*****2025 Rule Changes are highlighted in Yellow - Mod Stock Class Rules have been removed and Electric powered vehicle rules added. Pro Mod Tire and bumper changes, Course flow changes. Bonus points Spt B and Spt C***

The Rule Book is for all: competitors, judges, and spectators. Pages 3-12 are valuable for Spectators. Read through page 21 if you are planning to judge or compete; if you are building a competition rig, please find the appropriate section of build specs in the Table of Contents on Page 3.

World Extreme Rock Crawling Championship Series

Rule Book

Effective 1/1/2025

IMPORTANT NOTICE

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 spouse 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 Good Events, LLC doing business as W.E.Rock Events, (W.E. Rock) World Extreme Rock Crawling Championship Series, the competitor for himself/herself, his/her personal representatives, heirs, and next of kin, hereby releases the entity, and their respective officers, directors, promoters, sponsors, employees, agents and volunteers ("releasees") of all liability to the competitor, heirs and assigns, 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 injury or death to the individual or others.

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.

W.E.ROCK has spent several years compiling information using the input from builders, outside resources, professional engineers, and W.E.ROCK competitors. These rules are in line with the majority of competition vehicles now competing in W.E.ROCK International events. It is not W.E.ROCK's intent to eliminate anyone from competing, but just the opposite. It is our goal to continually uphold the highest standards of safety possible for our competitors and spectators. Changes are always met with resistance; however, without them, progress will never happen. Please keep the big picture in mind--safety!

Each competitor acknowledges and represents the following while competing:

● That he or she has read the foregoing release and waiver of liability and indemnity agreement.

● That he or she does at all times, while riding in a vehicle participating in an event, wear his or her respective safety harness and helmet.

● That the owner/driver certifies that he or she has inspected this vehicle and that the same certifies it to be in proper mechanical condition for participation in rockcrawling competition.

● That the owner/driver has informed himself/herself about the event, either by prior participation or by investigation into the sport and especially W.E.Rock events.

● That the driver or any other person(s) in a vehicle participating in any W.E.Rock event, may choose to bypass any obstacle and, therefore, assumes all risk and liability, as indicated above.

Please Be Aware:

Although safety is everyone's primary concern and certainly the highest priority of W.E.Rock, the ultimate responsibility rests on the competitors.

Competitors can, at any time, choose to bypass any obstacle or area where they feel uncomfortable or unsafe driving.

World Extreme Rock Crawling

Championship Series

Rule Book

Effective 1/1/2025

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Section 1: Points Scoring System

1.1: Course Time

Every team will have ten (10) minutes to complete each course unless otherwise specified in the driver's meeting. Time will start once any part of the team enters the course. Time will stop once any two tires cross the imaginary line between the finish gates. Vehicles may not straddle any finish gates to stop time. If the vehicle hits a finish gate while attempting to exit, time will be continued and the cone will be counted until two tires cross the imaginary line between the finish gates. Once the time has expired, the vehicle must be removed from the course using the quickest allowable route possible.

Time management is the sole responsibility of the team, assigned judges for W.E. ROCK will keep time for scoring, but knowing the time remaining on course is the responsibility of the team.

1.2: Reversal

One point is issued for a purposeful reversal by the competitor. A purposeful reversal or back up is considered when a driver puts the vehicle in reverse and backs up or pushes in the clutch and rolls back, etc. A reversal is not counted when the obstacle pushes the vehicle back, unless an advantage is gained during the process. A reverse in an attempt to save a rollover is considered an infraction and will receive reversal points. A reversal penalty is also counted if a team uses a “reverse burn”.

If a team starts the course in reverse, they will immediately receive one (1) point for backing and everything will be judged as normal. If the team completes the course in reverse (never making a change in direction), the point for reverse will be removed from the score.

1.3: Gates

Each obstacle is marked with cones, and other “hazards” like marked bushes and trees, ribbon, banners, pennants, flagging, flags, etc. A ten (10) point penalty or disqualification points will be issued for every cone or hazard touched.

All hazards will be appropriately marked and will be discussed in the driver’s meeting. If the spotter, winch rope, pull strap, vehicle contents, etc. touch any cone or hazard, it will count the same as if the vehicle had touched it. A cone does not have to fall to be counted; it only needs to be touched at any point, including its base. Cones that fall due to exhaust, wind, or unstable rocks will not count as a touched gate unless a vehicle’s tire or axle crosses the original “intended” location of that cone. Once a cone is touched it is considered disqualified from that obstacle for the team who touched it and may not be counted for a second contact, though its original “intended” location remains for consideration of an “Out of Bounds” penalty.

Rock stacking to allow a “bridge” over a cone will not be allowed. This includes building high points on each side of the cone with the intent to put the cone in a valley. While attempting to clear a gate, a vehicle may not “float” a tire or axle over a cone. Any tire not touching the ground, or axle, crossing the vertical plane of the “intended” location of a cone, even without touching the cone, will be penalized the same as if the cone had been touched.

Competitors must stay within the roped-off areas that define the course. Materials used to define a course may not be driven over, driven under, or be touched by the vehicle. 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 people so that safe passage may be made. The judge has the right to disallow any diversion off course.

The course is designed to be driven between the cones. All gates must be taken in the order intended by the designer. To ease navigation, all intermediate gates will be marked, in order, from start to finish. **While on course, understanding course flow is solely the responsibility of the team**. If, while attempting a gate, the vehicle is so far off-line that at least three tires do not place/travel on or between the set of cones or gate. The judge will make the team aware that progression did not occur. The team has the option of re-trying the gate. The vehicle must completely re-attempt the gate. The driver may back up through the gate or exit and enter the course from the same side as long as no other gates are driven through or touched. ~~The vehicle may only break the plane of the gate being attempted in the correct~~

~~order. Any part of the vehicle breaking the plane of any other gate will be a 10 point penalty. Any team completing a gate (receiving progression) out of order will receive 40 points for the course.~~

If a vehicle gets 3 tires through an incorrect gate or out of course flow the team will receive a Ten (10) point penalty. In the case of a course flow infraction, the team will be penalized when progression occurs on the next gate. The team will have the opportunity to enter course flow from the same location the vehicle exited.

Due to the nature of natural courses, courses may change between competitors' runs; if this occurs, W.E.Rock staff will determine where the location of the cone should be to maintain fairness among competitors.

1.4: Bonus Gates

In an effort to reward those who wish to attempt higher difficulty lines, Bonus Gates may be included throughout the course. Bonus gates are optional and will be marked or colored differently than a standard gate. Bonus gates are worth a -10 (negative ten) bonus points plus progression points, if in lieu of a regular progression gate; Bonus gates may also be a stand-alone bonus and are counted after the rearmost portion of the vehicle clears the imaginary line defining that gate. If bonus cones are hit, they count as any other cone hit, but bonus credit is still earned if the gate is then cleared. A team that attempts and fails a bonus gate may choose to return to the original departure point of the normal course to attempt to complete the course within the remaining time. All points accrued during the bonus attempt and return to the normal course will be counted. ~~*Bonus gate credit will NOT be earned if the entire course is not completed*~~. Bonus gate credits will be awarded once time stops such as DNF, Time Out, Out of Bounds, or completion of course

1.5: Pointed Out/Timed Out

The maximum allowed points for a course are 40 (forty). Points accrue throughout the ten minutes on course, and if the total reaches 40 prior to completion of the course, the team is "pointed out". The team receives 40 points on their score sheet (less any progression points) and moves to the next obstacle using the quickest allowable route possible.

If the time allowed on an obstacle runs out, the team is "timed out". The team receives 40 points on their score sheet (less any progression points) and moves to the next obstacle as listed above.

Any "progression" or "bonus" points earned are NOT counted against the penalty points accrued while the clock is running. They are kept separate and added after the course is completed, timed out, or pointed out.

1.6: Progress Points

To reward teams for progress through a course, “progression points” are given for each intermediate gate completed. Point values correspond with each gate, -1 for the first gate; -2 for the second gate; -3, etc. for each intermediate gate completed, and are counted after the rearmost portion of the vehicle clears the imaginary line defining that gate. If an intermediate gate cone is hit, it counts as any other cone, but progress points are still earned if the gate is then cleared. The Start and Finish gates will not be credited as progress gates.

Progression points will be credited once cleared ~~and are the only credit points retained if the course is not completed~~. Progress points will be given for every set of gates cleared, including Bonus Gates that are in lieu of standard gates. These points are not taken off a team’s score until they have successfully completed the obstacle, timed out, or pointed out; so they are not related to “pointing out”.

1.7: Rear Steer

Rear steering is only available to be used by the Unlimited Class or Sportsman A class vehicles. No penalty points will be issued for use of rear steer in the Unlimited Class**. ~~If a spotter strap is used on a course, and rear steer is engaged, a 5 point penalty will be assessed.~~** A 10 (ten) point penalty will be issued for use of rear steer in the **Sportsman** class, the penalty will be issued only once per course, if used on that course. Any rear-steer car in Sportsman class, must compete in Sportsman A.

1.8: Rock Stacking

Any rock, log, or other item found naturally in the course vicinity may be used to help a team’s progress through a course. A team may go outside their current course’s boundary to locate rocks and wood, but they may not take any from a different course. To ensure fairness, teams are not allowed to “pre-set” rocks and wood and will be called for sportsmanship and a penalty of 10 points if they are found to be moving anything prior to the start of their time. It is acceptable to “look” for these items, however, they may not be moved unless the team is on the clock. Any “outside” help in rock stacking will also be questioned for sportsmanship.

One of the largest risks to spotters is stacking rocks near a moving vehicle. To promote safety, no rocks or wood are allowed to be stacked within 3 (three) feet of a moving tire. If this rule is violated, a penalty of 10 points will be assessed for each occurrence. A common practice of having a spotter stand on a rock during a “burn” to keep the rock in place is also very risky; therefore, this too will carry a penalty of 10 points.

When a team has completed a course, they will be given an optional 3 (three) minutes to “unstack” the course. They may only move rocks that they stacked during their attempt on the course. Any rocks moved must be returned as close as possible to their original location. Any team seen intentionally moving rocks to a more difficult location than their original placement, or destroying/breaking rocks or logs, will be penalized 10 points for unsportsmanlike activity. Furthermore, if a team rolls a rock downhill and cannot move it back uphill, they must leave that rock in place. Rolling it further downhill will bring sportsmanship into question.

1.9: Spotter Manipulation

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 tip-over. Vehicles must be in park or gear with emergency brake set, prior to righting. The driver and spotter may try to upright a vehicle, however any outside assistance will result in a point out.

Spotters touching a rolled vehicle while it is moving will NOT receive a warning, they will be assessed a penalty of 10 points.

Spotters may not touch the vehicle to aid movement unless the vehicle is in park with the emergency brake set and the engine is turned off. A 10 point penalty will be assessed if violated, without any warnings.

1.10: Spotter Strap

If a team uses the spotter strap, a 5 point penalty is assessed, with the exception of the Unlimited class. The spotter rope use in the Unlimited class should be considered an either/or scenario between using rear steer and the spotter rope. An Unlimited vehicle with rear steer, will be assessed a 5 point penalty for the use of rear steer and the use of a spotter strap while on the same course.

Straps used by the spotter must be long enough so that the spotter is never closer than 15 feet from the vehicle in any direction, and 20 feet from the front of the vehicle, any pull from the front of the vehicle that will result in the spotter being less than 20’ away from the vehicle (including reverse pulls), the spotter must start further away than 20’. An approved extension is recommended for the spotter rope. Once the vehicle and spotter reach the 20’ minimum distance the spotter must drop the spotter strap. If the spotter becomes less than 20’ away while still holding the rope and while the vehicle is moving, a 10 point penalty will be issued for safety violation. Front pull is defined as any pull made by the spotter in which the spotter will or may end up positioned between oncoming tires, whether those tires are located in the front or rear of the vehicle.

The spotter rope must be marked at 15 feet with any of the following: a knot, several layers of duct tape or paint in a different color as the rope. Violations of this safe distance carry a penalty of 10 points after a warning is given. If a team does not heed the judges warning, a team may be disqualified on that course.

Attachment to the vehicle of a spotter strap must be done in an approved fashion (self locking caribiner designed for side loading, hook and cage strap, etc.) Approved hand holds along the rope include knots or T or ski handle type grip(s). No loops for grip are approved, no “wrapping” of the rope around hand, arm, body or foreign object (tree, rock, etc.) for leverage is allowed and will carry a 10 point penalty.

Spotter Ropes must be approved at Tech. Non-Approved Rope: Rope with cuts and abrasions of over 25% of the rope width deep.

1.11: Tools

A vehicle must pass through an obstacle under its' own power. Therefore, tools may not be used. Tools are considered as 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.

Tools, when used for repair of the vehicle, are not subject to a penalty, they may be carried in by the spotter at the start of a course or may be carried inside the vehicle. Tool Boxes and other supplies for repair must be securely fastened to the vehicle and must contain some sort of positive locking mechanism. Vehicles with tools must enter through Tech with the tools in the vehicle so safety inspectors may check for proper standards.

At no time may a team leave the course to gather tools while on the clock. Teams may only use tools that came in with the vehicle or were carried in by the spotter.

Rocks may not be carried in a vehicle. No brooms or wheel-chocks allowed.

Leverage: Leverage points on a vehicle are approved if they are a permanent part of the vehicle. Example: A welded push-bar would be allowed. A quick-detach push-bar that can be added and removed throughout the event would not.

1.12: Winches

Winching is assessed a thirty point (30) point penalty if used, per course.

Winching is considered when a team hooks a winch rope to any anchor and begins to load the rope. A rope is considered loaded as soon as the cable has tension on it. Each team may winch as many times as needed to complete the obstacle under the original winching penalty of 30 points as long as the winch point does not change or the rope is not removed and then reattached.

Exemption: A team may use the vehicles winch to perform a self recovery after a rollover and for the sole purpose of self recovery and continuation on the course. The winch can only be used for the act of recovery and may not be used to further progression on course. The team will receive a twenty (20) point penalty if the winch is used for self recovery. The team must use the winch with either an existing winch anchor point found naturally on the course or a self recovery anchor carried by the team and attached to the vehicle securely before attempting the course.

