



**Official  
Rules**

**2020 V3  
5.28.20**

## 2020 NMRO Rulebook

### **Preamble**

The 2020 NMRO Rulebook provides guidelines and minimum standards for construction and operation of vehicles used in NMRO and Bonnier Events Performance Series. As a general rule, unless optional equipment or a modification is specifically permitted by this Rulebook, it is prohibited.

The 2020 NMRO Rules are designed to provide for the orderly conduct of the motorsports events and to reduce the risk of injury to both participants and spectators during such events.

It is ultimately the obligation of each participant to ensure that his/her conduct and equipment comply with the applicable NMRO rules and regulations, as they may be amended from time to time.

No express or implied warranty of safety shall result from publication, or compliance with, these Rules.

They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to participants, spectators or others.

Any reproduction or reprints of the 2020 NMRO Rules are not permitted without the written consent of the NMRO or the Bonnier Events Performance Series.

If, after reading the Rulebook, you still have questions, please email [infieldoperations@bonniercorp.com](mailto:infieldoperations@bonniercorp.com)

NMRO and the 4 Wheel Jamboree reserve the right to make changes to this rulebook for any reason, at any time.

The [www.4WheelJamboree.com](http://www.4WheelJamboree.com) website is a great resource for rules and event information. Please check the website on a regular basis to learn more about NMRO and the Bonnier Events Performance Series.

NMRO National  
Office Bonnier  
Events  
55 Monument Circle Suite 1200F  
Indianapolis, IN 46204  
317-236-6515  
[www.4WheelJamboree.com](http://www.4WheelJamboree.com)

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## **1. Eligibility:**

- 1.1- A participant must be at least 18 years of age, at the time of the Event, in order to compete in an NMRO event.
- 1.2- If a participant, who is in violation of the NMRO rules, seeks to enter and/or does enter an NMRO event through court action or appeal of the NMRO rules, any prize monies or award may be held in escrow until a final judgment is rendered.
- 1.3- To be eligible for points fund, contingency and/or other awards/bonus programs, a participant must display the required decals and/or uniform patches in their specified location explained by race director at event.
- 1.4- A vehicle must compete in a class before that driver may receive points, awards or purse monies.
- 1.5 - Each participant agrees that any disputes concerning any event, the rules of NMRO or any decision of NMRO officials, whether or not incident to an event, shall be resolved pursuant to the procedures provided for in the NMRO Rules.
- 1.6- Each participant agrees to be bound by the rules of NMRO and any decision of the Competition Director or Appeal Board (USAC) and agrees to voluntarily submit his/her vehicle for inspection or impoundment by NMRO to ascertain the legality of the participant's vehicle.
- 1.7- By participating, each participant agrees to release and waive NMRO, USAC, The Armory Agency, or the Bonnier Events Performance Series ("ASSIGNS") from any liability related to the rules of conduct of the motorsports event.
- 1.8- The NMRO Rules are effective upon date of publication by NMRO, regardless of when a participant receives actual notice. The current NMRO rules are posted on the website: [www.4WheelJamboree.com](http://www.4WheelJamboree.com).
- 1.9- The NMRO Rules are applicable to all NMRO Sanctioned Events.
- 1.10- An amendment is effective upon date of publication by NMRO, regardless of when a participant receives actual notice.
- 1.11- Special Rules may be made by NMRO or Race Director for an event due to extraordinary conditions. Such special rules shall apply to the conduct of that Event, if they are published or announced prior to the commencement of the Event by means of a bulletin or pre-event meeting.
- 1.12- If a participant requires medical attention, by track or other medical personnel, the participant must be released by medical personnel before returning to competition. Failure to comply with advice of medical personnel will result in disqualification.
- 1.13- If a participant loses consciousness at any time during an event; the participant cannot compete for at least seven (7) days and must be cleared by a physician.
- 1.14- Driver Change - You are allowed to change drivers for medical reasons for one race with proof of reason and prior tech approval. You will be allowed to switch back to the original driver with medical release. No change will be allowed if substitute driver has not made a qualifying run. NO SPECIAL qualifying will be set up. Once a vehicle attempts to qualify with a different driver all previous attempts by that vehicle are disqualified. The points will remain with the original vehicle and driver combination as long as there is not another change during the season. If there is a second change the points will be as a new vehicle and driver combination.

## **2. Event Credentials:**

- 2.1- Driver and Crew must receive wristbands at the same time. Only the Driver and a Max of 2 Crew Members will be allowed in the pit area, and must pick up wristbands at the same time.
- 2-2 In consideration of being allowed to enter and by being issued credentials (passes) to an NMRO event, the vehicle owner, driver, crew members and other holders of Event credentials agree as follows:
  - 2.2a - All rights to advertising, promotion, filming, recording, existing and other exploitations of the Event, the participants and vehicles entered in the Event and their activities at the site of the Event, before, during and after the Event and reasonably related to the Event, are reserved to the NMRO and its assigns.
- 2.3- Participants hereby grant the NMRO and its assigns:
  - 2.3a- Full and unconditional permission to make still and motion pictures and any other type(s) of audio or visual recordings of them and their vehicle's participation in the Event and their activities at the site of the Event, before, during and after the Event and reasonably related to the Event:

and

2.3b -The exclusive, worldwide and perpetual rights to use the same, together with their names, likeness and biographies of participants and the names, likeness and date of, or relating to, their entered vehicles for publicity, advertising, exhibition or exploitation, whether or not for profit, in print, audio, video and other communications media by reproduction and sale or other distribution by any and all means.

2.4- Participants agree:

2.4a-That without prior consent of the NMRO, they shall not take any still or motion pictures or make any audio or visual recordings of the Event, participants therein or activities at the site of the Event for use other than personal, in-home use of the participant or cause or permit others to do so or use the same.

2.4b-That NMRO shall have exclusive, worldwide, perpetual and universal use of any pictures or recordings made or used in violation of this paragraph.

2.5- Holders of credentials or passes are subject to and bound by the rules of the NMRO. Those persons holding staging area/competition area credentials may be subject to and bound by additional restrictions.

2.6- Any transfer of credential or misuse of said credential is subject to a fine of \$500, forfeiture of the credential and ineligibility to hold a credential for a period of one (1) year.

2.7 - NMRO staff or its assigns, or other Race Control Officials shall retain the authority at all times to remove any person at their discretion.

2.8- The registration/entry clerks and/or Event Officials have the authority to refuse return of entry/registration fees and to revoke credentials for any participant whom they believe has fraudulently violated the entry/registration procedures.

### **3. Conduct: Competition Rules, Disqualification, Ejection, Fines and Suspension**

**3.1.** A competitor may receive a penalty for any of the following listed below. If any of the following is believed to be incidental contact, there must be no call (no penalty). If two or more race vehicles are involved in an incident and all involved are equally at fault there will be no call, unless all involved are deemed to be overly aggressive or unsafe, then all involved will receive the same penalty.

**3.1.1.** Any contact on the approach to a jump that result in a race vehicle leaving the jump in an unsafe manner.

**3.1.2.** Heavy contact.

**3.1.3.** Light contact that is maintained: both parties must try to detach or break contact immediately.

**3.1.4.** When one race vehicle forces another race vehicle outside of, or off the competitive racing surface.

**3.1.5.** If a race vehicle makes more than one consecutive defensive move: A race vehicle may make one defensive move, only if the lead vehicle has a clear track in the direction of the move. If the track is not clear, a race vehicle may move over but must avoid contact and must leave space on the competitive racing surface for the other race vehicle to continue racing.

**3.1.6.** If a race vehicle makes heavy contact or fails to leave room on the competitive racing surface while making a defensive move.

**3.1.7.** If a black flag (penalty) is given in the last laps of a race, that race vehicle will be scored in last position of the last lap that it completes. If the penalized contact or act results in another race vehicle losing positions or not finish the race, an additional penalty will also be extending to one or more of the following, a points loss, fine, and or next race starting position penalty.

**3.1.8.** Driving through another race vehicle: An example would be, if a race vehicle leading another race vehicle has changed its trajectory and or over rotated in front of another race vehicle, the oncoming vehicle must reduce speed and try to avoid contact, (on the brakes and off the gas). If contact is unavoidable (incidental) you may not attempt or continue to push that race vehicle, even if it may result in the loss of position.

**3.1.9.** Not reducing speed when a spin, crash or other unnatural or possible unsafe incident is happening in front of your race vehicle.

**3.1.10.** If there is ANY contact made at any time other than under green flag (racing) conditions.

**3.1.11.** If more than one warning for the same offence is given during the same race to the same race vehicle.

**3.1.12.** If more than one wheel is over or outside of the track limit and an advantage or position is gained.

**3.1.13.** Not holding your line when the track is not clear to do so. (When there is a race vehicle within the length of another race vehicle, each race vehicle must hold its line)

**3.1.14.** Aggressive Driving.

**3.2.** All vehicles must be operated in a safe manner at all times within the confines of the pit area, staging lanes and track area.

**3.3.** No race participant vehicles may be operated in the 'Show and Shine' area of the Event without prior authorization of the Event Management. Event Officials have the right to stop and disqualify any vehicle if it is not being operated in such a manner as would be considered safe.

**3.3.1.** Note: Any "Pit Vehicles" (Golf Carts, ATV, etc.) found or operated in the 'Show and Shine' area, whether operated by the racer, his or her pit crew, or family, will result in the automatic disqualification of that race team in its next race.

