brakes)
- Steering gear must be in the stock location with the following exceptions.
 - 1- 71 and earlier CJ with an aftermarket, readily available, relocation kit
 - 2- Toyota FJ series with an aftermarket, readily available, relocation kit.
- All steering components, ujoint, fitting must be in good working order as determined by an RCAA official.
- Hydraulic steering fluids must not leak.
- Hydraulic lines must be ran in a safe route and be in good shape, free of cracks or fraying as determined by an RCAA official.
- Rear steering is not approved for competition in this class.
- Stock steering configuration must be maintained

Stickers

RCAA recognizes that teams need sponsors to stay competitive and that some sponsors of teams are direct competitors of RCAA sponsors and that RCAA sponsors make these events possible. Because of this RCAA requires all competitors to run small appreciation stickers of the companies that make these events possible. A 2’x2’ area must be provided for this. Stickers are to be run on the sides or top of the body or wheel wells. A separate plate may be added (such as in the v of a rollcage.) Teams may run their own stickers without restriction in size. Stickers may not use profanity or be of a crude nature.

Suspension

The following are approved for competition:

- Reactive suspension systems
- Manual suspension controls are not approved in this class.
- Suspension pivot points, connecting points must be free of cracks and in good physical condition as determined by an RCAA official.
- Coil over shock suspensions are approved.
- Wheelbases may be changed by plus or minus 3 inches. Wheelbase may not be changed during or between obstacles.

Tires

The following are approved for competition:

- All factory built tires from any manufacturer.

- National Championship: All tires must be DOT approved and available through normal channels of tire distribution to all competitors. No specially produced competition only tires are permitted.
- Regional Championship: All automotive based tires. No agricultural tires are approved.
- Tire size limit is 35" measured using a measuring device and measuring actual diameter on the wheels that will be used for competition with the vehicle on the ground measuring in a horizontal plane at the tire centerline.
- Vehicles must have no less than or more than four (4) independent tires.
- Tires are to be the only source of forward, side, or back movement of the vehicle. Any device used to move the vehicle in these directions other than the tires is not allowed.
- Tires must be inflated with either air, CO₂, or water. No other substance is approved.

Transfer Case

The transfer cases transfers power to the front axle and rear axle of a vehicle.

The following are approved for competition:

- All mechanical transfer cases.
- Vent tubes must be attached to a fluid containment container.

Transmission

The following are approved for competition:

- All automatic or manually operated transmissions.
- Vent tubes must be attached to a fluid containment container.

Wheels

The following are approved for competition:

- All steel and aluminum wheels
- Bead lock wheels with locks on both the inner and outer side of the wheel or any combination thereof.
- Wheels and bead locks must not interfere with the proper operation of brakes.
- Wheels must be mounted onto the axle with a minimum of four lug studs.
- All lug studs must have the proper nuts on them.

Winches

The following are approved for competition: Winches are required to be ran on the vehicle in working order at all times while competing.

- All professionally built and sold electric, hydraulic, and power take off winches. Winch capacity must be a minimum of 6000 pounds on the first wrap of cable.
- Winches must use rope type cable substitute or cable with a minimum burst strength of nine thousand five hundred (9500) pounds (5/16 steel cable)
- Rope or cable **must** be in acceptable condition with minimal fraying or kinks.
- Clevis hook must be rated at ten thousand (10000) pounds.
- Winch must be mounted using all factory-mounting positions either on the bottom or front and back.
- All vehicles must carry an approved winch bag. These are available through R.C.A.A promoters or other sources. -Coats and blankets are not approved.
- Winch clevis hooks must have a strap at least four inches in length.

Additional Requirements

- Two Fire extinguishers securely mounted to the roll cage on both the right and left hand side of the vehicle. Mounting position must be on the vertical main bar immediately behind the driver on the left side and between the seats.
- Trucks must be mounted on the vertical main bar behind the cab behind the driver and passenger seat. Extinguishers must be easily removed without the use of tools. Extinguishers must be full.

Pro Modified

Axles

RCAA considers axles to be the link between wheels on both front and rear ends. This application begins at the end of the drive shaft and ends at the flange for wheels. It does not include brake assemblies.

The following are approved for competition:

- All axle widths, Live Axles, Solid axles, Independent, Military style drop in axles.
- Gear reduction may be prior to the axles or after the axles or a combination of both.
- Manual wheelbase changes are allowed.
- Differentials must have some form of 100% locking abilities.
- Vent tubes must be attached to a fluid containment container

Body

RCAA considers the body to be the vehicles outer layer and includes the floor, sides, rear, hood, fender, grill, and firewall.