There are occasions where a judge or marshal may allow a rope 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 rope.

1.13: 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 unless they have pointed out. However, the team must immediately move the vehicle off the course when they have timed out. Repairs and work done while on the obstacle clock must be performed entirely by the driver and spotter. Outside help coming onto the course will immediately "time out" the team and the vehicle must be moved.

No competitor has to start breakdown time until they are going to miss their next start. Teams may work on their vehicles without being on breakdown time up until three minutes after being called to start their next obstacle. Before that time arrives, the team needs to either have repairs finished or declare the start of breakdown time. After the three-minute start leeway has passed, the judge will not allow breakdown time to begin.

To start breakdown time, the team's scorecard must be signed by the judge of the course where that team is about to miss their start. The judge will mark the competitor's scorecard with the time of day and sign it. Once breakdown time has begun, a team has only 45 minutes to complete the repairs and return to the SAME course judge to sign back in. The Judge will then mark down the time, sign it, and mark down the number of the vehicle the competitor is following. If it only takes 25 minutes to do the repairs and you have signed in and out properly, you will retain an additional 20 minutes for possible use later that day. If a team surpasses the allowed 45 minutes of breakdown time ~~even by 1 minute, they will be disqualified for that day and receive forty (40) points for each remaining obstacle.~~ they may rejoin their flight in the same running order. Any Missed courses will be scored as 40 points.

Teams who move to an obstacle out of order and without a judge's signature will be disqualified for that day and receive forty (40) points for each remaining obstacle. If a team breaks down and is last in their flight or has nobody behind them, the team then has 45 minutes or however much time is left of their break down time to complete the repair and line up for the next course**. It is the sole responsibility of the team to manage their breakdown time.**

1.14: Fluid Control

Teams must adhere to all fluid related rules.(See Section 3.3) Excessive loss (meaning more than a few drops) of environmentally damaging fluids or fluids in general will result in a penalty of ten (10) points or are subject to vehicle disqualification after an initial warning. This includes water in tires. If this occurs, the judge or team should call a marshal for review and clarification.

1.15: Outside Assistance

Any spectator or team member in the course area providing assistance by electronic devices or any other method to the spotter or driver while the team is on course could cause the competing team to be penalized or disqualified from that course, as well as possibly causing their own expulsion from the event.

In addition, no team may use any tools placed near, inside or outside the course except as described in Section 1.11: Tools. Determination and investigation of outside assistance will be made by the Marshal. Determination factors will include, but are not limited to: Whether the person or persons are with the team in question, whether the person or persons are affiliated with another team, or whether the person or persons are spectators only and have no affiliation.

Sportsmanship is the responsibility of everyone, be sure to warn your friends and teammates of the image they portray. Cheating will not be tolerated.

Team members consist of the Driver, Spotter, and vehicle; therefore only the driver and spotter can communicate through electronic communication devices while on the course.

1.16: Out Of Bounds

Each course has an out of bounds line determined by stringer banner and pylons that help delineate the call for out of bounds infractions. Due to the competitive nature of rock crawling and the materials used for delineation, a process will be used to determine the out of bounds infraction. The process follows as:

A) Once the competitor starts to touch the out of bounds, the driver or spotter will be given a warning of the infraction, the competitor has the option of backing up or positioning the vehicle without incurring the out of bounds infraction, (all other infractions such as reversals and gates will be penalized).

B) If the competitor moves further towards out of bounds, the team will then receive 10 points and another warning of disqualification.

C) If the competitor moves further towards out of bounds, the team will be disqualified.

If the vehicle makes a sudden movement into the out of bounds area, the team will receive no warning and receive a 10 point penalty. If the vehicle moves suddenly out of bounds, a disqualification will be issued if 50% of the vehicle is located out of bounds. In the event of a rollover that places the vehicle out of bounds, if two or more tires have broken the plane, it will result in an automatic disqualification on that course.

1.17: Fire Suits

All fire suits must have a safety rating. Lowest safety rating available is permitted for driver fire suits. Fire suits may be 1 or 2 piece suits. Every Pro Class Driver must wear a fire suit while on course time.

If a team starts on course time while the driver does not have a fire suit on, a ten (10) point penalty will be added to the team's score for each course the driver does not wear a fire suit.

From time to time, the event Marshal may change the Fire Suit rule, any rule change will be confirmed at the driver's meeting.

1.18: Seat Belts

All pro classes are required to have a 5-point harness system. Sportsman Classes must have a minimum of a 4-point harness. Belt tightness is to be determined by the driver at his/her own discretion as the driver assumes all risks involved with belt tightness. Every driver must wear and lock all available belts in their safety harness system (arms through shoulder harnesses and legs through lap harnesses). A penalty of ten (10) points will be assessed if the driver is in the vehicle and starts movement on course without the required safety belts system locked, if not corrected disqualification may occur.

1.19: Window Nets

All Pro teams are required to have window nets installed properly (approved during safety inspection prior to the event, or by the event Marshal during the event) and in use while on course time.

See Class rules for proper installation and the amount of nets needed for each vehicle. If a team starts a course with their Window Net not properly in use, a warning will first be given. After the initial warning, a 10 point penalty will be given, per course, if not corrected immediately. The points will be added on while course time is running, so that it will be related to a point out.

1.20: Pro Class Rules for Shootout

The top 3 teams or the number of paid positions plus 1, will qualify to run the shootout.
Teams will begin at the Start gate with (10) Ten Minutes on the clock. The first (4) Four gates will be run in standard format until completion of the (4^{th}) Fourth gate. All penalties will be tabulated as normal. After the (4^{th}) Fourth gate, there will be a number of bonus gates called Bonusland. The teams will have the opportunity to attempt bonus gates forwards and backwards in any order. Once the team has completed two bonus gates successfully they will have to "check-in" those points before continuing on course. (See check-in gates below) The only penalty points in bonusland are in the instance the Check-In gates are touched by the vehicle. No other penalties will be applied after progression of the 4^{th} gate. Standard cones have no penalty in bonusland. If a bonus cone is hit there will be no bonus points awarded and the gate cannot be attempted in either direction until the cone is reset by a judge after the vehicle returns to the check-in gates. After a team completes a gate they may not simply reverse through the same gate for points. The vehicle must change direction before attempting the gate in the opposite direction. This may result in a 360 degree loop before reversing through the same gate if the team wishes to reverse through the gate. The team may attempt as many gates as possible during the remainder of the original (10) Ten Minute time limit.

Check-In gates:

During the Bonusland format teams will "check-in" or bank their bonus points by breaking the plane of the Check-In gates located on the course. Bonuses earned on course do not count until they are checked-in. Teams can drive through the Check-in gates in either direction or break the plane and reverse back onto course to accumulate more bonuses.

There are 3 functions to the Check-In gates.

*Check in -10 bonus points * Check in -20 bonus points * Reset cones that have been hit

Section 2: Team Rules

2.1: Changing Vehicles

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

2.2: Drivers

Drivers from one vehicle may spot for another competitor, but not the same registered vehicle with a different driver. Drivers are allowed to drive a different registered vehicle in a different class.

2.3: Driver Order

The order of competitors is based on a random-draw system for the first day of competition.

The second day order of competition is reversed from the first day.

Any competitor who chooses to tech late will be placed at the beginning of a flight/group for both days, to avoid this, teams may call to confirm their participation prior to the end of registration.

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 out of order to a different obstacle number.

From day one of a competition, Driver order or start positions on courses may change and can be done so by the event Marshal.

All changes will be confirmed at the Driver's Meeting.

2.4: Driver's Meeting

All competitors ***should*** attend the Driver's Meeting. This will be held at a designated location one-hour before the start of the event on the first day of competition. Any additional driver's meetings to be held will be posted. Specific information is given at these meetings regarding the day's event, in addition posting of running order and staging assignments are also provided. Failure to attend is not an excuse for infractions, rule changes or not knowing information given at the Driver's Meeting. **W.E.ROCK retains the right to change any or all rules found in this rulebook, including penalties, any time prior to the start of an event.**

2.5: Tech and Registration

2.5.1: Teams, who fail to make tech/check-in during the normal posted hours, may tech and check-in late, but will be charged a late fee of $30.00 without prior registration and approval. Any team not making tech during the normal posted hours will run at the beginning of a flight/group on both days, unless prior approval and notification has been given.

2.5.2: Tech and Registration is specific to the event and will be posted on www.werocklive.com on the event specific page; drivers are responsible for knowing this information.

2.5.3: Late Vehicle Tech will begin two hours prior to the start of the event. Teams must be registered no later than one hour prior to the start of the event.

2.5.4: The Team's first tech of each season will consist of a full and complete vehicle tech for safety and class rules.

2.5.5: Any teams found with Illegal vehicle standards must be completely legal by the team's second event of their season. If they are found to not be legal by their second event, by Class Infractions (Non-Safety), the team will move up in class until legal. Safety Infractions will not be permitted at the team's second event and the team will not be allowed to compete.

2.6: Spotter Straps

Straps and carabiners used by spotters for pulling must be approved by the event marshal. Straps with "hand- loops" are not approved if they could possibly "trap" the hand when taut. Spotters may not wrap the strap around any part of their body.

W.E.Rock recommends, as a minimum standard, all ropes used as spotter rope to be 3/8" Kermantle Rope (Core-sheath, static line). Leader ropes or built in leaders on the strap must be used.

W.E.Rock requires attachment devices (ie. carabiners) to be made from magnetic steel or aluminum and have a tensile strength of 22 kn or 4796 lbs (1 Kilo-newton {kn}=218 lbs).

Carabiners may not be directly attached to the vehicle at any time, (This prevents carabiners from being side loaded that could cause breakage).

2.7: Sportsmanship

During all W.E.Rock events, proper sportsmanship is required. If a competitor or team member (including crew) promotes unsportsmanlike conduct, is rude or abrasive to officials, local authorities, volunteers, other teams or spectators; destroys property, or displays drunken or disrespectful behavior, they and/or the entire team may be disqualified from the current event and/or future events.

The event Marshal or a W.E.ROCK Staffer may penalize a team for unsportsmanlike conduct at any point in the competition, including prior to registration and after the awards ceremony, an unsportsmanlike call will receive no less than a 10 point penalty, extreme conditions may require penalties beyond 10 points and will be enforced at the discretion of the event Marshal.

Coaching of judges is unacceptable and is considered unsportsmanlike and is grounds for disqualification. The goal of W.E.Rock is to promote a respectable sport and promote partnering companies in a professional light. Therefore, unsportsmanlike conduct will not be tolerated.

2.8: Protests of Judge's Ruling

W.E.Rock Judges have the final say in all cases, except for a misunderstanding of a rule. W.E.Rock recognizes that there will be, from time to time, errors in a Judge's call. W.E.Rock Marshals can overturn a Judge's decision in cases of misunderstanding of rules or in extraordinary cases. This is true whether the points are given to a team or taken away.

A Marshal ***will not*** over-turn a Judge's "judgment call." ie. a call on a cone, out of bounds, reverse, bushes, etc. If a call comes into question during a team's attempt on a course, the competing team should call a time-out immediately. The course Judge will stop the time and the problem will be addressed through the Judge or Marshal.

One team protesting another team does NOT stop the clock. The protesting team must wait for the completion of the obstacle before issuing a protest. One team may NOT protest another on "judgment calls", as described above, unless there is a ***clear misunderstanding*** of the rules.

If the protest cannot be handled "on course" to everyone's satisfaction, a formal protest may be issued in writing within 30 minutes of the completion of the day's competition. If a team is considering issuing a protest, please give the courtesy of notifying the W.E.Rock Marshal as soon as possible, so scoring officials can be made aware of potential changes. All formal protests must be submitted to the head W.E.Rock Marshal and a meeting of all W.E.Rock Marshals still present will be held to determine the outcome. The decision of the Marshals is final.

Treatment of Judges, event officials, and volunteers falls under sportsmanship.

Scorecards will be reviewed for accuracy at the end of every day's events; if your scorecard is marked incorrectly, it is your responsibility to be sure it is corrected.

All Scorecards will be checked by the scorekeeper before the shootout or before awards, if a team's scorecard is not available for review, that team will not be considered for the shootout or for awards.

2.9: Protests for Vehicle

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 event registration 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 a W.E.Rock Marshal.

W.E.Rock will then review the vehicle in question. Any costs for such a review (mechanics' costs, etc.) are the responsibility of the competitor making the challenge.

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

At W.E.Rock events, only items that would be considered a competitive advantage or gross safety violation will be considered for disqualification.

If W.E.Rock reviews the vehicle and finds all in order pertaining to the challenge, the challenging team will be assessed 30 (thirty) penalty points.

2.10: 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 be immediately discontinued. Failure to comply can result in an immediate point out and the team will be asked to move to the next obstacle.

Section 3: Miscellaneous Safety Rules

3.1: Seat Belts

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. Seat belts in the

competition vehicle ***must*** be a five (5)- point harness with ***all*** straps (including Shoulder Straps) secured and locked down.

Exemption: Sportsman Class may have a 4 point harness, this is a minimum requirement.

3.2: Winch cable

Only winch rope or synthetic cable is allowed. Steel cable is not allowed.

3.4: Loose Articles

All items must be securely fastened to prevent injury in the event of a rollover. Coolers, miscellaneous parts, and other extraneous items are to be removed from the vehicle prior to each obstacle.

3.5: Fire Extinguisher

Two “completely full” fire extinguishers must be mounted on the roll cage on both the right and left hand side of the driver. Extinguishers should not be mounted close enough to fuel cells or potential fire hazard areas that would make it dangerous to obtain.

3.6: Helmets

All competitors riding in a vehicle must wear a DOT/Snell approved helmet while competing. Spotters must wear head protection (soft material not permitted) while on an obstacle. ***Helmets that continue to below the ear are Highly Recommended for Drivers.***

3.7: Medical Conditions

Teams must advise a W.E.Rock marshal of any medical conditions that they may have that could affect their ability to perform or become a concern during competition. (Seizures, diabetes etc…)

3.8: Handles

Handles are recommended on the roll cage. 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.

3.9: First Aid

First aid kits containing medical tape, gauze, band-aids, and wrap are recommended in each vehicle.