**3.4.** No riders shall be allowed on a vehicle when it is being towed or driven. No rider in or on any vehicle in the pit, track or adjacent areas. This includes tow vehicles of any kind.

**3.5.** Participants at NMRO events are expected, at all times, to conduct themselves in a professional and non-disruptive manner. Any participant who, in the sole and absolute judgment of NMRO:

**3.5.1.** Verbally or physically threatens another participant, Event Official, or any other person

**3.5.2.** Uses vulgar, abusive or derogatory language

**3.5.3.** Engages in unprofessional and/or unsportsmanlike conduct detrimental to the sport of racing, or causes deliberate delay of the Event, or

**3.5.4.** Otherwise creates a condition or circumstances that is unsafe, unfair, or out of order, shall have violated the rules and regulations of NMRO, creating just cause for disqualification, and/or ejection from the Event, and may also result in fines, probation and/or suspension.

**3.6.** Disqualification or ejection may result in the any or all of the following penalties;

**3.6.1.** 3.5a- Participant will forfeit any prior placing, prize monies, contingency monies, points, and/or event awards.

**3.6.2.** Participant may be fined. (Fine will be determined by Race Director)

**3.6.3.** In the event of disqualification of a vehicle, no refunds will be allowed.

**3.7.** Violation of these rules is final, non-appealable and non-reviewable. In good cause NMRO officials may, without liability, reverse, or revise their decisions.

**3.8.** The decision of Track Officials shall be final and non-appealable: provided, however, that with a showing of reasonable and good cause, the Track Officials may, without liability, reverse or revise their decisions.

**3.9.** Calls of judgment are not subject to appeal and shall be final.

**3.10.** Any violation pertaining to safety equipment may not be appealed.

**3.11.** Should a crew member or a family member approach the scene of a crash or cross into an area which is off limits to them, it will result in an automatic deduction of 100 points to the team that the person represents. We have trained staff on standby at every event to ensure the very best safety and care is provided to each competitor should a racer become injured. Strictly enforced.

**3.12.** Should another racer approach the scene of a crash or cross into an area which is off limits to him or her, this will result in an automatic disqualification of that racer's team from their next race.

**3.13.** ABSOLUTELY NO ALCOHOL IN THE INFIELD. We will be checking and if anyone with a bracelet matches a driver or pit person, driver will be disqualified with no questions asked with no runs, no points, no payouts at that event. This is before, during and after racing class is over. Please be responsible for who you give your bracelets to. This is a ZERO tolerance policy.

#### **4. Apparel:**

4.1- All members of the participant's crew must be properly attired when present in the staging or competition areas. Shoes are mandatory. Bare torso's, tank tops or muscle shirts are not acceptable in the staging or competition areas.

4.2- Helmets are required in ALL divisions. Helmets must be manufactured no earlier than 2005 - NO EXCEPTIONS

4.3- It is highly recommended that ALL participants use the following FULL FIRE PROTECTION:

4.3a – Head Sock

- 4.3b – Fire resistant shoes (no leather boots)
- 4.3c – Minimum SFI Specification 3.2A – 1 driving suit
- 4.3d – Approved gloves
- 4.3e – Full faced helmets

4.4 It is highly recommended that drivers in all applicable classes use a Hans device when racing.

#### **5. Running Order Draw Procedure:**

- 5.1- A participant's competition running order position will be determined by draw at the time of entry and produce a class bracket.
- 5.2- For each class entered, the participant will have one (1) number drawn per entry in the class. The number drawn at the time of entry is the number that will determine their competition running order position.
- 5.3- The numbers are not transferable.
- 5.4- The lowest number drawn will be the first number in the running order, for that class. The next highest number, in that class, will be the next number in the competition running order, etc.
- 5.5- Any multiple entries will be put into the running order using the same procedure.
- 5.6- Every opportunity will be afforded to the participant so that back-to-back numbers will not appear in the running order. Those multiple numbers will be adjusted to the end of the running order, but may not appear last in that order.

#### **6. Entry/Withdrawal of Vehicle:**

- 6.1- Participants may enter any class in which the vehicle conforms to the rules.
- 6.2- To scratch a vehicle and receive refund of entry fee, the participant is required to notify Tech of their withdrawal prior to the start of the class.
- 6.3- If the participant doesn't officially scratch prior to the start of the class, the participant will forfeit his/her entry fee.
- 6.4- Once a participant has withdrawn from a class, that participant may not re-enter that class for that session.
- 6.5- Any refund due to a participant scratch must be collected within 30 days of the event or that refund is forfeited.
- 6.6- Race Vehicle Change - You may only change race vehicles one time during the season. If a vehicle change is done, the original vehicle will not be allowed to return with the original driver for the rest of that season without forfeit of any previous points. If qualifying run isn't made, racer will be placed in lowest seed possible.

#### **7. Staging and Timing, Transponders:**

- 7.1- A participant must be ready to compete within 2 minute after being signaled by the Staging Area Officials. Failure to stage upon the Starter's instructions is possible grounds for disqualification.
  - 7.1a - Example: Should a competitor take 2 minutes to get to the line and proceed to take another minute to get staged and into position to race, this will result in a disqualification as well.
- 7.2- It is the participant's responsibility to present his/her vehicle to the staging lanes in the proper running position and be ready to compete when his/her position is reached in the running order. Any deliberate delay will mean disqualification.
  - Note: However, if the participant makes an effort to compete, every opportunity will be offered them to make their competition appearance.
- 7.3- Participants race against the clock for lowest Elapsed Time.
- 7.4- No vehicle shall approach the starting line until the signal to compete is given. Failure to follow this rule may result in disqualification.
- 7.5- Stage lights at the top of the tree indicate that a participant may approach the starting line and begin the staging process.
- 7.6- Once a vehicle reaches the front of the staging lanes for a run; it must be prepared to fire and race.
- 7.7- Self-start and self-stage. NMRO will allow the FunnyCar style remote starter to be used in the pre-stage area only. The starter must be properly guarded and when you are told to go to the starting line, if the vehicle dies or loses power you will not be allowed to fire with the remote starter (unless you were instructed by a NMRO safety official to shut down). If you are using this type of starter, it does not allow you any extra pit people into the infield. No vehicle will be allowed to be pushed or pull started.
- 7.8- The final staging motion, using applied power, must be in a forward motion, going from pre-stage to stage position.

- 7.9- The application or use of any device, mechanical or electronic that permits the driver to ascertain the position of their vehicle in relation to the starting line is prohibited. Only visual observation of track equipment may be used to ascertain vehicle position.
- 7.10- Once you are sent to the starting line; be ready to race.
- 7.11- Pick your line; make sure the other racer has advanced to start line before you bring stage light on. After both lanes' stage lights are lit, the next light will be green
- 7.12- If both drivers of a race leave the line before the start system is activated, both are disqualified.
- 7.13- Any driver leaving the starting line before the start system is activated; including a single (bye) run will have their time disqualified for the run.
- 7.15- A green light, on the tree, indicates a legal start.
- 7.16- Vehicles which go out of bounds or hit any of the stakes between the start and finish line will be disqualified.
- 7.17- Contact with guardrails, barriers or any other track fixture is subject to a penalty up to disqualification. (Rubber cones, when used, are considered visual devices and not fixtures.)
- 7.18- Intentional crossing of the boundary lines to leave the course to avoid depositing debris on the track, or avoid contact with another vehicle is not grounds for disqualification.
- 7.19- All National Records will be based on race results.
- 7.20- Payout and points will be based on race results.
- 7.21 – If the tie persists the winner will be determined by the first to post the time.
- 7.22- If red light is illuminated on the competition tree; please shut off your engine as there may be issues on the track; ample time will be given to re-start.
- 7.23 Transponders will be used for timing for all classes and vehicles
  - 7.23.1 We will use transponder times for Qualifying and Lane Choice, as needed.
  - 7.23.2 Transponders can be rented on site for \$30 an event at Tech
  - 7.23.3 Or you can bring your own as long as it is compatible with **MY LAPS timing system (X2 MX)**. We ask that if you want to purchase one, you buy in advance from My Laps, as it needs to be activated and charged via computer before the event. (<https://speedhiveshop.mylaps.com/mx/x2-transponder-direct-power-mx.html>, USE CODE: 'social2020' for 25% OFF)

## 8. Qualifying:

- 8.1- To constitute an official qualifying attempt, all vehicles must self-start and self-stage.
- 8.2- Qualifying order and lane will be determined at the drivers' meeting, by random drawing.
- 8.3- Vehicles will have at least one (1) opportunity to qualify, which may involve using practice laps and will be used in determining the ladder. If weather is a factor in qualifying, the competition director will decide qualifying outcome for the original bracket.
- 8.4- If a vehicle jumps the starting command, the vehicle is disqualified.
- 8.5- Vehicle must meet obstacles with the two front tires.
- 8.6- If a vehicle does not meet obstacles with the two front tires a five second penalty will be assessed and added to the vehicles qualifying time.
- 8.7- If vehicle misses the obstacles completely, the vehicle is disqualified.
- 8.8- If a vehicle touches a marker or barrier; a five second penalty will be assessed and added to the vehicles qualifying time.
- 8.9- If a vehicle crosses into the opposing lane and hampers the other competitor progress, the vehicle is disqualified.
- 8.10- Vehicles must stay in the same category entered, with one registered driver, for the duration of the event.
- 8.11- All qualifiers must have a valid Elapsed Time to be placed in the elimination competition unless bracket can't be filled
- 8.12 – Tough Trucks, Mud Bogs and Mega Trucks will be timed by Transponders.
- 8.13 – In the case there are not enough vehicles in a final event, and a paid racer comes in on the day of the final event, racers may be placed in the bracket at the lowest seed possible. This is based on first come first serve basis and must be tech inspected at least 2 hours before the final event.