The following are approved for competition:

Hood-

- Must cover the top of the engine completely.
- Hood scoops and breather holes are acceptable.
- Fully open space cannot exist beyond twelve (12) inches in diameter without a baffle.

Fenders-

Not required.

Tub/Cab

- General condition must be in good shape without excessive rust that would warrant concern for safety
- Tub/cab width must be 48" at the widest point.
- Must hold two seats side by side.
- Firewalls are required for fire safety and must be a minimum of forty-thousandths aluminum 20-gauge metal, or 3/16" lexan. Plexiglass is not permitted.
- Firewalls must be ran from the left outer panel to the right outer panel and separate fully, the driver from the engine compartment.

Brakes

RCAA considers the brakes to be the source of control for slowing and stopping wheels.

The following are approved for competition:

- Mechanically operated brakes.
- Hydraulic assisted brakes
- The brake pedal on the floor must operate all brakes. Competitors may use secondary brakes for operating individual brakes on the vehicle.
- Transmission brakes must be approved by an RCAA official inspector.
- Emergency brake hydraulic locks or mechanical locks are approved.
- Emergency brake gears (mechanical type) must be in good shape and not worn to a point of possibly disengaging while under a load.
- Brakes must be in good working condition with adequate pads. Brakes that are worn out or oil soaked will not pass.
- Brake lines must be in good shape without leaks and ran in a safe route from cylinders to brakes.
- Master and slave cylinders must be in good shape without leaks. Adequate braking resistance at the pedal is required.

Bumpers

RCAA considers the front bumper to be the foremost part of the frame excluding push bars, stingers, etc. The rear bumper is considered to be the rearmost part of the vehicle.

- Bumpers must connect the right and left frame rail.

Cooling

RCAA considers the following to be part of the cooling system. Radiators, hoses, engine ports, heater hoses, coolant product,

The following are approved for competition:

- Air Cooling
- Water-cooled systems
- Radiator must be covered so that, in the event of a break in the radiator, spectators, spotters and drivers are protected from the coolant spill.
- Radiators must be securely mounted
- The use of Ethylene Glycol is not permitted.
- Hoses and connections must be in good condition without cracks, all connection have a tightening device.
- Top mount (roof mount) radiators are not approved.
- Radiators must have an overflow bottle connected to the radiator by an overflow tube.
- Overflow bottles must not be beverage containers.

Drive shafts

RCAA consider the drive shaft to be the working link between the transfer case and the axles.

The following are approved for competition:

- All mechanical drive shafts.

Electrical

RCAA includes all wires, lights, batteries, and any other item controlled by or conducting electricity as its function to be part of the electrical system.

The following are approved for competition:

- Batteries that are in good shape with adequate mounting to keep the battery in place in the event of a roll.
- All batteries must be of a non-spill type.
- Mounting must be a clamp type mount that “cages” the battery in position. Foot type clamp mounting is not approved.
- Wires must be in a condition and position that is safe. Exposed or burned wires are not approved.

Engine

RCAA considers the system designed to create torque and horsepower, including blocks, heads, valve cover, oil pan and all internals of such system to be classed in the engine.

The following are approved for competition:

- All engine sizes and configurations.
- Engine must be free of leaks of fluids that pose a fire threat.
- Vent tubes must be attached to a fluid containment container

Fuel System

The fuel system includes all components and connections used to store, deliver, and mix fuel and air on the vehicle. This includes the type of fuel used.

The following are approved for competition:

- Carburetors
- Fuel Injection systems that either injects fuel from a throttle body or thru ports.
- Non-vented gas caps (Vented gas caps are not approved)
- Unleaded, leaded, and diesel fuels.
- Fuel additives (not more than 10.0:1 ratio)
- Alcohol is not approved for competition as a main fuel (see above)
- Fuel systems must be sealed with a rollover valve installed in the fuel vent line. Ball valves must be installed on all fuel lines including vent lines. Ball valves must be mounted under the vehicle
- Fuel lines must be ran from the fuel tank or cell to the engine in a safe route.
- Fuel lines must be free of leaks or cracks in hoses.
- Throttle assemblies must be in good order and work smoothly. Throttles that do not move smoothly throughout their entire range of motion will not pass.

- Hand throttles are approved
- Hand throttles must automatically return to the non-throttle position.