3.10: Injury Report

Any competitor (driver or spotter) must report any injury to a W.E.Rock Marshal prior to leaving the premises (if such competitor is able to make such report.)

3.11: Drugs/Alcohol

Drugs and alcohol will not be permitted in any degree during competition. Competitors who are found to be consuming 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 season is possible.

3.12: Emergencies

During an event, a team member may be replaced due to an emergency, with approval from a W.E.Rock Marshal. The vehicle must remain the same through an entire event.

Section 4: W.E.ROCK Purse

Purse will consist of 100% of paid entry fees for pro classes; Mod Stock, Pro Mod and Unlimited. The Sportsman purse will consist of 50% of paid entry fees. Purse payouts will be to the top 5 competitors in a class, as long as there are more than 17 competitors in a class. If there are less than 17 competitors in a class, W.E.ROCK will payout 1 spot for every 4 entered.

Example:

1 – 4..... 1 paid
5 – 8 ..... 2 paid
9 – 12 … 3 paid
13 – 16 .. 4 paid
17 – Up .. 5 paid

Purses will be paid based on the following percentages:

Number of competitors in class Payout

1 – 4	1 paid = 1st:100%
5 – 8	2 paid = 1st:70%, 2nd:30%
9 – 12	3 paid = 1st:62%, 2nd:30%, 3rd:8%
13 – 16	4 paid = 1st:56%, 2nd:28%, 3rd:10%, 4th:6%
17 – Up	5 paid = 1st:55%, 2nd:24.5%, 3rd:10%, 4th:7%, 5th:3.5%

Series Purse

100% of Series Fees collected will be awarded under the same guidelines as a regular season event, if no series fees are collected, none will be paid.

Backdrop Banner

National Points Series Champions in the Pro Classes will be featured on the next season's award banner.

Section 5: Series Points

Competitors may sign up for season points in one of two ways

Sign up as a “Driver” and the series points follow that driver regardless of the spotter or vehicle.

Sign up as a “Team” and the series points will follow the team that participated on the first obstacle of the season. At each event, at least two of the three “original” elements must be in place. For example: the two team members must be the original if the vehicle changes. If one of the team members changes, the other team member and the vehicle must be the original.

During an event, a team member may be replaced due to an emergency, with approval from a W.E.ROCK Marshal. The vehicle must remain the same through an entire event. (see section 3.12)

The event placing will earn series points and will be assigned as follows:

1st place 100 points
2nd place 99 points
3rd place 98 points
4th place 97 points
5th place and below - all placing will drop by 1 point per position.

At the end of the season, the total series points will be added to determine the series placing. At least two events must be completed in order to be considered for a season award.

National Points Series

Teams eligible for the National Points Series Championship must run a minimum of four (4) events and have earned a podium finish during the season at least once. Only points from the best four events, sans Grand Nationals, will be used to determine the National Series Points Champions. Teams eligible for the National Points Series Championship do not need to complete an entire Regional series to qualify for National Points Series, but may compete at any WE Rock event, sans Grand Nationals to qualify. Series tie breaker rules will apply.

Section 6: Tie Breakers

For events:

If, at the end of a competition, two or more of the top 6 competitors have the same “event point total”, a tiebreaker will be used to determine finishing position.

The first tie breaker will be the Shootout course score, best score on the shootout course will determine the winner of the event.

If the score is still tied after the shootout, the combined scores from A-1 (day 1) and B-1 (day 2) will determine the winner.

If the event is only a 1 day event, then Obstacle A1 will be declared as a tiebreaker and the best score from that obstacle (including progress and bonus points) will determine the highest finisher.

If a tie is declared on that obstacle, then the next obstacle in succession (A2) will be used, and so on, until the tie is broken.

If inclement weather puts one competitor at a disadvantage, then they must be aware that “luck of the draw” sometimes does play a role.

If all “tied” competitors did not have an opportunity to run the chosen obstacle, the next obstacle that all parties had the opportunity to run would be the tie breaker.

For series

If, after the last event in a series, two or more or the top 3 competitors have the same “series point total”, a tiebreaker will be used to determine finishing position.

The competitor with the most first place finishes will be the first tie-breaker.

The second tie-breaker will be the finisher with the highest placing in the final event.

Section 7: Media

7.1.1: All media going on course, whether photographer or videographer must be approved by W.E. Rock management

7.1.2: Outside media outlets will be given priority

7.1.3: Media vests of a bright color must be worn at all times when on course

7.1.4: All media must sign an appropriate waiver before going on course

7.1.5: No alcohol may be consumed prior to or during the event by a member of the media

7.1.6: Photographers working primarily for a team may apply for media credentials but will approved on an individual basis by W.E. Rock management

7.1.7: All media are expected to share photos with W.E. Rock; photo credit will be given.

Section 8 {REMOVED}

CLASS RULES

Section 9: PRO-MOD CLASS

W.E.ROCK’s goal for the Pro Modified Class is to create a venue where all vehicles can be simply recognized through Manufacturer Association to bring Spectator Appeal.

This class is based on the idea of classic competition between manufacturers. Example:

NASCAR’s Ford vs. Chevy vs. Dodge. Individual make and model identity will draw the audience to this class, therefore competition vehicles will have a minimum standard for resemblance of a certain production or recognizable specialty vehicle.

9.1: Axles

W.E.ROCK's Goal for the axle rule is to limit the use of axles to any production OEM axle that is automotive based, to further the goal of simple recognition. Therefore many styles of axles will be permitted for use.

W.E.Rock 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 axle guidelines for competition:

9.1.1: All axle widths, Live Axles, Solid axles, Independent, Military style drop in axles are acceptable. Portals are acceptable.

9.1.2: No manual change of axle wheelbase is allowed.

9.1.3: Differentials must have some form of 100% locking abilities.

9.1.4: Vent tubes must be attached to a fluid containment container or contain 2 complete loops so that fluid discharge is kept at a minimum.

9.1.5: Gear reduction may be prior to the axles or after the axles or a combination of both.

The Following 3 sections will encompass the same goal.

9.2: Body

W.E.ROCK's goal for the Body Rule in the Pro Modified Class is to create a venue where all vehicles can be simply recognized through Manufacturer Association to bring Spectator Appeal.

This class is based on the idea of classic competition between manufacturers. Example:

NASCAR's Ford vs. Chevy vs. Dodge. Individual make and model identity will draw the audience to this class, therefore competition vehicles will have a minimum standard for resemblance of a certain production or recognizable specialty vehicle.

W.E.Rock considers the body to be the vehicles outer layer and includes the floor,

sides/door/doorskins, rear, hood, fender, grill, and firewall.

The following are body guidelines for competition:

9.2.1: Body panels must be made from the following materials: Steel, Fiberglass, LEXAN, Plastic, Aluminum, & Carbon Fiber. A W.E.ROCK official must clear any other materials.

9.2.2: All Pro Modified vehicles must have an outer front and rear fender that resemble a 3 dimensional OEM Body panel of proclaimed vehicle.

9.2.3: All Body panels must look like an OEM body panel of proclaimed vehicle.

9.2.4: Vehicles using an OEM or direct-replacement tub or cab may run without doors or doorskins. Any such vehicles will be held to strict adherence to cage rules regarding door bars.

9.2.5: Vehicles using non-OEM bodies must be equipped with doors or doorskins resembling the OEM doors of the claimed vehicle. Any body structure narrowed from OEM will be regarded as non-OEM even if the OEM tub/cab sides are retained, and required to run doorskins for occupant safety.

Example: http://i37.photobucket.com/albums/e79/Dirtriot/3d_panel_rule_explination-1.jpg

9.2.6: Teams that wish to not use OEM designed type bodies run a "Themed" vehicle; they must contain 3 dimensional panels for the entire length of the vehicle and still adhere to all other Pro Modified Rules.

9.2.7: As of the 2015 season, until further notice, the body panel rule is suspended, flat body panels are acceptable.

9.3: Hood/Grill

9.3.1: Must cover the top of the engine completely. Hood scoops and breather holes are acceptable.

9.3.2: Fully open space cannot exist beyond twelve (12) inches in diameter without a baffle.

9.3.3: All hood panels must look like an OEM hood of proclaimed vehicle.

9.3.4: All vehicles must maintain an OEM Type grill; Logo may be removed due to advertising and sponsor conflicts.

9.3.5: Head Lights, after-market lights, Off-Road Lights with same OEM-Orientation or graphics resembling headlights of proclaimed vehicle must be in place.

9.3.6: The design and look of the hood while on the vehicle must give the appearance of the OEM vehicle that is proclaimed, WEROCK will be the judge of all hood designs and make the final ruling as to whether or not a hood is acceptable.

9.4: Fenders

9.4.1: Front fenders are required on all Pro Mod class vehicles, fenders must be of a solid material and resemble in some way the OEM design of the same vehicle and the hood is proclaimed to be from.

9.4.2: All Limited vehicles must have an outer front that resemble a 3 dimensional

OEM Body panel of proclaimed vehicle. Example:

http://i37.photobucket.com/albums/e79/Dirtriot/bedrail_explanation.jpg

9.4.3: The design and look of the fenders while on the vehicle to give the appearance of the OEM vehicle that is proclaimed, WEROCK will be the judge of all fender designs and make the final ruling as to whether or not a fender is acceptable.

9.5: Tub/Cab

9.5.1: General condition must be in good shape without excessive rust or corrosion that would warrant concern for safety.

9.5.2: Firewalls are required for fire safety and must be a minimum of forty-thousandths aluminum, 20-gauge metal, or 1/8" lexan. Plexiglas is not permitted.

9.5.3: Firewalls must be ran from the left outer panel to the right outer panel and separate fully, the driver from the engine compartment or must "Doghouse" the engine compartment, see this link for examples: http://i37.photobucket.com/albums/e79/Dirtriot/overhead_rules_firewall.jpg

9.5.4: Exposed transmission components must be covered with a safety shield to protect occupants from possible exposure to transmission fluids in the event of transmission case fractures or unforeseen fluid spills.

9.5.5: All Body panels must look like an OEM body panel of proclaimed vehicle.

9.5.6: All vehicles must have a floorboard running from under the control pedals, back to the forward edge of the seat. The floorboard must be a minimum of forty-thousandths aluminum, 20- gauge metal, 20-gauge expanded metal, or 1/8" lexan. Plexiglas is not permitted.

9.5.7: Vehicle must have two seats that sit side by side on the same horizontal plane from front to front and back to back mounting points.

9.5.8: Boat-siding and Dove-tailing is allowed

9.5.9: Vehicle must be 48 inches wide at the door bar junction to the B-Pillar.

This link will also pull this photo for visual example:
http://i37.photobucket.com/albums/e79/Dirtriot/48inch_rule_explination.jpg

9.6: Brakes

W.E.Rock considers the brakes to be the source of control for slowing and stopping wheels.

The following are the brake guidelines for competition:

9.6.1: Mechanically operated brakes are approved.

9.6.2: Hydraulic assisted brakes are approved.

9.6.3: The brake pedal on the floor must operate all brakes.

9.6.4: Competitors may use secondary brakes for operating individual brakes on the vehicle.

9.6.5: A W.E.Rock official inspector must approve transmission or pinion brakes if they are the primary source of braking.

9.6.6: Emergency brake hydraulic locks or mechanical locks are approved for emergency brakes.

9.6.7: Emergency brake gears (mechanical type) must be in good shape and not worn to a point of possible disengagement while under a load.

9.6.8: Brakes must be in good working condition with adequate pads. Brakes that are worn out or oil soaked will not pass.

9.6.9: Brake lines must be in good shape without leaks and ran in a safe route from cylinders to brakes.

9.6.10: Master and slave cylinders must be in good shape without leaks. Adequate braking resistance at the pedal is required.

9.7: Bumpers

W.E.ROCK's goal for the Bumper Rule is to keep any stinger, push bar, or bumper separated from the mainframe rails so that the Bumper is not confused with any frame height/width rule.

W.E.Rock considers the front bumper to be the foremost part of the chassis including push bars, stingers, etc. The rear bumper is considered to be the rearmost part of the vehicle.

9.7.1: Bumpers must connect the right and left frame rail.

9.7.2: A stinger is considered to be an up-swept bumper of an approximately "A" shape. It includes the top, sides, and any bends transitioning from its sides into other chassis components.

9.7.3: A bumper is considered to be the front most cross member at the end of the frame, including the actual lateral member, and any bends transitioning from that lateral member into other chassis components.

9.7.4: If no bumper is present, the ends of the frame rails will be considered the bumper.

9.7.5: The bumper may be detachable so teams may bounce from series to series. Bumpers may not be considered "Consumable" by having a thinner tubing wall construction of .095.

9.7.6: Any bumpers or bends for bumpers attached to the frame rails, whether round or square tube, must sit with 1.5" true measurement from the point that is no shorter than 15 ½ inches forward of the centerline of the front axles or further forward. All bumpers and frame rails must be made of magnetic construction.

9.8: Cooling

W.E.Rock considers the following to be part of the cooling system: Radiators, hoses, engine ports, heater hoses, and coolant products.

The following are the cooling guidelines for competition:

9.8.1: Air Cooling is approved.

9.8.2: Water-cooled systems are approved.

9.8.3: Radiators must be securely mounted and covered so that, in the event of a break in the Coolant Lines, spectators, spotters and drivers are protected from the coolant spill.

9.8.4: Hoses and connections must be in good condition without cracks, all connections must have a tightening device that utilizes a mechanical means to secure the connection.

9.8.5: Top mount (roof mount) radiators are not approved.

9.8.6: Radiators must have an OEM or adequate sized aftermarket overflow bottle, securely mounted, and 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.

9.8.7: The use of Ethylene Glycol is not permitted.

9.8.8: Vent tubes must be attached to an adequate sized fluid containment container.

9.9: Drive shafts

W.E.Rock consider the drive shaft to be the working link between the transfer case and the axles.

The following are approved for competition:

9.9.1: All mechanical drive shafts

9.9.2: All Driveline u-joints must be covered so that broken parts may not hit any occupants.

9.10: Electrical

W.E.Rock considers all wires, lights, batteries, and any other items controlled by or conducting electricity as its function to be part of the electrical system.

The following are electrical guidelines for competition:

9.10.1: Batteries must be in good shape with adequate mounting to keep the battery in place in the event of a roll.