8.14 – In the event that qualifying is eliminated due to weather, time constraints, updated formats, or other reasons, event running order will be set by pill draw or other form of fair determination administered by the competition director.

## **9. Brackets:**

- 9.1- Category pairings are based upon established NMRO “brackets” charts. Elapsed Times, from qualifying rounds will determine Bracket positions. (16 vehicle field: 1-16, 3-14, 5-12, 7-10, 8-9, 6-11, 4-13, 2-15.)
- 9.2- Once established, pairings are not changed unless NMRO determines there is adequate justification for a change.
- 9.3- If a qualifying vehicle is not able to make the first round, the vehicle with the fastest qualifying time that did not make the first bracket will take its place. That vehicle will be bracketed into the spot of the vehicle not able to make the round. If the next fastest vehicle is not able to compete, the next fastest vehicle will be bracketed and so on.
- 9.4- If no vehicle can be ready to fill the position, the vehicle in the open bracket will receive a single pass (bye run).
- 9.5- In situations where fields are not filled, such as 14 vehicles entering a 16-vehicle field, a 16-vehicle ladder will be used. The number 1 and number 2 qualifiers could receive “bye” runs.
- 9.6- In situations where a driver is making a single pass (bye run), he is considered the winner once he stages and receives the start signal, however, the driver must make a legal run.

## **10. Lane Choice:**

- 10.1- Lane choice is determined by Elapsed Time. Elapsed time is used for lane choice only.
- 10.2- The driver with the better qualifying Elapsed Time gets first round lane choice, and in subsequent rounds, lane choice goes to the driver with the lower Elapsed Time in the previous round.
- 10.3- In some cases, competing drivers are to determine lane choice by a coin toss or a random lane assignment.
- 10.4- If a competitor crosses the boundary line on a single pass (bye run), the Elapsed Time is voided for lane choice determination.
- 10.5- If a competitor jumps the starting command (or a red light) on a single pass (bye run), the Elapsed Times is voided for lane choice determination.

## **11. Elimination Finals:**

- 11.1- The final round is a heads-up race; the first vehicle to the finish line is the winner. Elapsed time is not considered in determining the winner.
- 11.2- A participant must be ready to compete within 2 minutes after being signaled by the starter. Failure to do so is possible grounds for disqualification. See 7.1.
- 11.3- If a vehicle leaves the starting line before the start system is activated, the vehicle is disqualified.

## **12. Protest Procedures:**

- 12.1- Participant protest may only be filed by the driver or registered vehicle owner competing in the same event, in the same category as the vehicle being protested.
- 12.2- Any protest must be made within 30 minutes of class competition. The protest must be made in writing and must specifically identify in detail the nature of the violation and must be accompanied by the protest fee of \$250 cash.
- 12.3- The Competition Director shall investigate and decide the protest as promptly as possible and shall inform the parties of the protest of his decision.
- 12.4- If either of the parties does not accept the decision of the Competition Director; the written protest shall be forwarded by the official to USAC Appeal for a determination.
- 12.5- The purse of the involved category will be held in escrow as to any competitor who could be affected by the protest until a final determination has been made by the USAC Appeal.
- 12.6- USAC Appeal shall determine the merits of the protest and if the protest is sustained, impose the prescribed penalty or such lesser penalty as he determines appropriate.
- 12.7- The protested participant and the protester shall be notified in writing of the determination. The notice shall include the violation and the penalty imposed.
- 12.8- All items of protest shall be \$250.

- 12.9- If the protest is sustained, the protest fee, less the cost of any required inspection, will be returned to the protesting member.
- 12-10- If the protest is not sustained, the protest fee, less the cost of any required inspection will be forfeited to the protested member.
- 12-11- All protest decisions or suspensions are appealable to the USAC Appeal Board with the exception of what is outlined in 3.6, 3.7, 3.8 and 3.9.

*12-11-a:* In order to appeal the decision, the appealing member shall make a written request for an appeal delivered to the NMRO National Office within one (1) days of issuance of the written or electronic submission notice of the imposition of the penalty. Cost of appeal is \$500 per occurrence.

*12-11-b:* The Appeal Board shall meet as necessary to promptly consider all appealed protests. Hearings will be held as soon as possible after adequate notice of the hearing date and place has been given to the involved parties.

*12-11-c:* The Appeal Board shall establish the procedures for the conduct of the appeal that will be appropriated for the matter protested. Such procedure must allow the parties involved the opportunity to personally, but not through a representative or attorney, present their position or facts at the hearing.

*12-11-d:* A majority of the Appeal Board shall constitute a quorum for determination of any appeal and a majority of those present shall affect the decision.

*12-11-e:* In addition to a determination of the violation of a protest, the Appeal Board shall have the authority to modify the penalty imposed in order to achieve an appropriate penalty.

12-12- Any violation pertaining to safety equipment may not be appealed.

12.13- NMRO reserves the right to reject any protest filed that it determines, in its sole and absolute discretion, is frivolous or intended to harass another participant or to otherwise gain some unfair competitive advantage.

### **13. National Record Procedure:**

13.1- National Records are kept in all classes of racing. (Records in other classes will be maintained for future National Records and awards.

13.2- Each record run is made under close observation of starting procedures, running, finish, and timing.

13.3- Each vehicle is thoroughly inspected to determine its compliance with class requirements.

13.4- A participant cannot set records with 1 vehicle, and then compete in eliminations with another vehicle.

13.5- Only the driver holding the record at the conclusion of the event will be credited with the record. A driver setting, then losing, a record at the same event will not receive credit for establishing a record.

### **14. Points System:**

14.1- All points are awarded to the driver and vehicle; points cannot be transferred under any circumstances.

14.2- Points are not transferable from one category to another.

14.3- If an event is postponed for any reason prior to the start of eliminations for that category, it is necessary that any vehicle and driver still eligible for event competition be in attendance at the rescheduled date to be eligible for all points and awards based on elimination racing.

14.4- If an event is disrupted and rescheduled due to weather or other conditions after eliminations for that category are in progress, participants unable to return will be awarded points up to the round completed before postponement.

14.5- The NMRO Competition Staff has the option of allowing participants whose vehicles have experienced irreparable damage to leave the event prior to eliminations, yet retain points and awards. Participants must notify Competition Director to arrange for this allowance.

14.6- Any participant disqualified for mechanical non-compliance loses all points and awards for that particular event.

14.7- In cases involving rule infractions of a flagrant nature, as determined by the NMRO, the participant will be awarded no points or awards for that event.

14.12 Ties (Single Pass format) First Driver to post the time will receive the higher place.

14.12 - Ties (Season ending) In the case of a season ending tie the winner will first be determined by the racers number of wins, second by their number of top five finishes, third by their number of events, and should the

tie persist, winner will be determined by a coin toss.

14. 13 - Mud Bog Racing, Mega Trucks and Stock & Modified Tough Trucks will receive payout available in this rulebook.

14.14 - There are no payouts for Consolation Bracket, however there may be prizes at event.

## 15. Stock Tough Trucks

15. 1 – Explanation of Contest: The Stock Tough Truck class will consist of 2 trucks racing side by side (head to head) on a short course style off road track. A minimum of 2 Laps are taken with winner determined upon which truck crosses finish line first.

15.2 – Classification: Tough Trucks vehicle classification will be determined at Tech Inspection. NMRO will make the final decision on vehicle classification. Vehicle will have 1 classification per weekend and this classification may not be changed.

15. 3 - Vehicle Requirements: The vehicle must be a stock traditional 4-wheel drive truck or sport utility vehicle. The vehicle must be owned and operated by a registered Jamboree participant. No Spectator Vehicles Will Be Allowed.

15.4 Registration Fee: \$25 per entry; 1 per class:

15.5 Each class requires 4 entries minimum. In the event this requirement is not met, that particular class will be cancelled. Please check the 4WJ event schedule online prior to the event to determine which classes have met the requirement.

15.6 - Policy:

15.6.a Must be a licensed driver and at least 18 years of age to participate in contest. No alcohol or drugs permitted. This policy will be strictly enforced and presence of alcohol or drugs will automatically disqualify the driver and vehicle from competition. Any participant who refuses to take a Breathalyzer test, or fails test, will be disqualified immediately by the Tech Inspector.

15.6.b It is mandatory that a licensed driver be seated in the normal driving position any time the engine is running, including pit area, staging lanes, turn around and return roads.

15.6.c No high-speed driving or “hot-dogging” will be tolerated in the Tech or Staging areas. NO WARNING WILL BE GIVEN. These actions are grounds for immediate disqualification of vehicle and driver by Event Management.

15.6.d Management reserves the right to re-tech a vehicle for any reason and also reserves the right to disqualify or deny any driver the right to compete if management feels either is unsafe for any reason. NMRO decision on vehicle’s eligibility is final.

15.7 General:

15.7.a Vehicle must be in overall good shape and safe operating condition. Truck body must be firmly attached to chassis.

15.7.b Loose objects must be removed from interior of truck & bed.

15.7.c Each vehicle’s battery must be securely held in place. (No straps, rope, expando cords, etc.)