Frame

RCAA considers the frame of a vehicle to be the two rails supporting the mounting of the body and drivetrain as the main frame, and connecting cross members as the sub frame.

The following are approved for competition:

- Boxed or semi boxed Mainframe material made of a magnetic steel.
- Tubing mainframe material no less than .75" outside diameter magnetic steel.

Vehicle Numbers

Vehicle number must be displayed on the right, left and front on the vehicle.

- Numbers are to be no less than six 6" tall.
- Numbers must be white on a black background.

Roll bars/Cages

RCAA considers the cage as the safety bars surrounding the driver. Designed to protect the occupant in the event of a rollover.

The following are approved for competition:

- Six (6) point mounting cages covering the driver.
- Round steel D.O.M tubing, 1.5" O.D with 0.120" is compulsory for the basic roll cage and must be RCAA approved. Aluminum and /or soft metals are not permitted. Roll bar construction must be welded. Roll cages made of other material or in other wall thickness/diameters must be done through an RCAA approved builder and have a certification and serial number on file with the RCAA. Contact the RCAA at 801-446-5337 for information.
- Connection positions of the roll cage must tie in to the frame of the vehicle at six points. Four of these points must be surrounding the driver.
- The front most position must be no farther toward the rear of the vehicle than fifteen (15) inches behind the throttle and brake pedals.
- The Cage must have a total of four spreader bars between the front main bar and rear main bar.
- Gussets must be welded at the four corners of the "halo" around the driver in both a horizontal and vertical position. Tubing or plate steel is compulsory for the construction of gussets.
- Magnetic, flattened expanded sheet metal, 1/8" sheet metal or 1/8" aluminum must cover 50% of the cage perimeter on the driver side for two seat vehicles and 100% of the outer cage perimeter on single seat vehicles immediately over the driver seat and be welded or bolted to the four tubes surrounding the driver. Additional tubing may be used in place of plate steel or aluminum.
- RCAA recommends a spreader bar to be mounted under the dash area to the right and left side of the front main bar.
- If doors are not ran, a bar running from the middle hoop at approximately shoulder height to the front hoop at approximately shin height must be ran. This can be a bolt in piece.
- Any variance of the above rules must be approved by and RCAA official inspector.
- A "periscope bar" may be no longer than 12" above the "halo" bar. This may be used as an attaching position for tow straps.

Seating

The following are approved for competition:

- All seats having padded rib protectors and seat leg extensions on the left and the right side.
- Adequately padded headrest acceptable to RCAA officials.
- Seats must be mounted to the roll cage. Mounting to the body is not permitted.
- Two RCAA approved seats required.
- An approved four-point harness is mandatory and must be worn at all times while on an obstacle.

Steering

RCAA considers steering to be all components designed to turn the vehicle wheels to the left or right of the vehicle centerline.

The following are approved for competition:

- Hydraulic front steering is permitted.
- Rear steering is permitted.
- Brake Steering (See Brakes)
- All steering components, u-joint, fitting must be in good working order as determined by an RCAA official.
- Hydraulic steering fluids must not leak.
- Hydraulic lines must be steel braided lines in good shape. All lines must be run in a safe route.
- Vent tubes must be attached to a fluid containment container

Stickers

RCAA recognizes that teams need sponsors to stay competitive and that some sponsors of teams are direct competitors of RCAA sponsors and that RCAA sponsors make these events possible. Because of this RCAA requires all competitors to run small appreciation stickers of the companies that make these events possible. Stickers are to be run on the sides or top of the body or wheel wells. Teams may run their own stickers without restriction in size. Stickers may not use profanity or be of a crude nature.

Suspension

The following are approved for competition:

- Reactive suspension systems
- Manual controlled suspension systems. These systems may not control individual tires. These systems must control either the entire front axle or the entire rear axle.
- Suspension pivot points, connecting points must be free of cracks and in good physical condition as determined by an RCAA official.

Tires

The following are approved for competition:

- All factory built tires from any manufacturer.
- National Championship: All tires must be DOT approved and available through normal channels of tire distribution to all competitors. No specially produced competition only tires are permitted.
- Regional Championship: All automotive based tires. No agricultural tires are approved.
- Tire size limits is 40" measured using a measuring device and measuring actual diameter on the wheels that will be used for competition with the vehicle on the ground measuring in a horizontal plane at the tire center line.
- Vehicles must have no less than four (4) and no more than six (6) independent tires.
- Tires are to be the only source of forward, side, or back movement of the vehicle. Any device used to move the vehicle in these directions other than the tires is considered a tool or winch and points will be assessed accordingly.
- Tires must be inflated with either air, CO₂, or water. No other substance is approved.