9.10.2: All batteries must be of a non-spill type.

9.10.3: Mounting must be a clamp type mount that “cages” the battery in position. Foot-type clamp mounting is not approved.

9.10.4: A “Master” kill switch that shuts down every electrical system is required to be mounted on the dash, clearly labeled and in proper working order. This switch must kill the engine when switched to the “off” position.

9.10.5: Wires must be in a condition and position that is safe. Exposed or burned wires are not approved.

9.11: Engine/Motor

W.E.ROCK’s goal for the Engine/Motor Rule is to encompass the OEM look and design so that fans can associate with the characteristics and handling of the Limited Class vehicles.

W.E.Rock 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 as part of the engine.

W.E.ROCK Defines Automotive Based as: Having originated, or been designed for use, in a vehicle having not less than four wheels, intended primarily (more than 50% of engine production) for highway use in a passenger- or cargo- carrying motor vehicle. This does not include engines designed primarily for off-highway equipment or recreational use, aviation, marine, or stationary applications.

The following are the engine guidelines for competition:

9.11.1: All engines of automotive based sizes and configurations are approved.

9.11.2: Engine must be free of leaks.

9.11.3: Engine mounts must be in good condition and of adequate material to support the engine.

9.11.4: Vent tubes must be attached to a fluid containment container.

9.11.5: Dipstick caps must be sealed.

9.11.6: The rearmost portion of the engine must be placed forward of the front of the driver passenger seats.

9.11.7: Electric Motors are not permitted.

9.12: 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 fuel system guidelines for competition:

9.12.1: Carburetors are approved.

9.12.2: Fuel Injection systems that either inject fuel from a throttle body or through ports is approved.

9.12.3: Non-vented gas caps are mandatory (Vented gas caps are not approved).

9.12.4: Unleaded, leaded, propane, natural gas, and diesel fuels are approved.

9.12.5: Alcohol is not approved for competition as a main fuel (see above).

9.12.6: Fuel systems must be sealed with a rollover valve installed in the fuel vent line.

9.12.7: Ball valves must be installed on all fuel lines including vent lines. Ball valves must be mounted so that they can be easily accessible.

9.12.8: Fuel lines must be ran from the fuel tank or cell to the engine in a safe route**.**

9.12.9: Fuel lines must be free of leaks or cracks in hoses.

9.12.10: 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.

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

9.12.12: Vent tubes must be attached to a fluid containment container.

9.12.13: Fuel Cells of rubber (Bladder Type encased in a steel or aluminum case) and plastic construction will be the only approved fuel cells allowed.

9.13: Frame/Chassis

~~W.E.ROCK's goal for the Frame/Chassis Rule is to create a venue where all vehicles can be simply recognized through Manufacturer Association to bring Spectator Appeal. This class is based on the idea of classic competition between manufacturers. Example: NASCAR's Ford vs. Chevy vs. Dodge. Individual make and model identity will draw the audience to this class, therefore competition vehicles will have a minimum standard for resemblance of a certain production or recognizable specialty vehicle.~~

W.E.Rock considers the frame of a vehicle to be the two rails supporting the mounting of the body and drive train as the main frame, and connecting cross members as the sub frame.

The following are frame guidelines for competition:

9.13.1: Boxed, semi boxed, round tube, or unibody mainframe material must be made of a magnetic steel.

9.13.1: Boxed, semi boxed, round tube, or unibody mainframe material must be made of a magnetic steel.

9.13.2: Frame must be similar to that of a ladder type or perimeter type mainframe consisting of two rails and attendant crossmembers. Tubes considered the “Frame Rails” must sit under the top of the tire throughout the entire length of the frame. Length of the frame is determined in the rule ~~5.13.3~~ 9.13.3 This includes any diversions located in the main frame rails.

~~9.13.3: In a round tube chassis, the frame rails will be considered the lowest tube running the entire length from 15 ½ inches forward of the centerline of the front axles to the centerline of the rear axle.~~

9.13.3: The frame rails will be considered the lowest tube running the entire length not to be shorter than the centerline of the front axle to the centerline of the rear axle.

~~9.13.4: Frame Rails cannot be any shorter than 15 ½ inches forward of the centerline of the front axle. This can be achieved thru the use of a bolt on frame extension fabricated of like design elements so that it can withstand impact. Flimsy sacrificial extensions used to enhance approach angle on first impact are not permitted. The intent of this revision is to allow for better approach angles outside of WEROCK competition thru the removal of the frame extension portion.~~

~~9.13.5: Frame Rails cannot be any shorter than the centerline of the rear axle.~~

9.13.6: ~~Between the front of the front tire and the centerline of the rear axle,~~ No point of the right and left frame rail may be any closer to each other than 16" measured horizontally.

9.13.7: Notching the frame for link arm mounting is legal. Notches are not required to meet rule

9.13.8. Notching for any other reason in the main frame is not permitted.

9.13.9: The frame rails must run within four (4) inches of vertical alignment in relation to each other for the entire length of these specifications. This includes Diversions.

9.13.10: The bottom of the frame rail may not be any higher than the top of the tire**.**

9.13.11: Frame material must be at least 1.5" external dimension (diameter or side measurement) magnetic steel, with a minimum of 0.120" wall thickness. Aluminum and other soft materials are not permitted. A W.E.Rock official must approve frames made of other material or in other wall thickness/diameters.

~~9.13.12: If round tubing is used for the main frame rails, it must extend from at least the front edge of the front tires, to the centerline of the rear axle, excluding any stingers, bumpers, etc (see 5.7 Bumpers). The bottom of the tube may not be higher than the top of the tire at any point along this path from front to rear.~~

~~9.13.13: Any bumpers or bends for bumpers attached to the frame rails, whether round or square tube, must sit with 1.5” true measurement from the point that is no shorter than 15 ½ inches forward of the~~

~~centerline of the front axles or further forward. All bumpers and frame rails must be made of magnetic construction.~~

9.14: Vehicle Numbers

Vehicle numbers must be displayed on the right, and left sides of the vehicle.

9.14.1: Numbers are to be no less than six 6" tall.

9.14.2: All numbers are to be the responsibility of the teams. If a team has a number preference, they must ask for that number to be assigned them, before the season starts. Numbers will be issued on a first come first served basis. If a number has been pre-assigned to another competitor, the second competitor will have to change their number. To request a number, the team must be signed up for the W.E.Rock Series.

9.14.3: W.E.Rock recommends a detachable number plate be used.

9.15: Roll bars/Cages

W.E.ROCK's Goal for the Roll Bars/Cages rule is to ensure safety while still incorporating W.E.ROCK's central goal of vehicle recognition.

W.E.Rock considers the cage as the safety bars surrounding the driver. Cages must be designed to protect the occupant in the event of a rollover.

The following are roll bar/cage guidelines for competition:

9.15.1: Six (6) point mounting cages covering the driver are required**.**

9.15.2: OEM bars are approved for a portion of the roll cage.

9.15.3: Handles are required on the interior portion of the roll-cage or vehicle.

9.15.4: Round steel tubing (D.O.M Preferred) 1.5" O.D with 0.120" wall is compulsory for the basic roll cage. Aluminum and/or soft metals are not permitted. Roll bar construction must be welded. A W.E.Rock official must approve roll cages made of other material or in other wall thickness/diameters.

9.15.5: Connection positions of the roll cage must tie in to the frame of the vehicle; Body mounts are considered a tie in point.

9.15.6: The front-most position must be no farther toward the rear of the vehicle than fifteen (15) inches behind the throttle and brake pedals.

9.15.7: The Cage must have a space no wider than 24" above the driver's head, and at least 1 spreader bar between the front main bar and rear main bar are required.

9.15.8: Cage Top must be at least 34" wide at the top portion of the B-Pillar and be of symmetrical shape from driver's side to passenger side.

9.15.9: Gussets must be welded in the four corners of the "halo". Gussets may be tubing or plate steel and may not be any smaller than 1"x1"

9.15.10: A minimum of.040 magnetic expanded or flat sheet metal, or 1/8" aluminum, must cover the area immediately over the driver seat and be welded or bolted to the roll cage. Steel tubing must surround the roof panel.

9.15.11: W.E.Rock recommends a spreader bar to be mounted under the dash area to connect the right and left "A" pillars.

9.15.12: If doors are not ran, a bar running from the "B" pillar, at approximately shoulder height, to the "A" pillar, at approximately shin height, must be ran. This can be a bolt in piece.

9.15.13:. A periscope bar is not allowed.

9.15.14: Cage must be at least 48 inches wide at the door bar junction to the B-Pillar. Any add on tubing to meet the 48-inch wide rule may not be moveable so that it hits an object and slides forward or backward with ease. It may be a quick detachable system so that you may remove it for other events.

9.15.15: All cages must be equipped with at least one side shear diagonal brace from the top of the cage (roof level) at the B-Pillar to the opposite side of the chassis at the Door Bar Junction of the B-Pillar or the Rocker Junction of the B-Pillar.

9.15.16: Cage height must be a minimum of 3 inches from the entire helmet of the driver

9.16: Seating

W.E.ROCK's Goal for the Seating rule is to ensure safety while still incorporating W.E.ROCK's central goal of vehicle recognition. Suspension Seats are considered seats that absorb impact through springs, a Sling Design, or Foam that helps inhibit spinal compression.

The following are seating guidelines for competition:

9.16.1: All seats must have padded rib protectors and lower torso containment on the left and the right side.

9.16.2: Adequately padded headrests or neck supports acceptable to W.E.Rock official inspectors are required.

9.16.3: Seats must be mounted to the roll cage. Mounting to the body is not permitted.

9.16.4: An approved Five-point harness is mandatory and must be worn at all times while on an obstacle.

9.16.5: Vehicle must have two seats that sit side by side on the same horizontal plane from front to front and back to back mounting points.

9.16.6: Seats must maintain the same size characteristics in comparision to each other. Ex. vehicles must use 2 adult sized seats or two kids sized seats, depending on the size and safety of the driver

9.16.7: Comparing the left seat and right seat, seat corners must be mounted on the same horizontal plane, front to front and back to back

9.16.8: Left seat bottom must maintain the same degree of tilt at the main seat rails, front to back and side to side, as the right seat bottom.

9.17: Steering

W.E.ROCK's goal for the Steering Rule is to create a fairness to the addition of older style vehicle.

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

The following are steering guidelines for competition:

9.17.1: Full Mechanical steering is permitted.

9.17.2: Hydraulic Assisted steering is permitted. Full Hydraulic Steering is permitted.

9.17.3: Rear Steering is not permitted. If the vehicle is equipped with rear steer, then teams must completely lock out the rear steer with welded on tabs and bolted fastening devices so that there is no question of rear steering movement.

9.17.4: Brake Steering (See Brakes).

9.17.5: All steering components, u-joints, and fittings must be in good working order as determined by a W.E.Rock official.

9.17.6: Hydraulic steering fluids must not leak.

9.17.7: Hydraulic lines must be steel braided or commercially sold hydraulic line in good shape. All lines must be run in a safe route.

9.17.8: Vent tubes must be attached to a fluid containment container.

9.17.9: All steering lines, which run through the cockpit, must be entirely shielded to protect all occupants.

9.18: Stickers

9.18.1: Teams may run their own stickers without restriction in size.

9.18.2: Stickers may not use profanity or be of a crude nature.

9.18.3: Contingency stickers must be run in accordance with the contingency sponsor's program. Contingency stickers are the responsibility of the competitor. W.E.Rock will attempt to have every contingency sticker available. W.E.Rock will ask that all competitors run the event sponsor stickers, though not required.

9.19: Suspension

The following are suspension guidelines for competition:

9.19.1: Reactive suspension systems are approved,

9.19.2: Manual suspension controls (ie. Forced Hydraulics) are approved in this class but may not control individual tires. This may only be used to aid movement of the entire front or rear axle as a whole.

9.19.3: Suspension pivot points, connecting points must be free of cracks and in good physical condition as determined by a W.E.Rock official.

9.20: Tires

The following are tire guidelines for competition:

9.20.1: All factory built tires from any manufacturer.

9.20.2: All automotive-based tires. No agricultural tires are approved.

9.20.3: 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.

~~9.20.4: Maximum tire size of 40" is allowed by sidewall reading. (Changed from 37" in 2017 edition)~~

9.20.5: Tire Studs, screws, or anything added to the tire to aid traction will not be permitted

9.21: Transfer Case

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

The following are transfer case guidelines for competition:

9.21.1: All transfer cases are approved.

9.21.2: Vent tubes must be attached to a fluid containment container.

9.21.3: All Driveline u-joints must be covered so that broken parts may not hit any occupants.

9.22: Transmission

The following are transmission guidelines for competition:

9.22.1: All automatic or manually operated transmissions are approved.

9.22.2: Vent tubes must be attached to a fluid containment container.

9.22.3: Exposed transmission components must be covered with a safety shield to protect occupants from possible exposure to transmission fluids in the event of transmission case fractures or unforeseen fluid spills. The Transmission cover must be a minimum of .040 aluminum, 20-gauge metal, 20-gauge expanded metal, or 3/16" lexan. Plexiglas is not permitted.

9.23: Weight

Weight is the total vehicle weight.

9.23.1: The vehicle must weigh a minimum of 2500 without the driver while competing. A W.E.Rock marshal may approve weight reduction based on damage while competing

9.23.2: Use of environmentally damaging compounds, fluids, etc. is not permitted for weight in the tires. This includes Lead. Determination of this rule will be left to occurrences; therefore penalties will be issued once the tire has torn, broken, etc. and the environmentally damaging compounds or Fluids have been released.

9.24: Wheels

The following are wheel guidelines for competition:

9.24.1: All steel and aluminum wheels are approved.

9.24.2: Bead lock wheels with locks on both the inner and outer side of the wheel or any combination thereof are approved.

9.24.3: Wheels and bead locks must not interfere with the proper operation of brakes.

9.24.4: Wheels must be mounted onto the axle with a minimum of four lug studs.

9.24.5: All lug studs must have the proper nuts on them.

9.25: Winches

The following are winch guidelines for competition:

Winches in working order are required on the vehicle at all times while competing.