15.7.d All vehicles with any type of removable top and all open vehicles must be equipped with a 6-point roll cage and be tied into the frame of the vehicle in no less than 4 places. (This includes all Jeeps.) Roll bars must be constructed of at least .090” steel tube with a minimum diameter of 1 1/2” (exhaust pipe tubing will not be acceptable). Bends must be continuous round with no sharp corners or edges.

15.7.e Must have front and rear tow hooks with keepers. No trailer hitches.

15.7.f Vehicle MUST be equipped with a working transmission neutral safety switch, and operable forward and reverse. Vehicles must have glass side windows rolled down completely during competition.

15.7.g If a vehicle misses a ramp completely, the vehicle may be disqualified.

15.8 Driver Safety:

15.8.a Driver must wear a safety approved full-face helmet manufactured no earlier than 2005, long pants and a sleeved shirt (i.e., no tank tops). Each driver must provide his/her own helmet.

15.8.b A safety approved neck collar is required. Each driver must have a minimum of a 4-point harness with his/her own neck collar.

15.8.c Each vehicle will be required a 2 SHOULDER straps and a lap belt. A “Y” styled RACING harness will

be accepted.

- 15.8.d All harness mounting brackets should be attached directly to the frame or chassis of truck and installed to limit the driver's body travel both upward and forward. Do not mount to sheet metal floorboards. Under No Circumstances Are Bolts To Be Inserted Through Belt Webbing.
- 15.8.e Drivers must stay on designed course or may be disqualified.
- 15.8.f Driver's hands and feet must be inside the drivers' compartment at ALL TIMES while competing
- 15.8.g Window nets or arm restraints are recommended in 2020 and required in 2021.
- 15.9 - Engine:
  - 15.9.a Maximum of single 4-barrel carburetor, naturally aspirated (factory options allowed).
  - 15.9.b No superchargers/turbochargers allowed with the exception of turbos allowed if equipped from factory and no modifications.
- 15.10 - Fuel:
  - 15.10.a All vehicles must be powered by gasoline, race fuel , propane, E85 or diesel fuel. Any method of artificially cooling or heating fuel is prohibited. Absolutely no methanol.
  - 15.10.b If vehicle is capable of running nitrous, the bottle must be removed and lines disconnected at the solenoid.
- 15.11 Exhaust: Open headers or exhaust is allowed. Unless otherwise notified due to local restrictions.
- 15.12 Brakes: Factory system must be in good condition and fully operational.
- 15.13 Chassis/Suspension:
  - 15.13.a Suspension system must be stock factory or acceptable OEM replacement.
  - 15.13.b Aftermarket lift kits acceptable.
  - 15.13.c Front suspension is only allowed a maximum of 2" block/lift.
  - 15.13.d Must have a stock chassis.
- 15.14 Tires : D.O.T. only. No recaps or tread alterations.
- 15.15 Body: Full body is required and must retain truck appearance. Windshield, grills, and headlights optional.
- 15.16 Dust Light: A minimum of one rear dust light is recommended. (Mandatory for 2021)
  - 15.16.a The light must be an amber LED with a round (approximate 2.5" diameter) or rectangular (approximately 2" x 6") shape.
  - 15.16.b Light must be mounted on, or near the vehicle's centerline, and in a location that provides good visibility from the rear and side of the truck.
  - 15.16.c Must be on at all times when the engine is running.
  - 15.16.d Example of proper light: Light must meet SAE specification P2. (NAPA part# LIT 1052A-round, or LIT 2150A3-rectangular or similar lights).
- 15.17 Tough Trucks Payout: Stock (based on number of trucks entered)
  - 15.17.a Racer must provide new 2020 W9 to be paid.

Stock Class	
Requirement	Place and Payouts
5 + racers	1st: \$250 / 2nd: \$175 / 3rd: \$100 / 4th: \$75 / 5th: \$50
4 racers	1st: \$200 / 2nd: \$100 / 3rd: \$75 / 4th: \$50
3 racers	1st: \$150 / 2nd: \$100 / 3rd: \$50
2 racers	1st: \$100 / 2nd: \$50
1 racers	\$75

## 16. Modified Stock Trucks

- 16.1 - Explanation of Contest: The Modified Stock Tough Truck class will consist of 2 trucks racing side by side (head to head) on short course style off road track. A minimum of 2 Laps are taken with winner determined upon which truck crosses finish line first.
- 16.2 Classification: Tough Trucks vehicle classification will be determined at Tech Inspection. NMRO will make

the final decision on vehicle classification. Vehicle will have 1 classification per weekend and this classification may not be changed.

- 16.3 -Registration Fee: \$25 per entry; 1 per class:
- 16.4 Each class requires 4 entries minimum. In the event this requirement is not met, that particular class will be cancelled. Please check the 4WJ event schedule online prior to the event to determine which classes have met the requirement.
- 16.5 - Vehicle Requirements: The vehicle must be a traditional 4-wheel drive vehicle or sport utility vehicle. The vehicle must be owned and operated by a registered Jamboree participant. No Spectator Vehicles Will Be Allowed.
- 16.6 - Policy:
  - 16.6.1 Must be a licensed driver and at least 18 years of age to participate in contest.
  - 16.6.2 No alcohol or drugs permitted. This policy will be strictly enforced and presence of alcohol or drugs will automatically disqualify the driver and vehicle from competition. Any participant who refuses to take a Breathalyzer test, or fails test, will be disqualified immediately by the Tech Inspector.
  - 16.6.3 It is mandatory that a licensed driver be seated in the normal driving position any time the engine is running, including pit area, staging lanes, turn around and return road.
  - 16.6.4 No high-speed driving or "hot-dogging" will be tolerated in the Tech or Staging areas. NO WARNING WILL BE GIVEN. These actions are grounds for immediate disqualification of vehicle and driver by Event Management.
  - 16.6.5 Management reserves the right to re-tech a vehicle for any reason and also reserves the right to disqualify or deny any driver the right to compete if management feels either is unsafe for any reason.
  - 16.6.6 NMRO decision on vehicle's eligibility is final.
- 16.7 - General:
  - 16.7.1 Vehicle must be in overall good shape and safe operating condition.
  - 16.7.2 Truck body must be firmly attached to chassis.
  - 16.7.3 All loose objects must be removed from interior of truck and bed.
  - 16.7.4 Each vehicle's battery must be securely held in place. (No straps, rope, expando cords, etc.) If the battery is mounted in a non-stock position, it must be completely covered or placed in a battery box.
  - 16.7.5 See "Roll Cage" section.
  - 16.7.6 Vehicles with doors removed and fiberglass bodies, must have door bars on driver's side only.
  - 16.7.7 Must have front and rear tow hooks with keepers. No trailer hitches.
  - 16.7.8 Vehicle MUST be equipped with a working transmission neutral safety switch, and operable forward and reverse.
  - 16.7.9 Vehicles with permanent glass must have side windows rolled down completely during competition.
  - 16.7.10 Vehicle must have rear kill switch.
  - 16.7.11 All added weight must be painted white and securely fastened to the frame or chassis. (this will be enforced at tech inspections discretion) Any weights lost on track will result in an automatic DQ at race official's discretion.
  - 16.7.12 Transponders must be mounted safely & approved by tech on location.
  - 16.7.13 If a vehicle misses a ramp completely, the vehicle may be disqualified.
- 16.8 - Driver Safety:
  - 16.8.1 Driver must wear an SFI Specification 31.2 (closed face) helmet manufactured no earlier than 2005 and an SFI Specification 3.2A/5 or greater full fire suit.
  - 16.8.2 A safety approved neck collar is required. Each driver must provide his/her own neck collar.
  - 16.8.3 Each vehicle will be required a minimum of a 5-point harness with 2 SHOULDER straps, a submarine belt and a lap belt. A "Y" styled RACING harness will be accepted.
  - 16.8.4 All harness mounting brackets should be attached directly to the roll cage of the truck and installed to limit the driver's body travel both upward and forward. Do not mount to sheet metal floorboards. Under No Circumstances Are Bolts To Be Inserted Through Belt Webbing.
  - 16.8.5 Driver's hands and feet must be inside the drivers' compartment at ALL TIMES while competing.
  - 16.8.6 Must have a secure, 2 1/2 lbs. fire extinguisher, with a dial gauge on board, within reach of the