Transfer Case

The transfer cases transfer power to the front axle and rear axle of a vehicle.

The following are approved for competition:

- All transfer cases.
- Vent tubes must be attached to a fluid containment container

Transmission

The following are approved for competition:

- All automatic or manually operated transmissions.
- Vent tubes must be attached to a fluid containment container

Weight

Weight is the total vehicle weight.

- The vehicle can weigh no less than 2400 pounds.
- The vehicle must weigh a minimum of 2400 without the driver while competing. Weight reduction based on damage while competing may be approved by an RCAA marshal.

Wheels

The following are approved for competition:

- All steel and aluminum wheels
- Bead lock wheels with locks on both the inner and out side of the wheel or any combination thereof.
- Wheels and bead locks must not interfere with the proper operation of brakes.
- Wheels must be mounted onto the axle with a minimum of five lug studs in proper condition.

Winches

The following are approved for competition: Winches are required in working order at all times while competing.

- All professionally built and sold electric, hydraulic, and power take off winches with a minimum capacity of 6000 pounds on the first wrap of cable.
- Winches must use rope type cable substitute or cable with a minimum burst strength of nine thousand five hundred (9500) pounds (subject to change to rope only)
- Rope must be in acceptable condition with minimal fraying or kinks.
- Clevis hook must be rated at ten thousand (10000) pounds.
- Winch must be mounted using all factory-mounting positions either on the bottom or front and back.
- All vehicles must carry an approved winch bag. These are available through the R.C.A.A or other sources. Coats and blankets are not approved

Additional Requirements

Two Fire extinguishers securely mounted to the roll cage on both the right and left hand side of the vehicle. Mounting position must be on the vertical main bar immediately behind the driver on the left side and between the seats. Trucks must be mounted on the vertical main bar behind the cab behind the driver and passenger seat.. Extinguishers must be easily removed without the use of tools. Extinguishers must be full.

Super Modified

Axles

RCAA considers axles to be the link between wheels on both front and rear ends. This application begins at the end of the drive shaft and ends at the flange for wheels. It does not include brake assemblies.

The following are approved for competition:

- All axle widths, Live Axles, Solid axles, Independent, Military style drop in axles.
- Gear reduction may be prior to the axles or after the axles or a combination of both.
- Manual wheelbase changes are allowed.
- Differentials must have some form of 100% locking abilities.
- Vent tubes must be attached to a fluid containment container

Body

RCAA considers the body to be the vehicles outer layer and includes the floor, sides, rear, hood, fender, grill, and firewall.

The following are approved for competition:

Hood-

- Must cover the top of the engine completely. Hood scoops and breather holes are acceptable.
- Fully open space cannot exist beyond twelve (12) inches in diameter without a baffle.

Fenders-

- Not required.

Tub/Cab

- General condition must be in good shape without excessive rust that would warrant concern for safety.
- Firewalls are required for fire safety and must be a minimum of forty-thousandths aluminum 20-gauge metal, or 3/16" lexan. Plexiglass is not permitted.
- Firewalls must be ran from the left outer panel to the right outer panel and separate fully, the driver from the engine compartment.

Brakes

RCAA considers the brakes to be the source of control for slowing and stopping wheels.

The following are approved for competition:

- Mechanically operated brakes.
- Hydraulic assisted brakes
- The brake pedal on the floor must operate all brakes. Competitors may use secondary brakes for operating individual brakes on the vehicle.
- Transmission brakes must be approved by an RCAA official inspector.
- Emergency brake hydraulic locks or mechanical locks are approved.
- Emergency brake gears (mechanical type) must be in good shape and not worn to a point of possibly disengaging while under a load.
- Brakes must be in good working condition with adequate pads. Brakes that are worn out or oil soaked will not pass.
- Brake lines must be in good shape without leaks and ran in a safe route from cylinders to brakes.
- Master and slave cylinders must be in good shape without leaks. Adequate braking resistance at the pedal is required.

Bumpers

RCAA considers the front bumper to be the foremost part of the frame excluding push bars, stingers, etc. The rear bumper is considered to be the rearmost part of the vehicle.

- Bumpers must connect the right and left frame rail.