9.25.1: All professionally built and sold electric, hydraulic, and power take off winches, with a minimum capacity of 5000 pounds on the first wrap of cable, are acceptable.

9.25.2: Winches must use rope type cable substitute with minimum burst strength of nine thousand five hundred (9500) pounds.

9.25.3: Rope must be in acceptable condition with minimal fraying or kinks.

9.25.4: Winch line hooks must be rated at ten thousand (10000) pounds.

9.25.5: Winch must be mounted using all factory-mounting positions on either the bottom or front and back.

9.25.6: Winch line hooks must have an attached strap, at least four inches in length**.**

9.25.7: Cable is not permitted for use as a Winch line.

9.25.8: Winch rope must be available for use during competition, may not be permanently attached to the axle.

9.25.9: Must be in working order and able to use (not tied to the axle) during the event in the case of an emergency or self extraction help

9.26 Window Nets

9.26.1: Safety nets are mandatory on all vehicles competing and must cover the complete open window areas where the driver can reach out. Wing Window areas included if drivers can reach any portion of their body out while fully belted in. This does not include the Windshield gap.

9.26.2: Window Nets should be tight, so that no occupant should push the net out more than 4 inches.

9.26.3: Window nets should cover the entire main window area. Moreover, if a limb can come out in any way, the area must be netted.

9.26.4: Separation between the net and the cage may not be any greater than 2 inches at any point throughout the entirety of the design.

9.26.5: Nets must be secured by a positive locking mechanism and shall be installed so that the driver can release the netting and exit the vehicle unassisted regardless of vehicle position.

9.26.6: Netting must be installed on the inside of the roll cage bars so that it will not be damaged or come off the vehicle in the event of a roll-over or slide on the side.

9.26.7: The net's border or edge and mounting materials must be made of materials that are as strong or stronger than the netting itself.

9.26.8: "Zip tie", plastic fastener, or "Velcro" systems are not permitted. Acceptable methods of tying the nets into the vehicle include: Hose Clamps, metal hooks, and steel rods. Attachment points must be welded tabs, holes drilled in the cage material will NOT be allowed.

9.26.9: Arm restraints will be allowed but must be in addition to the required safety nets.

9.26.10: Vehicles with "Wing Areas" (the area between the A pillar and A pillar support bar) may keep the area open without netting unless reachable by the occupant while harnessed inside of vehicle.

Section 10: Unlimited Class

Unlimited Class Goal:

W.E.Rock's Goal in the Unlimited Class is to create a venue where technology can be pushed with minimal limitations beyond safety. Based solely on the idea of a true fabricators class, this venue will allow the technology of rock crawling to be pushed to new heights. In this age of high technology, the more exotic a vehicle looks, the more the crowds will appreciate them. The appeal of this class will be the many unique designs allowed. The event formatting must be under constant review for this class, so expect that to change as fast as the technology seen on the courses. A true Unlimited class would be no fun without a few limits, so understand that if a technological advantage is found to be too great for the competition industry as a whole to keep up with, some restrictions or handicaps may be used to control domination, which can harm a sport in the long run. Otherwise, the courses and regulations will reflect these advancements and will demonstrate the amazing technical abilities of the most advanced class of rock crawlers ever.

10.1: Axles

W.E.ROCK's Goal in the Unlimited Class is to open up the restrictions and create a true unlimited class where builders and fabricators can push the technology.

10.1.1: All axle widths, Live Axles, Solid axles, Independent, Military style drop in axles, and farm equipment axles are acceptable.

10.1.2: Gear reduction may be prior to the axles or after the axles or a combination of both.

10.1.3: Manual wheelbase changes are allowed.

10.1.4: Differentials must have some form of 100% locking abilities.

10.1.5: Vent tubes must be attached to a fluid containment container or contain 2 complete loops so that fluid discharge is kept at a minimal.

10.2: Body

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

The following are body guidelines for competition:

10.2.1: All vehicles must retain a shield or firewall that separate the occupants from the engine.

10.2.2: Firewalls are required for fire safety and must be a minimum of .040 aluminum, 20-gauge metal, or 1/8" lexan. Plexiglas is not permitted.

10.2.3: Exposed transmission components must be covered with a safety shield to protect occupants from possible exposure to transmission fluids in the event of transmission case fractures or unforeseen fluid spills

10.3: Hood

10.3.1: Must cover the top of the engine completely. Hood scoops and breather holes are acceptable.

10.3.2: Fully open space cannot exist beyond twelve (12) inches in diameter without a baffle.

10.3.3: A Rear Engines Vehicle's hood is considered the material directly behind the occupant's head that separates occupants from the engine entirely.

10.4: Fenders

Not required.

10.5: Tub/Cab

10.5.1: General condition must be in good shape without excessive rust or corrosion that would warrant concern for safety.

10.5.2: Firewalls are required for fire safety and must be a minimum of .040 aluminum, 20-gauge metal, or 1/8" lexan. Plexiglas is not permitted.

10.5.3: Firewalls must be ran from the left outer panel to the right outer panel and separate fully, the driver from the engine compartment or must "Doghouse" the engine compartment, see this link for examples: http://i37.photobucket.com/albums/e79/Dirtriot/overhead_rules_firewall.jpg

10.5.4: Exposed transmission components must be covered with a safety shield to protect occupants from possible exposure to transmission fluids in the event of transmission case fractures or unforeseen fluid spills.

10.5.5: Body panels, though not required are highly recommended.

10.5.6: All vehicles must have a floorboard running from under the control pedals, back to the forward edge of the seat. The floorboard must be a minimum of .040 aluminum, 20- gauge metal, 20-gauge expanded metal, or 1/8" lexan. Plexiglas is not permitted.

10.6: Brakes

W.E.Rock considers the brakes to be the source of control for slowing and stopping wheels. The following are the brake guidelines for competition:

10.6.1: Mechanically operated brakes are approved.

10.6.2: Hydraulic assisted brakes are approved.

10.6.3: The brake pedal on the floor must operate all brakes.

10.6.4: Competitors may use secondary brakes for operating individual brakes on the vehicle.

10.6.5: A W.E.Rock official inspector must approve transmission or pinion brakes if they are the primary source of braking.

10.6.6: Emergency brake hydraulic locks or mechanical locks are approved for emergency brakes.

10.6.7: Emergency brake gears (mechanical type) must be in good shape and not worn to a point of possibly disengagement while under a load.

10.6.8: Brakes must be in good working condition with adequate pads. Brakes that are worn out or oil soaked will not pass.

10.6.9: Brake lines must be in good shape without leaks and ran in a safe route from cylinders to brakes.

10.6.10: Master and slave cylinders must be in good shape without leaks. Adequate braking resistance at the pedal is required.

10.7: Bumpers

W.E.Rock 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.

10.7.1: Bumpers must connect the right and left frame rail.

10.8: Cooling

W.E.Rock considers the following to be part of the cooling system: Radiators, hoses, engine ports, heater hoses, and coolant products.

The following are the cooling guidelines for competition:

10.8.1: Air Cooling is approved.

10.8.2: Water-cooled systems are approved.

10.8.3: Radiators must be securely mounted and covered so that, in the event of a break in the Coolant Lines, spectators, spotters and drivers are protected from the coolant spill.

10.8.4: Hoses and connections must be in good condition without cracks, all connections must have a tightening device that utilizes a mechanical means to secure the connection.

10.8.5: Top mount (roof mount) radiators are not approved.

10.8.6: Radiators must have an OEM or adequate sized aftermarket overflow bottle, securely mounted, and 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.

10.8.7: The use of Ethylene Glycol is not permitted.

10.8.8: Vent tubes must be attached to an adequate sized fluid containment container.

10.9: Drive shafts

W.E.Rock consider the drive shaft to be the working link between the transfer case and the axles. The following are approved for competition:

10.9.1: All mechanical drive shafts are approved.

10.9.2: All Driveline u-joints must be covered so that broken parts may not hit any occupants.

10.10: Electrical

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

The following are electrical guidelines for competition:

10.10.1: Batteries must be in good shape with adequate mounting to keep the battery in place in the event of a roll.

10.10.2: All batteries must be of a non-spill type.

10.10.3: Mounting must be a clamp type mount that “cages” the battery in position. Foot-type clamp mounting is not approved.

10.10.4: A “Master” kill switch that shuts down every electrical system is required to be mounted on the dash, clearly labeled and in proper working order. This switch must kill the engine when switched to the “off” position.

10.10.5: Wires must be in a condition and position that is safe. Exposed or burned wires are not approved.

10.11: Engine/Motor

W.E.Rock 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 as part of the engine. The following the engine guidelines for competition:

10.11.1: All engine/motor sizes and configurations are approved.

10.11.2: Engine/motor must be free of leaks.

10.11.3: Engine/motor mounts must be in good condition and of adequate material to support the engine.

10.11.4: Vent tubes must be attached to a fluid containment container.

10.11.5: Dipstick caps must be sealed.

10.12: 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 fuel system guidelines for competition:

10.12.1: Carburetors are approved.

10.12.2: Fuel Injection systems that either injects fuel from a throttle body or thru ports is approved.

10.12.3: Non-vented gas caps are mandatory (Vented gas caps are not approved).

10.12.4: Unleaded, leaded, propane, natural gas, and diesel fuels are approved.

10.12.5: Alcohol is not approved for competition as a main fuel (see above).

10.12.6: Fuel systems must be sealed with a rollover valve installed in the fuel vent line.

10.12.7: Ball valves must be installed on all fuel lines including vent lines. Ball valves must be mounted so that they can be easily accessible.

10.12.8: Fuel lines must be ran from the fuel tank or cell to the engine in a safe route.

10.12.9: Fuel lines must be free of leaks or cracks in hoses.

10.12.10: 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.

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

10.12.12: Vent tubes must be attached to a fluid containment container.

10.12.13: Fuel Cells of rubber (Bladder Type encased in a steel or aluminum case) and plastic construction will be the only approved fuel cells allowed.

10.13: Frame/Chassis

W.E.Rock considers the frame of a vehicle to be the two rails supporting the mounting of the body and drive train as the main frame, and connecting cross members as the sub frame.

The following are frame guidelines for competition:

10.13.1: Tubing, boxed, or semi boxed mainframe material must be made of a magnetic steel.

10.13.2: Tubing in mainframe material must be no less than .75” outside diameter.

10.14: Vehicle Numbers

Vehicle numbers must be displayed on the right, and left sides of the vehicle.

10.14.1: Numbers are to be no less than six 6” tall.

10.14.2: All numbers are to be the responsibility of the teams. If a team has a number preference, they must ask for that number to be assigned them, before the season starts. Numbers will be issued on a first come first served basis. If a number has been pre-assigned to another competitor, the second competitor will have to change their number. To request a number, the team must be signed up for the W.E.Rock Series.

10.14.3: W.E.Rock recommends a detachable number plate be used.

10.15: Roll bars/Cages

W.E.Rock considers the cage as the safety bars surrounding the driver. Cages must be designed to protect the occupant in the event of a rollover.

The following are roll bar/cage guidelines for competition:

10.15.1: Six (6) point mounting cages covering the driver are required.

10.15.2: OEM bars are approved for a portion of the roll cage.

10.15.3: Handles are required on the interior portion of the roll-cage or vehicle.

10.15.4: Round steel tubing (D.O.M Preferred) 1.5" O.D with 0.095" wall is compulsory for the basic roll cage. Aluminum and/or soft metals are not permitted. Roll bar construction must be welded. A W.E.Rock official must approve roll cages made of other material or in other wall thickness/diameters.

10.15.5: Connection positions of the roll cage must tie in to the frame of the vehicle; Body mounts are considered a tie in point.

10.15.6: The front-most position must be no farther toward the rear of the vehicle than fifteen (15) inches behind the throttle and brake pedals.

10.15.7: The Cage must have a space no wider than 24" above the driver's head, and at least 1 spreader bar between the front main bar and rear main bar are required unless the cage top is 24" wide or less.

10.15.8: Gussets must be welded in the four corners of the "halo". Gussets may be tubing or plate steel.

10.15.9: A minimum of.040 magnetic expanded or flat sheet metal, or 1/8" aluminum, must cover the area immediately over the driver seat and be welded or bolted to the roll cage. Steel tubing must surround the roof panel.

10.15.10: W.E.Rock recommends a spreader bar to be mounted under the dash area to connect the right and left "A" pillars.

10.15.11: If doors are not ran, a bar running from the "B" pillar, at approximately shoulder height, to the "A" pillar, at approximately shin height, must be ran. This can be a bolt in piece.

10.15.12: Periscope bars are not allowed.

10.15.13: Cage height must be a minimum of 3 inches from the entire helmet of the driver

10.16: Seating

The following are seating guidelines for competition:

10.16.1: All W.E.Rock approved seats must have padded rib protectors and seat leg extensions on the left and the right side.

10.16.2: Adequately padded headrest or neck support acceptable to W.E.Rock official inspectors is required.

10.16.3: Single seat configurations acceptable.

10.16.4: Seats must be mounted to the roll cage. Mounting to the body is not permitted.

10.16.5: An approved Five-point harness is mandatory and must be worn at all times while on an obstacle.

10.17: Steering

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

The following are steering guidelines for competition:

10.17.1: Full Hydraulic steering is permitted.

10.17.2: Rear Steering is permitted.

10.17.3: Brake Steering (See Brakes).

10.17.4: All steering components, u-joints, and fittings must be in good working order as determined by a W.E.Rock official.

10.17.5: Hydraulic steering fluids must not leak.

10.17.6: Hydraulic lines must be steel braided line in good shape. All lines must be run in a safe route.

10.17.7: Vent tubes must be attached to a fluid containment container.

10.18: Stickers

10.18.1: Teams may run their own stickers without restriction in size.

10.18.2: Stickers may not use profanity or be of a crude nature.

10.18.3: Contingency stickers must be run in accordance with the contingency sponsor's program. Contingency stickers are the responsibility of the competitor. W.E.Rock will attempt to have every contingency sticker available. W.E.Rock will ask that all competitors run the event sponsor stickers, though not required.

10.19: Suspension

The following are suspension guidelines for competition:

10.19.1: Reactive suspension systems are approved.

10.19.2: Manual suspension controls (ie. Forced Hydraulics) are approved in this class.