- driver.
- 16.8.7 Firewall and full floor (.030" minimum) are mandatory.
- 16.8.8 Window nets or arm restraints are recommended in 2020 and required in 2021.
- 16.9 - Roll Cage:
  - 16.9.1 All vehicles with a soft or removable top must be equipped with a 6-point roll cage and be tied into the frame of the vehicle in no less than 4 places. (This includes all Jeeps.)
  - 16.9.2 Roll bar must be mounted directly behind the driver's head.
  - 16.9.3 Roll bars must be constructed of at least .090" steel tube with a minimum diameter of 1 1/2" (exhaust pipe tubing will not be acceptable). Bends must be continuous round with no sharp corners or edges.
  - 16.9.4 Minimum of 1 Side Door Bar is required. This must be constructed of a round tube or square tube with a diameter of 1 1/4". This is to be mounted with the intent to protect driver in case of side impact.
  - 16.9.5 If the roll bars are padded, the welds must be exposed for inspection.
  - 16.9.6 Manufactured or purchased "show" or "dress" bars are unacceptable.
- 16.10 Engine:
  - 16.10.1 No turbo/superchargers allowed with exception of diesel engines only. Naturally aspirated only.
  - 16.10.2 No Nitrous (NO2) allowed.
  - 16.10.3 Engine setback will be no more than 15% of the overall wheelbase. Setback is calculated from the center of the front axle or spindle to the forward edge of the engine block.
  - 16.10.4 Vehicle must have a complete firewall regardless of engine location.
  - 16.10.5 Radiators not in stock mounting position must be securely mounted and are limited to electric fans only.
  - 16.10.6 All water lines passing through the driver's compartment must be shielded.
  - 16.10.7 Engines limited to a single 4 barrel or 2 barrel carburetor. Throttle body and multi-port fuel injection allowed.
  - 16.10.8 At least two throttle return springs required.
- 16.11 Fuel:
  - 16.11.1 All vehicles must be powered by gasoline, race fuel, propane, E85 or diesel fuel. Any method of artificially cooling or heating fuel is prohibited. Absolutely no methanol.
  - 16.11.2 No fuel lines will be allowed in driver's compartment.
  - 16.11.3 Any vehicle not using a stock gas tank in the original mounted position must have a fuel cell that is attached in a secure position, inside the frame rails. Any fuel cell must have an anti-spill valve. All fuel tanks must be isolated from the driver's compartment by a firewall, completely sealed to prevent any fuel from entering the driver's compartment. Insulated fuel tanks prohibited. When used, fuel cells must have a metal box protecting that part of the fuel cell that is outside of body lines or truck floor, excluding hose-connection area in rear.  
Top 4 trucks will have their trucks impounded to Tech and have their fuel tested immediately upon completion of competition.
- 16.12 Exhaust: Vehicles must be equipped with an exhaust system, but do not necessarily have to have a muffler.
- 16.13 Brakes:
  - 16.13.1 All vehicles must have operable brakes on all 4 wheels.
  - 16.13.2 Drive shaft brakes may be used in addition to the 2 wheel braking system.
  - 16.13.3 Steering Brakes Allowed
- 16.14 Suspension :
  - 16.14.1 Four-link suspension systems are allowed, front and rear.
  - 16.14.2 Cantilever and/or compound suspension systems are not allowed.
  - 16.14.3 Multiple shock kits and coil over shocks allowed. Maximum travel rating for shock not to exceed 14".
  - 16.14.4 No shocks that can be adjusted while in motion are allowed.
  - 16.14.5 No composite, fiberglass or quarter elliptical springs are allowed.

16.14.6 Shock mounting points may be strengthened, redesigned, and/or modified.

16.15 Wheels and Tires:

16.15.1 D.O.T. only.

16.15.1.1 No recaps or vulcanization. Alterations of tread design allowed.

16.15.1.2 No snap on hubcaps or wheel covers allowed.

16.16 - Body:

16.16.1 Must be truck or Jeep in appearance. All vehicles should have fenders and hoods.

16.16.2 No Tube Frames. Frames may be lengthened by adding material. Main frame rails if being modified from the firewall forward or behind the driver's compartment must be constructed of minimum 2 X 2 rectangle steel with a minimum thickness of 0.095 wall mild steel or 0.085 docol tubing with the frame rails to extend to both of the front and rear axles.

16.16.3 Frames may NOT be modified or altered from forward of the firewall to 6 inches behind back of the driver's seat. (competition director reserves the right to make decision on this rule during tech inspection)

16.16.4 Frame repair may be made due to damage, but must be made back to stock format (material/thickness/design)

16.16.5 Homemade fiberglass or sheet metal bodies must retain stock configuration.

16.16.6 Hoods, fenders and/or bedsides must be in stock position. No narrowed vehicles.

16.16.7 Full flooring in the driver's compartment required. A metal firewall extending from door to door to 6" behind the driver seat (minimum .030" thickness).

16.16.8 Vehicles damaged due to accidents will be reviewed on a case-to-case basis.

16.17 - Steering:

16.17.1 Front wheel steering only. Rack and pinion steering will be allowed. Mounting will be subject to inspection by Tech Officials. Hydraulic steering allowed but MUST have bypass on orbital box.

16.17.2 Driver seat can be relocated to center of vehicle.

16.18 Dust Light: A minimum of one rear dust light is recommended. (Mandatory for 2021)

16.18.1 The light must be an amber LED with a round (approximate 2.5" diameter) or rectangular (approximately 2" x 6") shape.

16.18.2 Light must be mounted on, or near the vehicle's centerline, and in a location that provides good visibility from the rear and side of the truck.

16.18.3 Must be on at all times when the engine is running.

16.18.4 Example of proper light: Light must meet SAE specification P2. (NAPA part# LIT 1052A-round, or LIT 2150A3-rectangular or similar lights).

16.19 Tough Trucks Awards: Modified - Must have valid 2020 W9 from racer prior to being paid.

Modified	
Place	Payout
1st Place	\$1,000
2nd Place	\$600
3rd Place	\$400
2nd Round Losers	\$250
1st Round Losers	\$175
End of Season Points	Payout
Champion	\$1,350
2nd Place	\$850
3rd Place	\$650

4th Place	\$550
5th Place	\$450
6th Place	\$400
7th Place	\$375
8th Place	\$350
9th Place	\$325
10th Place	\$300

## 17. Mud Bog Classes 1-6

- 17.1 - Explanation of Contest: This is a side by side race through a hill and hole mud bog. Winner determined by the vehicle that crosses finish line first.
- 17.2 -Classification: Mud Bog & Mega Truck Racing vehicle classification will be determined at Tech Inspection. NMRO will make the final decision on vehicle classification. Vehicle will have 1 classification per weekend and this classification may not be changed.
- 17.3 -Mud Bog Tech Fee: \$25 per entry; 1 per class;
- 17.4 Each class requires 4 entries minimum. In the event this requirement is not met, that particular class will be cancelled. Please check the 4WJ event schedule online prior to the event to determine which classes have met the requirement.
- 17.5 - Policy:
- 17.5.1 No one under 18 years of age will be permitted to compete or be allowed to enter the competition area.
- 17.5.2 No riders permitted in vehicle.
- 17.5.3 In the event of disqualification of a vehicle, no refunds.
- 17.5.4 It is mandatory that a licensed driver be seated in normal driving position any time engine is running.
- 17.6 - Driver Safety
- 17.6.1 Each driver must wear a safety approved SFI Specification 31.1OR 31.2 or 41.1 or 41.2 helmet, long pants, and sleeved shirt.
- 17.6.2 No open footwear will be allowed.
- 17.6.3 Eye protection i.e. a face shield, goggles, safety glasses are required for drivers of vehicles without a full windshield.
- 17.6.4 Classes 1-5 factory seat belt required. ALL open top vehicles must have shoulder belts.
- 17.6.5 VEHICLE GENERAL REQUIREMENTS
- 17.6.5.1 A vehicle must have a rigid front and rear hitching point. Tow hook retaining clips required
- 17.6.5.2 Hitching point must be easily accessible and of substantial construction.
- 17.6.5.3 No chains, straps, cables or frame rail holes permitted.
- 17.6.5.4 Shackles or pulling on the rear axles will not be acceptable.
- 17.6.5.5 If you are using a stock or add-on bumper, the mounting brackets must be at least ¼" thick. A pintle hook (rather than a clevis) will pass as long as the top jaw locks and releases.
- 17.6.5.6 All fuel lines, coolant lines, belts, and hoses must be in good condition.
- 17.6.5.7 EVERY VEHICLE MUST HAVE AN IGNITION KILL SWITCH. A stock ignition switch will pass. The kill switch must be clearly labeled KILL SWITCH or ON or OFF. Kill switch must shut power off to all electric pumps and ignition systems. Switch must be within drivers reach while he/she is fastened securely in seatbelt and/or harness.
- 17.6.5.8 No engine or transmission cooling devices or fuel lines will be allowed inside drivers compartment of the vehicle.
- 17.6.5.9 Each vehicle's battery must be securely held down (No straps, rope, expando cords, etc.) If the battery is mounted inside the passenger compartment, it must be completely covered and secured. A marine-type case is highly recommended.
- 17.6.5.10 If vehicle comes unhooked during the pass, driver required to re-hook.
- 17.7 ENGINE