Cooling

RCAA considers the following to be part of the cooling system. Radiators, hoses, engine ports, heater hoses, coolant product,

The following are approved for competition:

- Air Cooling
- Water-cooled systems
- Radiator must be covered so that, in the event of a break in the radiator, spectators, spotters and drivers are protected from the coolant spill.
- Radiators must be securely mounted
- The use of Ethylene Glycol is not permitted.
- Hoses and connections must be in good condition without cracks, all connection have a tightening device.
- Top mount (roof mount) radiators are not approved.
- Radiators must have an overflow bottle connected to the radiator by an overflow tube.
- Overflow bottles must not be beverage containers.

Drive shafts

RCAA consider the drive shaft to be the working link between the transfer case and the axles.

The following are approved for competition:

- All mechanical drive shafts.

Electrical

RCAA includes all wires, lights, batteries, and any other item controlled by or conducting electricity as its function to be part of the electrical system.

The following are approved for competition:

- Batteries that are in good shape with adequate mounting to keep the battery in place in the event of a roll. All batteries must be of a non-spill type.
- Mounting must be a clamp type mount that “cages” the battery in position. Foot type clamp mounting is not approved.
- Wires must be in a condition and position that is safe. Exposed or burned wires are not approved.

Engine

RCAA considers the system designed to create torque and horsepower, including blocks, heads, valve cover, oil pan and all internals of such system to be classed in the engine.

The following are approved for competition:

- All engine sizes and configurations.
- Engine must be free of leaks of fluids that pose a fire threat.
- Vent tubes must be attached to a fluid containment container

Fuel System

The fuel system includes all components and connections used to store, deliver, and mix fuel and air on the vehicle. This includes the type of fuel used.

The following are approved for competition:

- Carburetors
- Fuel Injection systems that either inject fuel from a throttle body or through ports.
- Non-vented gas caps (Vented gas caps are not approved)
- Unleaded, leaded, and diesel fuels.
- Fuel additives (not more than 10.0:1 ratio)
- Alcohol is not approved for competition as a main fuel (see above)
- Fuel systems must be sealed with a rollover valve installed in the fuel vent line. Ball valves must be installed on all fuel lines including vent lines. Ball valves must be mounted under the vehicle
- Fuel lines must be ran from the fuel tank or cell to the engine in a safe route.
- Fuel lines must be free of leaks or cracks in hoses.
- Throttle assemblies must be in good order and work smoothly. Throttles that do not move smoothly throughout their entire range of motion will not pass.
- Hand throttles are approved
- Hand throttles must automatically return to the non-throttle position. Strategic

Frame

RCAA considers the frame of a vehicle to be the two rails supporting the mounting of the body and drivetrain as the main frame, and connecting cross members as the sub frame.

The following are approved for competition:

- Boxed or semi boxed Mainframe material made of a magnetic steel.
- Tubing mainframe material no less than .75” outside diameter magnetic steel.

Vehicle Numbers

Vehicle number must be displayed on the right, left and front on the vehicle.

- Numbers are to be no less than six 6” tall.
- Numbers must be black on a white background.

Roll bars/Cages

RCAA considers the cage as the safety bars surrounding the driver. Designed to protect the occupant in the event of a rollover.

The following are approved for competition:

- Six (6) point mounting cages covering the driver.

- Round steel D.O.M tubing, 1.5” O.D with 0.120” is compulsory for the basic roll cage and must be RCAA approved. Aluminum and /or soft metals are not permitted. Roll bar construction must be welded. Roll cages made of other material or in other wall thickness/diameters must be done through an RCAA approved builder and have a certification and serial number on file with the RCAA. Contact the RCAA at 801-446-5337 for information.
- Connection positions of the roll cage must tie in to the frame of the vehicle at six points. Four of these points must be surrounding the driver.
- The front most position must be no farther toward the rear of the vehicle than fifteen (15) inches behind the throttle and brake pedals.
- The Cage must have a total of four spreader bars between the front main bar and rear main bar.
- Gussets must be welded at the four corners of the “halo” around the driver in both a horizontal and vertical position. Tubing or plate steel is compulsory for the construction of gussets.
- Magnetic, flattened expanded sheet metal, 1/8” sheet metal or 1/8” aluminum must cover 50% of the cage perimeter on the driver side for two seat vehicles and 100% of the outer cage perimeter on single seat vehicles immediately over the driver seat and be welded or bolted to the four tubes surrounding the driver. Additional tubing may be used in place of plate steel or aluminum.
- RCAA recommends a spreader bar to be mounted under the dash area to the right and left side of the front main bar.
- If doors are not ran, a bar running from the middle hoop at approximately shoulder height to the front hoop at approximately shin height must be ran. This can be a bolt in piece.
- Any variance of the above rules must be approved by and RCAA official inspector.
- A “periscope bar” may be no longer than 12” above the “halo” bar. This may be used as an attaching position for tow straps.