10.19.3: Suspension pivot points, connecting points must be free of cracks and in good physical condition as determined by a W.E.Rock official.

10.20: Tires

The following are tire guidelines for competition:

10.20.1: All factory built tires from any manufacturer.

10.20.2: All automotive-based tires. No agricultural tires are approved.

10.20.3: 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.

10.20.4: Tire Studs, screws, or anything added to the tire to aid traction are not permitted

10.21: Transfer Case

The transfer cases transfers power to the front axle and rear axle of a vehicle. The following are transfer case guidelines for competition:

10.21.1: All transfer cases are approved.

10.21.2: Vent tubes must be attached to a fluid containment container.

10.21.3: All Driveline u-joints must be covered so that broken parts may not hit any occupants.

10.22: Transmission

The following are transmission guidelines for competition:

10.22.1: All automatic or manually operated transmissions are approved.

10.22.2: Vent tubes must be attached to a fluid containment container.

10.23: Weight

Weight is the total vehicle weight.

10.23.1: The vehicle must weigh a minimum of 2200 without the driver while competing. A W.E.Rock marshal may approve weight reduction based on damage while competing.

10.23.2: Use of environmentally damaging compounds, fluids, etc. is not permitted for weight in the tires. This includes Lead. Determination of this rule will be left to occurrences; therefore penalties will be issued once the tire has torn, broken, etc. and the environmentally damaging compounds or Fluids have been releas

10.24: Wheels

The following are wheel guidelines for competition:

10.24.1: All steel and aluminum wheels are approved.

10.24.2: Bead lock wheels with locks on both the inner and outer side of the wheel or any combination thereof are approved.

10.24.3: Wheels and bead locks must not interfere with the proper operation of brakes.

10.24.4: Wheels must be mounted onto the axle with a minimum of four lug studs.

10.24.5: All lug studs must have the proper nuts on them.

10.25: Winches

The following are winch guidelines for competition:

Winches in working order are required on the vehicle at all times while competing.

10.25.1: All professionally built and sold electric, hydraulic, and power take off winches, with a minimum capacity of 5000 pounds on the first wrap of cable, are acceptable.

10.25.2: Winches must use rope type cable substitute with minimum burst strength of nine thousand five hundred (9500) pounds.

10.25.3: Rope must be in acceptable condition with minimal fraying or kinks.

10.25.4: Winch line hooks must be rated at ten thousand (10000) pounds.

10.25.5: Winch must be mounted using all factory-mounting positions on either the bottom or front and back.

10.25.6: Winch line hooks must have an attached strap, at least four inches in length.

10.25.7: Cable is not permitted for use as a Winch line.

10.25.8: Winch rope must be available for use during competition, may not be permanently attached to the axle.

10.25.9: Must be in working order and able to use (not tied to the axle) during the event in the case of an emergency or self extraction help

10.26: Window Nets

10.26.1: Safety nets are mandatory on all vehicles competing and must cover the complete open window areas where the driver can reach out. Wing Window areas included if drivers can reach any portion of their body out while fully belted in. This does not include the Windshield gap.

10.26.2: Window Nets should be tight, so that no occupant should push the net out more than 4 inches

10.26.3: Window nets should cover the entire main window area. Moreover that if alimb can come out in any way, the area must be netted.

10.26.4: Separation between the net and the cage may not be any greater than 2 inches at any point throughout the entirety of the design.

10.26.5: Nets must be secured by a positive locking mechanism and shall be installed so that the driver can release the netting and exit the vehicle unassisted regardless of vehicle position.

10.26.6: Netting must be installed on the inside of the roll cage bars so that it will not be damaged or come off the vehicle in the event of a roll-over or slide on the side.

10.26.7: The net’s border or edge and mounting materials must be made of materials that are as strong or stronger than the netting itself.

10.26.8: "Zip tie", plastic fastener, or "Velcro" systems are not permitted. Acceptable methods of tying the nets into the vehicle include: Hose Clamps, metal hooks, and steel rods. Attachment points must be welded tabs, holes drilled in the cage material- will NOT be allowed.

10.26.9: Arm restraints will be allowed but must be in addition to the required safety nets.

10.26.10: Vehicles with "Wing Areas" (the area between the A pillar and A pillar support bar) may keep the area open without netting unless reachable for the occupant while harnessed inside of vehicle.

10.26.11: Unlimited Class Single Seat Vehicles must have nets in both window areas on the driver's side and opposite where drivers can reach out both sides.

Exemption: If for any reason a team shows up without window nets and a temporary window is needed, the team must gain approval of any temporary window net with the event Marshall, the event Marshall may at their discretion approve a temporary net that is not to the letter of the above rule.

10.27 Additional Requirements

10.27.1: Two Fire extinguishers must be 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.

10.27.2: Trucks: must be mounted on the vertical main bar behind the cab, behind the driver and passenger seat, or in another suitable location, and approved by a W.E.Rock Official.

10.27.3: Extinguishers must be easily removed without the use of tools.

10.27.4: Extinguishers must be full and have Dial Indicators so that they are easy to read.

10.28: Additional Recommendations for Safety

It is recommended but not mandatory that the following items be considered as options when building a competition vehicle.

· Bead-lock rims.

· Neck supports.

Section 11: Pro Trail Class

Pro Trail Class Goal: W.E.Rock's Goal in the Pro Trail Class is to create a venue for the most advanced trail buggies to have a place next to the Single seat Unlimited Class and the restrictive Pro Modified Class. The vehicles can feature the latest technology in the competitive world but are typically larger than the similar equipped Unlimited Class. The Pro Trail Class will require two identical seats mounted side by side and a minimum of 48" wide chassis. These buggies will run on the Pro Modified Courses with cones typically set at a minimum of 8" wider than Pro mod and Unlimited Gates. Safety Regulations listed in the following rules must be followed in the Pro Trail Class.

11.1: Axles W.E.ROCK's Goal in the Pro Trail Class is to open up the restrictions and create a true hardcore trail class where builders and fabricators can push the technology.

11.1.1: All axle widths, Live Axles, Solid axles, Independent, Military style drop in axles, and farm equipment axles are acceptable.

11.1.2: Gear reduction may be prior to the axles or after the axles or a combination of both.

11.1.3: Manual wheelbase changes are allowed.

11.1.4: Differentials must have some form of 100% locking abilities.

11.1.5: Vent tubes must be attached to a fluid containment container or contain 2 complete loops so that fluid discharge is kept at a minimal.

11.2: Body W.E.Rock considers the body to be the vehicles outer layer and includes the floor, sides, rear, hood, fender, grill, and firewall. The following are body guidelines for competition:

11.2.1: All vehicles must retain a shield or firewall that separate the occupants from the engine.

11.2.2: Firewalls are required for fire safety and must be a minimum of .040 aluminum, 20-gauge metal, or 1/8” lexan. Plexiglas is not permitted.

11.2.3: Exposed transmission components must be covered with a safety shield to protect occupants from possible exposure to transmission fluids in the event of transmission case fractures or unforeseen fluid spills

11.3: Hood

11.3.1: Must cover the top of the engine completely. Hood scoops and breather holes are acceptable.

11.3.2: Fully open space cannot exist beyond twelve (12) inches in diameter without a baffle.

11.3.3: A Rear Engines Vehicle’s hood is considered the material directly behind the occupant’s head that separates occupants from the engine entirely.

11.4: Fenders Not required.

11.5: Tub/Cab

11.5.1: General condition must be in good shape without excessive rust or corrosion that would warrant concern for safety.

11.5.2: Firewalls are required for fire safety and must be a minimum of .040 aluminum, 20-gauge metal, or 1/8” lexan. Plexiglas is not permitted.

11.5.3: Firewalls must be ran from the left outer panel to the right outer panel and separate fully, the driver from the engine compartment or must “Doghouse” the engine compartment, see this link for examples: Exposed transmission components must be covered with a safety shield to protect occupants from possible exposure to transmission fluids in the event of transmission case fractures or unforeseen fluid spills.

11.5.5: Body panels, though not required are highly recommended.

11.5.6: All vehicles must have a floorboard running from under the control pedals, back to the forward edge of the seat. The floorboard must be a minimum of .040 aluminum, 20- gauge metal, 20-gauge expanded metal, or 1/8” lexan. Plexiglas is not permitted.

11.6: Brakes W.E.Rock considers the brakes to be the source of control for slowing and stopping wheels. The following are the brake guidelines for competition:

11.6.1: Mechanically operated brakes are approved.

11.6.2: Hydraulic assisted brakes are approved.

11.6.3: The brake pedal on the floor must operate all brakes.

11.6.4: Competitors may use secondary brakes for operating individual brakes on the vehicle.

11.6.5: A W.E.Rock official inspector must approve transmission or pinion brakes if they are the primary source of braking.

11.6.6: Emergency brake hydraulic locks or mechanical locks are approved for emergency brakes.

11.6.7: Emergency brake gears (mechanical type) must be in good shape and not worn to a point of possibly disengagement while under a load.

11.6.8: Brakes must be in good working condition with adequate pads. Brakes that are worn out or oil soaked will not pass.

11.6.9: Brake lines must be in good shape without leaks and ran in a safe route from cylinders to brakes.

11.6.10: Master and slave cylinders must be in good shape without leaks. Adequate braking resistance at the pedal is required.

11.7: Bumpers W.E.Rock 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.

11.7.1: Bumpers must connect the right and left frame rail.

11.8: Cooling W.E.Rock considers the following to be part of the cooling system: Radiators, hoses, engine ports, heater hoses, and coolant products. The following are the cooling guidelines for competition:

11.8.1: Air Cooling is approved.

11.8.2: Water-cooled systems are approved.

11.8.3: Radiators must be securely mounted and covered so that, in the event of a break in the Coolant Lines, spectators, spotters and drivers are protected from the coolant spill.

11.8.4: Hoses and connections must be in good condition without cracks, all connections must have a tightening device that utilizes a mechanical means to secure the connection.

11.8.5: Top mount (roof mount) radiators are not approved.

11.8.6: Radiators must have an OEM or adequate sized aftermarket overflow bottle, securely mounted, and 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.

11.8.7: The use of Ethylene Glycol is not permitted.

11.8.8: Vent tubes must be attached to an adequate sized fluid containment container.

11.9: Drive shafts W.E.Rock consider the drive shaft to be the working link between the transfer case and the axles. The following are approved for competition:

11.9.1: All mechanical drive shafts are approved.

11.9.2: All Driveline u-joints must be covered so that broken parts may not hit any occupants.

11.10: Electrical W.E.Rock includes all wires, lights, batteries, and any other items controlled by or conducting electricity as its function to be part of the electrical system. The following are electrical guidelines for competition:

11.10.1: Batteries must be in good shape with adequate mounting to keep the battery in place in the event of a roll.

11.10.2: All batteries must be of a non-spill type.

11.10.3: Mounting must be a clamp type mount that “cages” the battery in position. Foot-type clamp mounting is not approved.

11.10.4: A “Master” kill switch that shuts down every electrical system is required to be mounted on the dash, clearly labeled and in proper working order. This switch must kill the engine when switched to the “off” position.

11.10.5: Wires must be in a condition and position that is safe.Exposed or burned wires are not approved.

11.11: Engine/Motor W.E.Rock 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 as part of the engine. The following the engine guidelines for competition:

11.11.1: All engine/motor sizes and configurations are approved.

11.11.2: Engine/motor must be free of leaks

11.11.3: Engine/motor mounts must be in good condition and of adequate material to support the engine.

11.11.4: Vent tubes must be attached to a fluid containment container.

11.11.5: Dipstick caps must be sealed.

11.12: 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 fuel system guidelines for competition:

11.12.1: Carburetors are approved.

11.12.2: Fuel Injection systems that either injects fuel from a throttle body or thru ports is approved.

11.12.3: Non-vented gas caps are mandatory (Vented gas caps are not approved).

11.12.4: Unleaded, leaded, propane, natural gas, and diesel fuels are approved.

11.12.5: Alcohol is not approved for competition as a main fuel (see above).

11.12.6: Fuel systems must be sealed with a rollover valve installed in the fuel vent line.

11.12.7: Ball valves must be installed on all fuel lines including vent lines. Ball valves must be mounted so that they can be easily accessible.

11.12.8: Fuel lines must be ran from the fuel tank or cell to the engine in a safe route.

11.12.9: Fuel lines must be free of leaks or cracks in hoses.

11.12.10: 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.

11.12.11: Hand throttles are approved but must automatically return to the nonthrottle position.

11.12.12: Vent tubes must be attached to a fluid containment container.

11.12.13: Fuel Cells of rubber (Bladder Type encased in a steel or aluminum case) and plastic construction will be the only approved fuel cells allowed.

11.13: Frame/Chassis W.E.Rock considers the frame of a vehicle to be the two rails supporting the mounting of the body and drive train as the main frame, and connecting cross members as the sub frame. The following are frame guidelines for competition:

11.13.1: Tubing, boxed, or semi boxed mainframe material must be made of a magnetic steel.

11.13.2: Tubing in mainframe material must be no less than .75” outside diameter.

11.14: Vehicle Numbers Vehicle numbers must be displayed on the right, and left sides of the vehicle.

11.14.1: Numbers are to be no less than six 6” tall.

11.14.2: All numbers are to be the responsibility of the teams. If a team has a number preference, they must ask for that number to be assigned them, before the season starts. Numbers will be issued on a first come first served basis. If a number has been preassigned to another competitor, the second competitor will have to change their number. To request a number, the team must be signed up for the W.E.Rock Series.

11.14.3: W.E.Rock recommends a detachable number plate be used

11.15: Roll bars/Cages W.E.Rock considers the cage as the safety bars surrounding the driver. Cages must be designed to protect the occupant in the event of a rollover. The following are roll bar/cage guidelines for competition:

11.15.1: Six (6) point mounting cages covering the driver are required.

11.15.2: OEM bars are approved for a portion of the roll cage.

11.15.3: Handles are required on the interior portion of the roll-cage or vehicle.

11.15.4: Round steel tubing (D.O.M Preferred) 1.5” O.D with 0.095” wall is compulsory for the basic roll cage. Aluminum and/or soft metals are not permitted. Roll bar construction must be welded. A W.E.Rock official must approve roll cages made of other material or in other wall thickness/diameters.