- 17.7.1 Class 1-4 must be single carburetor, naturally aspirated expect factory option.
- 17.7.2 After market EFI acceptable. OEM turbochargers are permitted.
- 17.8 - FUEL
  - 17.8.1 All fuel tanks must be isolated from drivers compartment by a firewall.
  - 17.8.2 Fuel lines must be isolated from driver's compartment by sub floor.
  - 17.8.3 Tanks must have adequate latching gas cap.
  - 17.8.4 Tanks must have sufficient capacity to make full runs.
  - 17.8.5 Adding fuel after engine has started is prohibited.
  - 17.8.6 Fuel tanks must be securely fastened with a min. of 2 metal straps  $\frac{3}{4}$ " min. width
- 17.9 -TIRES
  - 17.9.1 D.O.T. tires with raised D.O.T. stamping on the sidewall.
    - 17.9.1.1 No cut or modified tires in Classes 1 – 4
  - 17.9.2 NO recapped tires will be allowed.
  - 17.9.3 Tire sizes will be determined by MFG stamping on tire
  - 17.9.4 Tires must be mounted with NO missing lug nuts.
  - 17.9.5 NO duals, paddles, scoops. (tractor tires allowed in Class 6 only)
- 17.10 BODY
  - 17.10.1 Firewall and full floor are mandatory (.030 minimum)
  - 17.10.2 All vehicles in class 1 – 4 with full removable tops and open vehicles must be equipped with a roll bar and shoulder belts.
  - 17.10.3 Roll bars must be substantial construction (exhaust pipe tubing will be not be acceptable) with a min. diameter of 1-1/2 round tube with no sharp corners and with sufficient mounting to vehicles.
  - 17.10.4 If roll bars are padded the area of the welds shall be exposed for inspection.
  - 17.10.5 Roll bar must be constructed of at least .090" steel. Must be constructed in a manor such that it is one continuous bend.
  - 17.10.6 Manufactured or purchased "show" bars are not acceptable.
- 17.11 – TECH
  - 17.11.1 All vehicles competing in a driving event must be inspected and meet all tech rules pertaining to the class.
  - 17.11.2 No vehicles will be teched in on trailer. NO one will be allowed to unload in front of the tech area.
  - 17.11.3 No high speed driving or hot-dogging will be tolerated in the tech area, pits, or staging area. These actions are grounds for immediate disqualification of vehicle and driver by event management.
  - 17.11.4 ALL TECH DECISION ARE FINAL!
    - 17.11.4.1 What you drive through tech is what you compete in. If you do not pass the first time through, you will be told what you need and can be re-teched before your tech class closes. YOU MUST HAVE SAFETY EQUIPMENT WITH YOU AT TECH IN ORDER TO PASS. When you have completed tech, go to the tech registration area and receive your running order.
    - 17.11.4.2 ABSOLUTELY NO ALCOHOL IN THE INFIELD. We will be checking and if anyone with a bracelet matches a driver or pit person, driver will be DQ'd with no questions asked with no runs, no points, no payouts at that event. This is before, during and after racing class is over. Please be responsible for who you give your bracelets to. This is a ZERO TOLERANCE policy
    - 17.11.4.3 TECH WILL CLOSE 90 MINUTES BEFORE THE CLASS STARTS.
      - 17.11.4.3.1 Running order for all classes will be determined by random drawing at tech. Final class standing will be determined using the fastest time or distance.
      - 17.11.4.3.2 Vehicles will not be allowed to wash off between runs except windshield and tread areas. Each Truck can have a maximum of 2 drivers per truck, with 1 pass per entry.
      - 17.11.4.3.3 Each truck can run as many classes as desired (with applicable entry fees) but must have tires to match class. A reasonable amount of time will be afforded for a tire swap between classes.
      - 17.11.4.3.4 ABOLUTELY NO RUNNING ON BOG WALLS. Result will be an immediate DQ.
      - 17.11.4.3.5 Passes are based on ET for full pass. Maximum distance achieved on all others. Time begins at movement of the truck. 15 second crawl rule applies.
      - 17.11.4.3.6 Each driver must bring their own vehicle UNASSISTED to the staging lane and is responsible for

staging of said vehicle. Mandatory drivers meeting in Tech area 1/2 hour prior to start of competition.

17.11.4.3.7 If a vehicle crosses the center line, between the lanes, the vehicle may be disqualified.

17.12 CLASSES 1-3 STOCK - For stock mini, and full size trucks with 4,6,8, and 10 cylinder. These classes are designed for ordinary every day, street driven, 4-wheel drive (only) vehicles.

17.12.1 ENGINE

17.12.1.1 Stock engine and transmission (engine swap allowed)

17.12.1.2 Maximum of single 4-barrel carburetor, naturally aspirated (factory options allowed)

17.12.2 FUEL

17.12.2.1 Gasoline or diesel only. No alcohol fuel permitted. (E85 Fuel is allowed)

17.12.2.2 No nitro methane, alcohol fuel accelerators, or nitrous oxide allowed. If any vehicle is capable of running nitrous, the bottle must be removed and lines disconnected at the solenoid.

17.12.2.3 No propane in diesel.

17.12.3 EXHAUST

17.12.3.1 All class vehicles must have muffler and it must be firmly attached and point up or down.

Subject to tech approval.

17.12.3.2 Class 2-6 open headers ok.

17.12.3.3 Exhaust must point up or down. Subject to tech approval.

17.12.4 BRAKES: Factory system must be in good condition and fully operational.

17.12.5 SUSPENSION

17.12.5.1 Suspension system must be stock factory, or acceptable OEM replacement.

17.12.5.2 After market lift kits acceptable.

17.12.5.3 Front suspension is only allowed a maximum of 2" block.

17.12.5.4 No removal of leaf's from springs allowed.

17.12.5.5 4-link coil over shocks not allowed.

17.12.6 TIRES

17.12.6.1 Class 1-3, DOT No cut tires.

17.12.6.2 Class 1: Tire size less than or equal to 33". Class 2: Tire size 34" - 36".

17.12.6.3 Class 3: Tire size 37" - 39.5".

17.12.7 BODY

17.12.7.1 Class 1 -3, full body required.

17.12.7.2 Must have front and rear tow hooks with keepers. No trailer balls.

17.12.7.3 CLASSES 4, 5, 6 Vehicles must be 4-wheel drive with front and rear differentials and drive shafts.

17.13 EXHAUST

17.13.1 Competition exhaust permitted. Fenderwell, frame, or zoomies.

17.13.2 Exhaust must be directed to rear or at ground, away from driver, fuel tank, and spectators.

17.13.3 Rear stacks are acceptable

17.14 BRAKES

17.14.1 Must have working brakes and pass tech

17.15 SUSPENSION

17.15.1 Suspension system may be factory style or competition suspension.

17.15.2 Aftermarket lift kits acceptable.

17.15.3 Front suspension is only allowed a maximum of 2" block.

17.15.4 4-link coil over shocks allowed.

17.16 TIRES

17.16.1 Class 4: Tire size 40: - up DOT – NO CUT TIRES

17.16.2 Class 5: All cut DOT tires

17.16.3 Class 6: V treads (tractor tire) minimum 14.9x24 (49") Tire or Larger

17.17 BODY

17.17.1.1 Body may be steel and/or fiberglass. Driver protection must be present. Subject to tech approval.

17.17.1.2 Vehicle must have complete floor pan.

17.17.1.3 Vehicle must have firewall between driver and engine.

- 17.18 ENGINES/FUEL – Class 5 & 6 Nitrous Allowed. Blowers allowed with approved working IIR.
- 17.19 Classes are capped at 24 competitors Class 1-3 & 30 competitors Class 4 – 6
- 17.20 Mud Bog Racing & Mega Truck Racing Awards: Must have valid 2020 W9 from racer prior to being paid.

Class 1
1st - \$400
2nd - \$100 Bonus plus 100% Pay-in/Payout
3rd - \$50 Bonus plus 100% Pay-in/Payout
4th - 100% Pay-in/Payout
5th - 100% Pay-in/Payout
Class 2
1st - \$400
2nd - \$100 Bonus plus 100% Pay-in/Payout
3rd - \$50 Bonus plus 100% Pay-in/Payout
4th - 100% Pay-in/Payout
5th - 100% Pay-in/Payout
Class 3
1st - \$400
2nd - \$100 Bonus plus 100% Pay-in/Payout
3rd - \$50 Bonus plus 100% Pay-in/Payout
4th - 100% Pay-in/Payout
5th - 100% Pay-in/Payout
Class 4
1st - \$500
2nd - \$100 Bonus plus 100% Pay-in/Payout
3rd - \$50 Bonus plus 100% Pay-in/Payout
4th - 100% Pay-in/Payout
5th - 100% Pay-in/Payout
<b>Class 5</b>
1st - \$700
2nd - \$100 Bonus plus 100% Pay-in/Payout

3rd - \$50 Bonus plus 100% Pay-in/Payout
4th - 100% Pay-in/Payout
5th - 100% Pay-in/Payout
<b>Class 6</b>
1st - \$900
2nd - \$100 Bonus plus 100% Pay-in/Payout
3rd - \$50 Bonus plus 100% Pay-in/Payout
4th - 100% Pay-in/Payout
5th - 100% Pay-in/Payout

### 18. Mega Truck Racing

- 18.1 Explanation of Contest J Track: : The Mega Truck class consists of 2 trucks racing a J- Shaped Track. The race begins with each truck staged and racing on their own track with various jumps and obstacles. The 2 tracks merge together on the way back to the finish line with the winner being determined by the first truck to cross it.
- 18.2 Explanation of Contest Hill & Hole Track: This is a side by side race through a hill and hole mud bog. Winner determined by the vehicle that crosses finish line first.
- 18.3 Mega Truck Tech Fee: \$100 per entry; (Includes J Track & Hill & Hole)
- 18.4 Each class requires 4 entries minimum. In the event this requirement is not met, that particular class will be cancelled. Please check the 4WJ event schedule online prior to the event to determine which classes have met the requirement.
- 18.5 Tires must be at least 48" tall.
- 18.6 Axles must be 2 1/2 ton or larger.
- 18.7 Any engine combination.
- 18.8 Must have driveline containment/ u joint shield.
- 18.9 Must have working RII (Remote Ignition Interrupter) will test each race. If you do not have a RII one will be provided for 1 race only, after that you will have to furnish your own.
- 18.10 Must have at least a fire extinguisher (Co2 recommended) within reach of driver or fire suppression system.
- 18.11 Must have a containment seat of some type.
- 18.12 NO OEM frames! Tube chassis of some type with roll cage.
- 18.13 Must have some type of master disconnect switch at rear of vehicle.
- 18.14 Drivers must wear a neck restraint of some type. NO NECK ROLLS.
- 18.15 Drivers must wear a full fire suit NO JEANS (pants/jacket)
- 18.16 Full face Helmets required. No open face helmets allowed FULL FACE HELMET
- 18.17 Must have a minimum of 5 point harness belts.
- 18.18 Full boots/fire shoes are required. No open toe!
- 18.19 Use common sense and have fun TRUCKS must meet every rule every pass.
- 18.20 Mega Truck Class (1) 14".9X24" (49") And Taller 2.5 Ton And Larger Axles
- 18.21 Mega Truck Class (2) 12".4X24" (45") And Smaller Tires 2.5 Ton & 1 Ton Axles Permitted
- 18.22 No alcoholic beverages allowed in the pit area or on the race course.
- 18.23 All racing vehicles must remain in the pit area after being inspected.
- 18.24 Idle speed at all times when in the pit area or while going to and coming from the track.
- 18.25 Drivers have 3 minutes after each call for class to stage.