Seating

The following are approved for competition:

- All seats having padded rib protectors and seat leg extensions on the left and the right side.
- Adequately padded headrest acceptable to RCAA officials.
- Seats must be mounted to the roll cage. Mounting to the body is not permitted.
- An approved four point harness is mandatory and must be worn at all times while on an obstacle.

Steering

RCAA considers steering to be all components designed to turn the vehicle wheels to the left of right of the vehicle centerline.

The following are approved for competition:

- Hydraulic front steering is permitted.
- Rear steering is permitted.
- Brake Steering (See Brakes)
- All steering components, u-joint, fitting must be in good working order as determined by an RCAA official.
- Hydraulic steering fluids must not leak.
- Hydraulic lines must be steel braided line in good shape. All lines must be run in a safe route.
- Vent tubes must be attached to a fluid containment container

Stickers

RCAA recognizes that teams need sponsors to stay competitive and that some sponsors of teams are direct competitors of RCAA sponsors and that RCAA sponsors make these events possible. Because of this RCAA requires all competitors to run small appreciation stickers of the companies that make these events possible. Stickers are to be run on the sides or top of the body or wheel wells. Teams may run their own stickers without restriction in size. Stickers may not use profanity or be of a crude nature.

Suspension

The following are approved for competition:

- Reactive suspension systems
- Manual controlled suspension systems.

- Suspension pivot points, connecting points must be free of cracks and in good physical condition as determined by an RCAA official.

Tires

The following are approved for competition:

- All factory built tires from any manufacturer.
- National Championship: All tire must be DOT approved and available through normal channels of tire distribution to all competitors. No specially produced competition only tires are permitted.
- Regional Championship: All automotive based tires. No agricultural tires are approved.
- Tire size limits is 40" measured using a measuring device and measuring actual diameter on the wheels that will be used for competition with the vehicle on the ground measuring in a horizontal plane at the tire center line. (This value may be adjusted for regional competition.)
- Vehicles must have no less than four (4) and no more than eight (8) independent tires.
- Tires are to be the only source of forward, side, or back movement of the vehicle. Any device used to move the vehicle in these directions other than the tires is considered a tool or winch and points will be assessed accordingly.
- Tires must be inflated with either air, CO₂, or water. No other substance is approved.

Transfer Case

The transfer cases transfers power to the front axle and rear axle of a vehicle.

The following are approved for competition:

- All transfer cases.
- Vent tubes must be attached to a fluid containment container

Transmission

The following are approved for competition:

- All automatic or manually operated transmissions.
- Vent tubes must be attached to a fluid containment container

Weight

Weight is the total vehicle weight.

- The vehicle can weigh no less than 2200 pounds.
- -The vehicle must weigh a minimum of 2200 without the driver while competing. Weight reduction based on damage while competing may be approved by an RCAA marshal.

Wheels

The following are approved for competition:

- All steel and aluminum wheels
- Bead lock wheels with locks on both the inner and out side of the wheel or any combination thereof.
- Wheels and bead locks must not interfere with the proper operation of brakes.
- Wheels must be mounted onto the axle with a minimum of five lug studs in proper condition.

Winches

The following are approved for competition: Winches are required in working order at all times while competing.

- All professionally built and sold electric, hydraulic, and power take off winches with a minimum capacity of 6000 pounds on the first wrap of cable.
- Winches must use rope type cable substitute or cable with a minimum burst strength of nine thousand five hundred (9500) pounds (subject to change to rope only)
- Rope must be in acceptable condition with minimal fraying or kinks.
- Clevis hook must be rated at ten thousand (10000) pounds.
- Winch must be mounted using all factory-mounting positions either on the bottom or front and back.
- All vehicles must carry an approved winch bag. These are available through the R.C.A.A or other sources.

- Coats and blankets are not approved

Additional Requirements

Two Fire extinguishers securely mounted to the roll cage on both the right and left hand side of the vehicle. Mounting position must be on the vertical main bar immediately behind the driver on the left side and between the seats. Trucks must be mounted on the vertical main bar behind the cab behind the driver and passenger seat.. Extinguishers must be easily removed without the use of tools. Extinguishers must be full.