11.15.5: Connection positions of the roll cage must tie in to the frame of the vehicle; Body mounts are considered a tie in point.

11.15.6: The front-most position must be no farther toward the rear of the vehicle than fifteen (15) inches behind the throttle and brake pedals.

11.15.7: The Cage must have a space no wider than 24” above the driver’s head, and at least 1 spreader bar between the front main bar and rear main bar are required unless the cage top is 24” wide or less.

11.15.8: Gussets must be welded in the four corners of the “halo”. Gussets may be tubing or plate steel.

11.15.9: A minimum of.040 magnetic expanded or flat sheet metal, or 1/8” aluminum, must cover the area immediately over the driver seat and be welded or bolted to the roll cage. Steel tubing must surround the roof panel.

11.15.10: W.E.Rock recommends a spreader bar to be mounted under the dash area to connect the right and left “A” pillars.

11.15.11: If doors are not run, a bar running from the “B” pillar, at approximately shoulder height, to the “A” pillar, at approximately shin height, must be ran. This can be a bolt in piece.

11.15.12: Periscope bars are not allowed.

11.15.13: Cage height must be a minimum of 3 inches from the entire helmet of the driver

11.15.14: Vehicle must be at least 48 inches wide at the door bar junction to the B-Pillar

11.16: Seating The following are seating guidelines for competition:

11.16.1: W.E.ROCK’s Goal for the Seating rule is to ensure safety. Suspension Seats are considered seats that absorb impact through springs, a Sling Design, or Foam that helps inhibit spinal compression. The following are seating guidelines for competition:

11.16.1: All seats must have padded rib protectors and lower torso containment on the left and the right side.

11.16.2: Adequately padded headrests or neck supports acceptable to W.E.Rock official inspectors are required.

11.16.3: Seats must be mounted to the roll cage. Mounting to the body is not permitted.

11.16.4: An approved Five-point harness is mandatory and must be worn at all times while on an obstacle.

11.16.5: Vehicle must have two seats that sit side by side on the same horizontal plane from front to front and back to back mounting points.

11.16.6: Seats must maintain the same size characteristics in comparison to each other. Ex. vehicles must use 2 adult sized seats or two kids sized seats, depending on the size and safety of the driver

11.16.7: Comparing the left seat and right seat, seat corners must be mounted on the same horizontal plane, front to front and back to back

11.16.8: Left seat bottom must maintain the same degree of tilt at the main seat rails, front to back and side to side, as the right seat bottom.

11.17: Steering W.E.Rock considers steering to be all components designed to turn the vehicle wheels to the left of right of the vehicle centerline. The following are steering guidelines for competition:

11.17.1: Full Hydraulic steering is permitted.

11.17.2: Rear Steering is permitted.

11.17.3: Brake Steering (See Brakes).

11.17.4: All steering components, u-joints, and fittings must be in good working order as determined by a W.E.Rock official.

11.17.5: Hydraulic steering fluids must not leak.

11.17.6: Hydraulic lines must be steel braided line in good shape. All lines must be run in a safe route.

11.17.7: Vent tubes must be attached to a fluid containment container.

11.18: Stickers

11.18.1: Teams may run their own stickers without restriction in size.

11.18.2: Stickers may not use profanity or be of a crude nature.

11.18.3: Contingency stickers must be run in accordance with the contingency sponsor's program. Contingency stickers are the responsibility of the competitor. W.E.Rock will attempt to have every contingency sticker available. W.E.Rock will ask that all competitors run the event sponsor stickers, though not required.

11.19: Suspension The following are suspension guidelines for competition:

11.19.1: Reactive suspension systems are approved.

11.19.2: Manual suspension controls (ie. Forced Hydraulics) are approved in this class.

11.19.3: Suspension pivot points, connecting points must be free of cracks and in good physical condition as determined by a W.E.Rock official.

11.20: Tires The following are tire guidelines for competition:

11.20.1: All factory built tires from any manufacturer

11.20.2: All automotive-based tires. No agricultural tires are approved.

11.20.3: 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.

11.20.4: Tire Studs, screws, or anything added to the tire to aid traction are not permitted

11.21: Transfer Case The transfer cases transfers power to the front axle and rear axle of a vehicle. The following are transfer case guidelines for competition:

11.21.1: All transfer cases are approved.

11.21.2: Vent tubes must be attached to a fluid containment container.

11.21.3: All Driveline u-joints must be covered so that broken parts may not hit any occupants.

11.22: Transmission The following are transmission guidelines for competition:

11.22.1: All automatic or manually operated transmissions are approved.

11.22.2: Vent tubes must be attached to a fluid containment container.

11.23: Weight Weight is the total vehicle weight.

11.23.1: The vehicle must weigh a minimum of 2200 without the driver while competing. A W.E.Rock marshal may approve weight reduction based on damage while competing.

11.23.2: Use of environmentally damaging compounds, fluids, etc. is not permitted for weight in the tires. This includes Lead. Determination of this rule will be left to occurrences; therefore penalties will be issued once the tire has torn, broken, etc. and the environmentally damaging compounds or Fluids have been released

11.24: Wheels The following are wheel guidelines for competition:

11.24.1: All steel and aluminum wheels are approved.

11.24.2: Bead lock wheels with locks on both the inner and outer side of the wheel or any combination thereof are approved.

11.24.3: Wheels and bead locks must not interfere with the proper operation of brakes.

11.24.4: Wheels must be mounted onto the axle with a minimum of four lug studs.

11.24.5: All lug studs must have the proper nuts on them.

11.25: Winches The following are winch guidelines for competition. Winches in working order are required on the vehicle at all times while competing.

11.25.1: All professionally built and sold electric, hydraulic, and power take off winches, with a minimum capacity of 5000 pounds on the first wrap of cable, are acceptable.

11.25.2: Winches must use rope type cable substitute with minimum burst strength of nine thousand five hundred (9500) pounds.

11.25.3: Rope must be in acceptable condition with minimal fraying or kinks.

11.25.4: Winch line hooks must be rated at ten thousand (10000) pounds.

11.25.5: Winch must be mounted using all factory-mounting positions on either the bottom or front and back.

11.25.6: Winch line hooks must have an attached strap, at least four inches in length.

11.25.7: Cable is not permitted for use as a Winch line.

11.25.8: Winch rope must be available for use during competition, may not be permanently attached to the axle.

11.25.9: Must be in working order and able to use (not tied to the axle) during the event in the case of an emergency or self extraction help

11.26: Window Nets

11.26.1: Safety nets are mandatory on all vehicles competing and must cover the complete open window areas where the driver can reach out. Wing Window areas included if drivers can reach any portion of their body out while fully belted in. This does not include the Windshield gap.

11.26.2: Window Nets should be tight, so that no occupant should push the net out more than 4 inches

11.26.3: Window nets should cover the entire main window area. Moreover that if a limb can come out in any way, the area must be netted.

11.26.4: Separation between the net and the cage may not be any greater than 2 inches at any point throughout the entirety of the design.

11.26.5: Nets must be secured by a positive locking mechanism and shall be installed so that the driver can release the netting and exit the vehicle unassisted regardless of vehicle position.

11.26.6: Netting must be installed on the inside of the roll cage bars so that it will not be damaged or come off the vehicle in the event of a roll-over or slide on the side.

11.26.7: The net’s border or edge and mounting materials must be made of materials that are as strong or stronger than the netting itself.

11.26.8: "Zip tie", plastic fastener, or "Velcro" systems are not permitted. Acceptable methods of tying the nets into the vehicle include: Hose Clamps, metal hooks, and steel rods. Attachment points must be welded tabs, holes drilled in the cage material- will NOT be allowed.

11.26.9: Arm restraints will be allowed but must be in addition to the required safety nets.

11.26.10: Vehicles with "Wing Areas" (the area between the A pillar and A pillar support bar) may keep the area open without netting unless reachable for the occupant while harnessed inside of vehicle.

11.27 Additional Requirements

11.27.1: Two Fire extinguishers must be 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.

11.27.2: Trucks: must be mounted on the vertical main bar behind the cab, behind the driver and passenger seat, or in another suitable location, and approved by a W.E.Rock Official.

11.27.3: Extinguishers must be easily removed without the use of tools.

11.27.4: Extinguishers must be full and have Dial Indicators so that they are easy to read.

11.28: Additional Recommendations for Safety It is recommended but not mandatory that the following items be considered as options when building a competition vehicle. ·Bead-lock rims. ·Neck supports.

Section 12: Sportsman Class

Sportsman Class Goal

W.E.Rock's Goal in the Sportsman Class is to create a venue for people to try out competition, It is intended for vehicles that may not meet the full class rules of one of the pro classes so that the driver can determine his level of interest before committing to building a professional competition vehicle. Moreover, it is a place for "trail" rigs to compete amongst similar rigs. Sportsman classes are not eligible for the "shootout."

Clarifications on various classes within the Sportsman Class competition:

Sportsman A: class is intended for unlimited buggies any size tire, rear steer or drag axle, single or 2 seats, any engine configuration.

Sportsman B: class is intended for limited trail buggies~~; no tire greater than 42" on a 2 seat vehicle, no tire greater than 40" on a single seat vehicle~~, no tire size restriction, chassis have to be 48" in wide at B pillar; NO rear steer allowed, any engine configuration.

Sportsman C: class is intended for vehicles with OEM style frames or unibodies~~, suspension design must mimic OEM (longer springs or link acceptable, +/- 4" from stock OEM wheelbase,~~ must have OEM frame and OEM tub, cab. Modification such as comp cut panels are allowed with approval by WEROCK official; 37" maximum tire size, minimum 2 seat vehicles only, NO rear steer.

Tire size determined by manufactures designation on sidewall of tire.

12.1: Safety Rules

12.1.1: A minimum four-part harness is required

12.1.2: Doors or doorbars are required (see 11.2.10 for bar requirements)

12.1.3: A solid roof above the driver must be in place. (see 11.2.8 for requirements)

12.1.4: DOT/SNELL approved helmet must be worn by the driver; the spotter must wear a hardshell helmet

12.1.5: Two fire extinguishers must be installed; located in a position to gain easy access from outside of the vehicle.

12.1.6: Window nets are highly recommended

12.2: Roll bars and Cages

W.E.ROCK's goal for the roll cage rule is to create a vehicle that is safe and reliable. W.E.ROCK considers the cage as the safety bars surrounding the driver. Cages must be designed to protect the occupant in the event of a rollover.

The following are the MINIMUM roll bar/cage guidelines for competition:

12.2.1: Six (6) point mounting cages covering the driver are required.

12.2.2: OEM bars are approved for a portion of the roll cage.

12.2.3: Round steel tubing (D.O.M Preferred) 1.5” O.D with 0.120” wall is compulsory for the basic roll cage. Aluminum and/or soft metals are not permitted. Roll bar construction must be welded. A W.E.ROCK official must approve roll cages made of other material or in other wall thickness/diameters.

12.2.4: Connection positions of the roll cage must tie in to the frame of the vehicle; Body mounts are considered a tie in point.

12.2.5: The front-most position must be no farther toward the rear of the vehicle than fifteen (15) inches behind the throttle and brake pedals.

12.2.6: The Cage must have a space no wider than 24” above the driver’s head, and at least 1 spreader bar between the front main bar and rear main bar are required unless the cage top is 24” wide or less.

12.2.7: Gussets must be welded in the four corners of the “halo”. Gussets may be tubing or plate steel.

12.2.8: A minimum of.040 magnetic expanded or flat sheet metal, or 1/8” aluminum, must cover the area immediately over the driver seat and be welded or bolted to the roll cage. Steel tubing must surround the roof panel.

12.2.9: W.E.ROCK recommends a spreader bar to be mounted under the dash area to connect the right and left “A” pillars.

12.2.10: If doors are not ran, a bar running from the “B” pillar, at approximately shoulder height, to the “A” pillar, at approximately shin height, must be run. This can be a bolt in piece.

12.2.11: A “periscope bar” (a bar sticking straight up from the roll cage) is not allowed.

12.2.12: The cage must allow a minimum of 3" clearance in all directions from the driver's helmet of the driver’s helmet with the driver seated and belted into driving position. Clearance to the rear may be less than 3 inches if the headrest provides adequate support to prevent helmet contact with any diagonal bracing behind the driver's seat.

Section 13: UTV Class

13.1: Safety Rules

13.1.1: A minimum four-part harness is required

13.1.2: Doors or doorbars are required (see 12.2.3 for bar requirements)

13.1.3: A solid roof above the driver is recommended. (see 12.2.2 for requirements)

13.1.4: DOT/SNELL approved helmet must be worn by the driver; the spotter must wear a hardshell helmet

13.1.5: Two fire extinguishers must be installed; located in a position to gain easy access from outside of the vehicle.

13.1.6: Window nets are highly recommended

13.2: Roll Bars and Cages

Original manufacturers equipment sport cage is considered adequate for rock crawling competition as long as the following items are present.

13.2.1:Cage must be equipped with a hard top that spans from the front (A-pillar) of the cage cross member to the rear (B-pillar) cross member as well from the right side cross member to the left side cross member.

13.2.2:Factory plastic top is adequate but a metal top of at least .080 is highly recommended.

13.2.3:Doors or door bars are required, they must attach to both the A pillar and the B pillar in such a way that they can not open during a roll over

13.2.4: Cage areas that might come in contact with a driver's helmet must be covered in a cushioned padded covering

Section 14: Mini-Buggy Class

Mini-buggy classes are designed for kids to use buggies that are built for their size, not full size vehicles adapted for them to fit in. Therefore, all measurements are designed around a 75%-80% equation in mind. Tires being the only measurements that were exaggerated.

Mini-buggy class is intended to teach kids the sport of rock crawling, NO yelling by parents or spotters at the kids or judges will be allowed, sportsmanship of all team members must be of the highest importance, displays of unsportsmanlike conduct will not be tolerated and those displaying such behavior will be disqualified from the competition.

Those above 12 years of age for their first competition will compete in the Adult classes.

Whichever class a child begins in during the season, they will continue in that class until the season closes. Age at the start of competition for the year will determine the class to compete in.