- 18.26 If your vehicle becomes stuck or stalls, you will be given a reasonable length of time to get started. To continue competition no track staff is allowed to assist.
- 18.27 Each vehicle must complete their staging to be eligible to place during the eliminator event.
- 18.28 Event Management may clarify a class at a meet. Event Management will not be responsible for the miss-classifying of any vehicle.
- 18.29 Mega Truck Awards: - Must have valid 2020 W9 from racer prior to being paid.

Mega Truck Prize Purse

<b>Mega Truck Prize Payout - Class 1</b>	
1st	\$2,500.00
2nd	\$1,500.00
3rd	\$500.00
4th	\$250.00
5th	\$250.00

**Class 2 - TBD**

**19. Monster Truck**

- 19.1 - All drivers must have a valid Driver’s License. This license must be checked prior to each event.
- 19.2 - DRIVER & CREW
  - 19.2.1 A current CDL or CDL equivalent [Europe HGV medical required] physical is required. Current physical means a physical at least every (2) two years.
  - 19.2.2 Approved helmets are mandatory. All competitors must use an (new spec.) SFI 31.1 full or open face helmet or (old spec.) SFI 31.2A (Snell SA) rated full-face helmet or SFI 31.1A (Snell SA) rated open-face helmet. (SA = Special Application Nomex lining Competition Helmet), SA2000 SNELL rated helmet are also legal. SFI 41.2, SFI 41.1 or SNELL M, motorcycle helmets are not allowed. NMRO recommends helmet restraints. (Straps from underarms to sides of helmet.) Full-face helmets are highly recommended. Helmets must be sent back to the manufacturer for re-inspecting after being dropped or hitting any hard object.
  - 19.2.3 Eye protection is required during performances. Goggles and helmet shields that are approved for motor sports competition are recommended Windshields are always required.
  - 19.2.4 A Motorsport Head & Neck Restraint System with a SFI Specification of 38.1 is required. Motorsport Neck Collars no longer allowed.
  - 19.2.5 Drivers must operate vehicles in a safe manner at all times. The show or competition director has the right to stop and disqualify any driver not operating his or her vehicle in a safe manner.
    - 19.2.5.1 Vehicles should not drive over 5MPH except during performances.
    - 19.2.5.2 Any time the engine is running a participant should be in the drivers’ seat with complete control of the vehicle.
  - 19.2.6 All contestants and the pit crew must be clean, neat and professionally attired when appearing before the public.
  - 19.2.7 Drivers must be at least 18 years old.
  - 19.2.8 No one is allowed in the performance area during an event, except track officials and a minimum number of crewmembers.
  - 19.2.9 Before a driver can perform, the exhibition area must be cleared of all spectators and participants.
  - 19.2.10 Drivers must, at minimum, have a seatbelt on at all times the vehicle is moving with 66” tires.
  - 19.2.11 The driver has the final decision on whether he or she can perform the race or exhibition in a safe manner.

19.2.12 Consumption of intoxicating agents or drugs before or during an event by a driver or his or her pit crew will be grounds for disqualification of driver. If the driver is found violating this rule he or she is subject to suspension from NMRO.

### 19.3 -REMOTE IGNITION INTERRUPT (RII)

19.3.1 Required use of RII's on all Monster Trucks to enhance the safety of Spectators and Participants.

19.3.2 RII's, (Remote Ignition Interrupter), must be tested by a qualified operator prior to the exhibition. This makes sure the driver has his receiver on and switched to the correct channel. This also gives the RII operator a chance to depress the button on the transmitter and see how easy it is to stop the vehicle. The Monster Truck will not run if the (RII) is not on. The RII is required first to protect the spectators, second to protect the participants, and third to protect the driver.

19.3.3 RII receivers and transmitters are required on all Monster Trucks. ("RII" denotes Remote Ignition Interrupt)

19.3.4 RII's must be setup so the engine will not operate unless the RII is on.

19.3.5 Drivers cannot participate in an event unless all vehicles involved, within the Monster Truck portion of the performance or race, are equipped with RII's in working order.

19.3.6 RII's must be tested before the event and each round of a race, or performance.

19.3.7 Anytime a vehicle moves above idle speed, a qualified operator must control the RII transmitter. This includes testing; show introductions, race return-lane time, parade laps, etc.

19.3.8 RII's must always be switched to the Right channel. Only when performing or racing in the Left lane can the switch be set to the Left channel. After racing or performing in the left lane the RII must be switched back to the RIGHT channel. If you have a Center RII channel, it can only be used when a promoters RII transmitter is not present and your RII transmitter is used.

19.3.9 One person for each RII; this means one qualified RII operator controlling each vehicle.

19.3.10 Anyone altering or bypassing the RII receiver will be suspended. Resetting of RII after being stopped, before the RII operator or official gives you permission to start, is the same as bypassing and is subject to suspension.

19.3.11 The RII Light must be on or above the dash and visible to the track official in front of the vehicle. It must be an Auto Meter Pro Light or an equivalent light, approved by NMRO, with a red lens. When applicable a second light will be a lane indicator, right is red and left is yellow. The new Audiax RII comes with both Pro Lights. The lights must be, (two feet apart minimum), mounted at least one foot to each side of the center of the windshield.

19.3.12 Receiver antennas must be vertically mounted.

19.3.12.1 Note for RII operators: Sometimes it is prudent for the RII operator not to stop (kill) a vehicle when it is in an awkward situation and let the driver try to power out of that bad situation. This can only be done when spectators and participants are not in danger.

19.3.12.1.1 RII Legal Radios

19.3.12.1.2 RII Radios LLC. (609) 625-3481

19.3.12.1.3 Audiax Radios (216) 392-6800

19.3.12.1.4 Motorsport Communications (866) 966-8672

19.3.12.1.5 L. A. Supertrux Ltd. +44 1327 705456

### 19.4 VEHICLES

19.4.1 Vehicle Certification is required before the exhibition.

19.4.2 Vehicles must be re-inspected after a major crash or rollover.

19.4.3 A Kill Switch must be mounted within 12" of the rear of the vehicle. Switch must be mounted between the frame rails at a maximum height of 6'. Switch must be Pull or Twist to turn off. Pull type must utilize a 2" diameter 1/8" thick ring. Twist type must be clearly labeled with On and Off directions. Pull ring/Twist handle must be painted high visibility red or orange. Switch must shut off all power except electrically operated brake system and/or RII unit as with in-cab Kill Switch Rule #39.

19.4.4 All vehicles must be equipped with a commercially made back-up alarm, mounted at the rear most part of the frame. This alarm must be activated anytime vehicle is in reverse. The shift gear lever must mechanically activate the alarm. The alarm sound must face rearward.