14.1: Safety Rules

14.1.1: A minimum four-part harness is required

14.1.2: Doors or doorbars are required

14.1.3: A solid metal or aluminum roof above the driver is required over the drivers' cage

14.1.4: DOT/SNELL approved helmet must be worn by the driver, the helmet must have no visible signs of damage; the spotter must wear a hardshell helmet

14.1.5: Two fire extinguishers must be installed; must be mounted outside the passenger compartment.

14.1.6: Window nets are required.

14.1.7: Fire suit is required for the driver – two-piece is acceptable.

14.1.8: Fuel cell or tank that will not leak when upside down or on its side is required.

14.1.9: Fuel shutoff valves on all fuel lines and vent lines are required.

14.1.10: A remote shut-off held by the spotter during competition, is required.

14.2: Size Requirements

14.2.1: Maximum wheel base (center line of axle to center line of axle): 93 inches

14.2.2: Maximum width outside of tire to outside of tire: 73 inches

14.3: Build Requirements

14.3.1: Refer to safety standards in Unlimited class rules to ensure proper build specification.

14.4: Class Restrictions

14.4.1: Child Buggy: class is designed for children with a minimum age of 5 prior to their first competition, to a maximum age of 8, maximum 35" tire, single seat or 2 seats, no axles larger than 9" ring gear (un-cut), maximum engine size of 650cc, NO forced induction, NO rear steer, No portal axles.

14.4.2: Youth Buggy: class is designed for children with a minimum age of 9 prior to their first competition, to a maximum age of 12, maximum 37" tire, single seat or 2 seat, no axles larger than 9" ring gear (un-cut), rear steer allowed, maximum engine size of 900cc, NO forced induction, NO portal axles.

Section 15: EV Vehicle Rules

Vehicles with exposed motor(s) in open-frame, vented, or brush replacement window motors must install a motor shield, minimum .024-inch steel or .032-inch aluminum or .120inch Lexan, 360 degrees to provide protection from flying commutator bars, molten copper, plasma, etc. in event of motor failure.

Fire Wall between battery and driver is mandatory. A deflector plate of minimum 0.063" steel must be installed between roll cage and battery pack extending from lower frame rail to the top of driver's helmet. Portion between lower and upper shoulder hoop must extend and attach to the edge of the chassis. Two-piece plate permitted with no gaps. Portion between shoulder hoop and top of helmet must be minimum 7 inches wide, may be narrowed or rounded above the helmet. Carbon fiber, titanium and all other materials prohibited.

All electrical system components (battery packs, converters, inverters, battery charger, Battery Management System, Electric Power Control Unit, or any other electrical components) must be installed no closer than 2 inches from the deflector plate.

A contingency plan must also be provided describing how to handle the battery pack in the case of overheating and/or crash. HIGH VOLTAGE EV systems will fall into one of two categories up to 600V or 601V – 1000V max. All vehicles with a voltage rating up to 600V must utilize components rated at a minimum of 600V. Vehicles with a voltage rating between 601V through a 1000V must utilize components rated at a minimum of 1000V.

15.1: CABLING • All areas of the driver's compartment must be free of any high voltage wiring • All cabling between motor inverter and battery and charger should be only what is needed and not have excessive coiled up cables. • All high voltage cabling must be identified with the color orange. • All electrical cables must be rated for the respective volt class and circuit current. • All high voltage wiring must be isolated from vehicle chassis. • Cabling must remain above lowest portion of vehicle frame

and be protected from debris by a tin/steel/carbon enclosed channel orange in color where required • Electrical cables and electrical equipment must be protected against any risk of damage (stones, corrosion, mechanical failure, etc.).

15.2: CABLE TERMINATIONS AND TERMINALS All cable terminations and splices must be properly terminated and covered with insulation at least equal to that of the cable insulation to protect against accidental contact.

15.3: FUSES: Each battery pack must be individually fused and located on or in the battery pack. Fuses must not be in parallel. Fuses must be properly rated for application. There must be a fuse between the disconnect and the battery cells. Example: 800V system requires a 1000V "A100"-style fuse, if it's a 10 second application of battery power at 1000amps, you require approximately a 300Amp battery fuse. CONTACTORS Pre-charge contactor and Main contactors must be used. For 601 to 1000-volt vehicles an emergency, properly rated, main negative voltage contactor required. Contactors must not be placed in parallel. Each individual contactor must be independently fused.

15.4: HIGH VOLTAGE IDENTIFICATION All high voltage components or their housings must be identified with the international symbol for high voltage, at least 1.5" wide at base or appropriately sized for the component. Cabling or bus bars must be covered in appropriately insulated orange insulation to indicate high voltage without a sticker.

15.5: ONBOARD BATTERY MANAGEMENT SYSTEM (BMS) MANDATORY BMS is a battery management system that is connected to the battery cells and provides automatic charging and discharging control to maintain the battery system within the battery manufactures specifications. The onboard BMS system must at a minimum be capable of enabling and disabling charging based on the battery manufacturers specifications while monitoring the individual or parallel cell groups and battery temperatures in both charge and discharge modes. It must also have the capability of derating or disabling vehicle based on pack voltage Melting Time – Current Data, 1000V Fuses Time in Seconds Current in Amperes A100P15 to 1000 SEMICONDUCTOR PROTECTION FUSES

If BMS has a built in Insulation Monitoring Device (IMD), it may be utilized in place of a standalone system. The BMS must also have the proper pack and cell high/low voltages settings programmed per the battery manufacturer's specifications.

15.6: BATTERY The Battery may be comprised of one or more Battery Packs connected together with suitably protected cables/connectors/ fuses between the packs. A battery pack may be comprised of multiple Battery Cells connected in series and parallel to form the total battery voltage and amperage required. The total battery voltage of all series cells will fall into two categories, 600V and below or 601V to 1000V. Battery cells must be starved electrolyte having little to no free liquids in them whether they are Lead/Acid, Lithium Ion, or NiCad. No solid lithium metal battery cells permitted. The battery cell manufacturers maximum charged voltage and minimum sag voltage ratings must be kept in the vehicle log book for reference. Purpose build battery box(es) dimensions must each be less than 5 cubic feet (8,640 cubic inches) in size.

- Battery container construction requirements
- Must be mounted between framerails and enclosed

- Must be made of Lexan (min .120”) or; aluminum (min .032”) or steel (.024-inch) with a nonmetallic insulation lining
- Bottom and sides must be solid
- Top cover must contain water access holes covering approximately 30% of the surface area.

15.7: BATTERY CHARGING Batteries may be recharged in pits or other designated areas only. Batteries must be charged outside of trailers or enclosed areas and must not be left unattended during the charging process. Batteries must be charged utilizing either the original unaltered OEM Charger, or an unaltered commercially available charging system, that will watch individual cell levels and have redundant ways to shut off the charging system in case of an overcharged condition. All battery cells should be balanced prior to charging. All battery chargers must be equipped with an output fuse rated above the maximum charger voltage capability and at least 125 percent of maximum charger DC output. Charging systems must connect earth ground potential to vehicle ground. The BMS system must be utilized during all system charging events. Cars must not be stored, during an event, at top of charge. INVERTER All inverters must be individually fused. All inverters must have CAN/RS232 or analog communication capabilities. Must have capability to receive feedback from Battery Management System (BMS) and/or an Insulation Monitoring Device (IMD) to turn system off in the event of a fault. Must be isolated from the driver’s compartment. IMD An IMD (Insulation Monitoring Device) is mandatory. The IMD monitors the chassis for high voltage shorting. The IMD may be stand alone or part of the electronic subsystem. The IMD must be capable of commanding, either directly or indirectly through the Vehicle Control Unit (VCU) or other computer systems, the vehicle status lights to turn red if high voltage is present on the chassis. The IMD must stay powered even when the Master Battery Disconnect is deactivated (switched off) to alert of a potential high voltage short on the vehicle. It is the responsibility of the owner/driver to understand the IMD system and have the means to test and demonstrate its functionality upon request. LOW VOLTAGE (12V): High voltage system must be disabled in the event of loss of low voltage power. 12V standalone battery must be fused at the battery.

15.8: HIGH VOLTAGE SAFETY INDICATOR LIGHTS AND AUDIBLE ALARM: Mandatory – all cars must have an LED light visible from front, rear, left, right and to the driver on interior of the vehicle. The lights must illuminate GREEN in color if high voltage is active and all systems are functioning properly (SAFE). The LED lights must illuminate RED in color if the IMD or any other monitoring system has triggered a fault (DANGER). Safety Indicator lights must remain illuminated after 12V Master Battery Disconnect has been switched off. A minimum of 1/2” LED required. LED lighting must be clearly visible at a minimum of 100 feet from vehicle in direct sunlight. Vehicles must also be equipped with an audible alarm, similar to an automobile back-up alarm with a minimum of 90 decibels. The audible alarm must be activated when the LED is illuminated RED and the systems has triggered a fault (DANGER).

15.9: 12 VOLT DISCONNECT VIA PULL PINS OR CUT LOOPS: Vehicle must be equipped with minimum of two pull pins or cut loops located on the 12v ground. They must be accessible to safety personnel in order to disable high voltage power in the event of an emergency. The pull pins or cut loops must be located near the 12v battery and in the drivers compartment and well-marked (marking requirement). No high voltage cut loops permitted! When 12 volt pull pins or cut loops are removed or cut respectively, all system contacts must be opened and the high voltage removed. The low voltage system must, at a minimum, continue to illuminate the high voltage safety indicator lights, VCU and IMD.

15.10: GLOSSARY AND TERMINOLOGY AMP Short for ampere, an amp is a unit of electricity used to measure the strength of an electrical current. AMP-HOURS (AH) An amp-hour (Ah) is the number of amps a battery can deliver in an hour. Amp hours are used to determine the battery's capacity. For example, the Tesla Model 3 Long Range has a 230 amp-hour reading, meaning it can deliver 230 amps in an hour.Section 5H, page 39 Electric-Powered Vehicle BATTERY COMPOSITION Generally, an EV battery comprises three components: cells, modules, and a pack. Simply put, these three components are units of gathered batteries. A series of battery cells make up a module. Then, one form of battery composed of many modules and various control and protection systems — i.e., the pack — is installed into the electric car. • Battery cell — A lithium-ion battery that exerts electrical energy by charging and discharging. • Battery module — A group of battery cells placed into a frame to protect the cells from heat, vibration, and external shocks. • Battery pack — The final piece of the battery system composed of several modules and control and protection systems such as a battery management system and cooling system. BATTERY MANAGEMENT SYSTEM (BMS) A battery management system (BMS) manages an electric vehicle's rechargeable battery by monitoring its status, reporting data, and protecting it from overcharging and other potential issues. CAN (AKA CANbus) CAN = Controller Area Network. A CANbus network is a standard designed to allow devices to communicate with each other and the VCU. CHARGING Charging is the process of delivering electricity to an electric vehicle using EV equipment. CHARGING STATION A charging station is a piece of equipment that provides electricity to an electric vehicle. CONNECTOR A connector is a device attached to the charging station that connects to an electric vehicle so it can charge. CONTACTOR BOX Opens and closes High voltage from Battery Packs to Inverter ELECTRIC POWER CONTROL UNIT (EPCU) The electric power control unit comprises the inverter, vehicle control unit, and low voltage converter to regulate the flow of power within the electric vehicle. INTERNAL COMBUSTION ENGINE (ICE) The engine used in gas or diesel burning vehicles. The term is used frequently in the EV community to describe our vehicle counterparts INSULATION MONITORING DEVICE (IMD) The IMD monitors the chassis for high voltage shorting. INVERTER An inverter is a device that converts a battery's direct current into an alternating current.Electric-Powered Vehicle Section 5H, page 40 E.T. KILOWATT (KW = 1,000 WATTS) A kilowatt is the measurement of an electric vehicle's power that's generated by its batteries. KILOWATT-HOUR (KWH) A kilowatt-hour is a measurement of an electric vehicle's energy that determines how much power a battery can supply over a period of time. LITHIUM-ION BATTERY A lithium-ion battery is the standard battery used for most electric vehicles. It offers high energy density and reliable rechargeability. LOW-VOLTAGE DC-DC CONVERTER (LDC) A low-voltage DC-DC converter is a component that takes DC power from the EV battery, converts it, and sends it to supplementary systems within the vehicle — e.g., the headlights. ON-BOARD CHARGER (OBC) An on-board charger converts alternating current to direct current to charge an electric vehicle's batteries. VCU (VEHICLE CONTROL UNIT) EV Vehicle Control Unit, the overall supervisory device coordinating control and data across all devices critical to the drive, safety, creature comfort and reliability systems.

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1. Sealed battery box using materials suitable to contain a fire (I used Titanium for weight but other materials could be used).

2. 2 stage pressure relief valve: stage 1 membrane allows internal and external pressure equalization to minimize condensation which could lead to an electrical short, stage 2 is a burst disk to vent internal pressure in the event a cell vents. (Fellton.com Battery Pack PRV Vent Blow Off Valve is the one I used).
3. Manual Service Disconnect (MSD) installed on the battery box that disconnects all high voltage power exiting the battery box (I used the stock Leaf MSD which has a 350A fuse but other solutions are available).
4. Structural supports suitable to restrain batteries installed inside the battery box and external structural supports suitable to restrain the battery box in all expected loading conditions.
5. High voltage isolated from other systems and fused to prevent damage or fire.
6. Dual wall high voltage wire that is of sufficient gauge for voltage and current expected.
7. All high voltage connectors are touch proof such as Amphenol SurLoc Plus Series. Grommets were not used for passing through metal panels. Bulkhead connectors (Amphenol SurLoc Plus or equivalent) for all high voltage connections that pass through metal panels.
8. High voltage contactors installed on both positive and negative high voltage battery pack leads. Contactors sized for expected voltage and current. Contactors wired to disconnect high voltage using master 12V shutoff switch.
9. Motors, inverters, battery boxes and other high voltage metal boxes grounded to the chassis using an appropriately sized ground wire.
10. Battery management system (BMS) installed that is suitable to monitor and manage the performance and safety of the high voltage battery pack. I used the Thunderstruck BMS system but many other systems are available.
11. All high voltage wiring identified by orange color or orange colored sleeving.