- 19.4.5 All vehicles must be equipped with a Bright Light mounted on the rear of the frame. This light must illuminate anytime vehicle is placed in reverse and must be activated automatically by the gear shift lever.
- 19.4.6 Dry or gel type batteries are mandatory. Batteries must be secured and covered with a non-conductive material. Material to be rubber, plastic or Lexan only.
- 19.4.7 An external crossover relief valve is required on all vehicles equipped with orbital steering. Unit may bolt directly to orbital valve or be remotely mounted.
- 19.4.8 Tires must be 66x43x25 or 66x44x25 (size as marked on tire), unless agreed to by all participants.
- 19.4.9 Monster Truck minimum weight is 9000 pounds. Weight includes driver, fuel, water, & oil.
- 19.4.10 Shock Absorbers
  - 19.4.10.1 Shock Absorbers must be mounted securely to chassis and axle/links with minimum 5/8" Grade 8 shouldered bolts placed in double sheer configuration (see fig. 11).
  - 19.4.10.2 All pressurized Shock Accumulators (reservoirs) must be mounted securely in a position which avoids contact with tires.
  - 19.4.10.3 Threaded End Caps must utilize 1/2" SAE fine thread.
  - 19.4.10.4 Remote mounted accumulators must be fastened with metal or aluminum clamps, no tape or wire ties permitted. 2-piece single bolt clamps must be mounted a minimum of 3" below the pressurized accumulator cap. Cap Restrictors are required on all shock accumulators/reservoirs. These must be of steel construction with saddle portion of minimum 1/8" thickness and gussets of minimum 1/4" thickness. Cap Restrictors must be securely mounted via bolts or T-bolt clamps. Nylon tie wraps and spiral hose clamps not allowed.
- 19.4.11 Onboard fuel (including primer)
  - 19.4.11.1 Must be in an anti-spill tank/fuel cell located in an open area inside the main frame rails of the chassis. Careful consideration should be given for protection of both top and bottom of fuel cell in the event of component failure or rollover.
  - 19.4.11.2 Must be secured with a minimum of two (2) 1/8" x 1" steel or aluminum straps, or via the manufacturer's recommended mounting points.
  - 19.4.11.3 All fuel lines must be approved steel-braided or high-pressure reinforced rubber. d.) Vent line anti-spill valves are required (Vented Caps Not Allowed).
  - 19.4.11.4 Grounding of fuel cap during fueling is recommended to reduce chance of static discharge.
  - 19.4.11.5 Bottom of Fuel Cell must be shielded with 1/8" steel or 1/4" aluminum or Lexan. (Fuel Cells mounted within steel cans may be combined with 1/8" aluminum or Lexan)
- 19.4.12 Link Bars
  - 19.4.12.1 Links must be constructed of minimum 2.5" (lower links) and 2.25" (upper links) diameter .250" wall DOM tubing
  - 19.4.12.2 Minimum 1" Spherical Rod Ends with 76,200 lbs. load rating (Aurora AM-16, FK KMX-16, or equivalent)
  - 19.4.12.3 1" Grade 8 shouldered bolts mounted in double sheer configuration (see fig. 11).
  - 19.4.12.4 A tow bar mount is required on the front and rear of all vehicles. A 2x2" [50 x 50mm] square receiver (trailer hitch type), is recommended.
- 19.4.13 All vehicles must be equipped with a Fixed Disk type mechanical Wheel Restraint System on each wheel. Cable Type Wheel Restraints no longer allowed. Minimum specifications for these systems are as follows:
  - 19.4.13.1 3/8" Rotor Plate bolted (3/8" Grade 8 minimum – all bolt holes on hub must be used) or welded (360 degrees) to hub.
  - 19.4.13.2 Minimum two Capture Points 180 degrees on center with minimum 55 degrees of coverage around perimeter.
  - 19.4.13.3 Capture Points and mounts must be constructed of minimum 1/4" thick steel.
  - 19.4.13.4 Upper and Lower Capture Points must be tied together to inhibit spreading.
  - 19.4.13.5 Capture Points must be within 1/2" of Rotor Plate.
- 19.4.14 IMPORTANT NOTES
  - 19.4.14.1 Do not refuel while battery is charging.

19.4.14.2 No smoking while refueling. A fire extinguisher must be within easy reach.

#### 19.5 DRIVER'S COMPARTMENT

- 19.5.1 All vehicles must have an In-Cab Kill Switch, within easy reach of the driver that shuts off power to all electric fuel pumps, other powered accessories and ignition system (all battery power) with the exception of electrically operated brake systems. Driver must be able to activate it with his or her eyes closed in his or her seat-belted driving position. It must be a push/pull type with push to turn off.
- 19.5.2 All vehicles must have an approved SFI 17.1 Onboard Fire Suppression System
- 19.5.3 [Europe AFFF is mandatory] with a minimum of six (6) properly placed nozzles. A minimum five (5) lb. [2.25kg] tank can only have two (2) nozzles with three (3) outlet ports each; a 10 lb. [4.5kg] or larger tank can have two (2) or more nozzles with three outlet ports. The system must be tested each year. (The lines must be blown out with a liquid similar to WD40 and the activating cable tested and lubricated.) The bottle pressure gauge and weight must meet Manufacture Specs. (A proper onboard fire system will inhibit the fire while the driver clears the vehicle.) If the content is Halon, keep the outlet spray away from the drivers face as it could inhibit oxygen supply. Driver must be able to activate the system with his or her eyes closed in his or her seat-belted position. An onboard fire suppression system is not required on stock production cabs with sealed Firewalls.
- 19.5.4 All vehicles must have a minimum size 2 ½ lbs. dry agent type Fire Extinguisher with functional gauge and current inspection certificate attached. The extinguisher must be securely mounted with quick release bracket within the driver's reach. Safety release pin must be easily removable and not secured with non-perforated nylon tie strap.
- 19.5.5 Firewall & Windshield.
- 19.5.5.1 The driver's compartment must be protected against engine compartment flash fires. Firewall material must be a minimum (.063) 1/16" [1.5mm] Steel or Aluminum, (.125) 1/8" [3.2mm] Polycarbonate/Lexan, or Fiberglass. Plexiglas cannot be used. Floor protection is always required.
- 19.5.5.2 Front engine firewall: A firewall is required in front of the driver. Firewalls must go from the floor to the roof and from the body skin on one side to the body skin on the other side. A rear Lexan window is not required.
- 19.5.5.3 Rear engine firewall: A firewall is required behind the driver. The firewall must go from the floor to the ceiling. A rear Lexan window is required.
- 19.5.5.4 Mid-engine firewall: (Under the cab engines). A firewall is required underneath, behind, and in front of the driver. A rear Lexan window is also required.
- 19.5.6 Windshields are required on all vehicles at all times. Windshields can be a minimum of (.125) 1/8" [3.2mm] Polycarbonate/Lexan. It is recommended that smoked Polycarbonate/Lexan windshields be used to reduce glare. Glass windshields are permitted on steel bodied vehicles but drivers must wear eye protection.
- 19.5.7 Drivers must be protected from Tire Debris. There will be no exposed areas that would allow the front tires to throw objects at driver or allow objects to bounce and hit driver. Material must be a minimum (.125) 1/8" [3.2mm] Steel or Aluminum (.250)
- 19.5.8 1/4" [6.4mm] Polycarbonate/Lexan or the Fiberglass body parts. The entire floor of the cab is also considered a tire debris area and must be protected.
- 19.5.9 All vehicles must have an approved 5-point harness that meets SFI 16.1, mounted to the frame or frame outrigger. Lap belts must be 3" [75mm]. Shoulder belts may be 2" [50mm] for use with Hans type braces. Driver must wear the harness at all times (this also includes the crotch strap). It is highly recommended that shoulder harnesses be mounted at shoulder height to a maximum of 3" [75mm] above shoulders. All straps must have a manufacturer date stamp on them and they cannot be over 2 years old. Sternum straps and helmet restraints are highly recommended.
- 19.5.9.1 Ratchet strap seat belt that meet the SFI 16.1 are legal even with 2" [50mm] lower strap.
- 19.5.9.2 Head & Neck Restraint System with an SFI Specification of 38.1 is required for all drivers. Such a system is designed to decrease both neck stress and head excursion during a vehicle impact without reliance on helmet impact into structures. This system must allow freedom of movement of head, torso, arms, etc. commensurate with operation of race vehicle under all race and associated conditions. The release mechanism shall be accessible to both the user and to external personnel such

that no additional motion is required, other than the release of the seat belts to disengage the Head & Neck Restraint System

19.5.9.3 All Seats must be securely mounted with minimum of (4) 3/8" Grade 8 bolts to the frame or a frame outrigger. Recommend the drivers' seat is in the middle on all new vehicles.

19.5.9.4 Monster Truck Specific Containment Seat required. Stock car and off-road racing type suspension seats no longer allowed.

19.5.10 Driver compartment windows must be removed or down during a performance. There must be 2 exit points from the driver's compartment. Doors must be unlocked.

19.5.11 No fuel tanks, fuel lines, batteries, radiators or water hoses are allowed in the Driver's Compartment. Hydraulic steering lines that are located in the driver's compartment must be steel braided and must be shielded to deflect the oil away from the driver in the event of a line failure. Shielding material must be robust enough to deflect the oil at full pressure. Mechanical Oil Pressure gauges must use braided lines.

19.5.12 No Nitrous Oxide, Nitro Methane or any Oxygen Carriers or Combustion Accelerators allowed.

19.5.13 No Loose Objects allowed in vehicles.

19.5.14 There will be No Riders allowed in a vehicle during a performance.

19.5.15 All fuel-injected engines must have a Fuel Shut-off Valve within easy reach of driver. It must be marked with the direction to shut off. (Push or pull)

19.5.16 Vehicles must have operable forward and reverse gears and must be equipped with reverse gear lockout.

19.5.17 All vehicles must be equipped with a Starter Interrupter switch that will allow starter engagement only in the neutral position on a standard or Lenco transmission or park and neutral positions on an automatic transmission. Engines cannot start in reverse or forward gears.

19.5.18 All vehicles must be equipped with an approved SFI 42.1 Quick Release Steering Wheel Disconnect.

## 19.6 ROLLAGE

19.6.1 Rollcage specifications:

19.6.1.1 All vehicles constructed in 2016 or prior must feature:

19.6.1.1.1 Minimum 2" diameter .120 wall D.O.M. steel or chrome-moly fully welded roll cage.

19.6.1.1.2 Minimum 8 attachment points on the main frame structure and/or outriggers. The eight points must consist of a vertical main hoop behind driver (2 points) with rear support tubes (2 points) extending down from the upper corners of the hoop, in addition to a-pillars tubes ahead of the driver (2 points) with front support tubes (2 points) extending down from the highest point of the a-pillars possible. Support tubes may attach to main frame rails or shock towers.

19.6.1.2 All vehicles are required to have a lateral "X" brace within the main hoop extending down from upper corners.

19.6.1.3 All vehicles constructed or reconstructed beginning 2017 must also feature:

19.6.1.3.1 Outriggers below a-pillar and main hoop cage junctions must feature triangulated support tubes which attach to a lower point on the frame braced by a crossmember or mid-plate which ties to the opposite frame rail.

19.6.1.3.2 A-pillar tube sweep must not exceed 45 degrees from vertical.

19.6.1.3.3 Each a-pillar tube must feature minimum 1 additional vertical support tube extending from upper corner down to main frame rail without bends.

19.6.1.3.4 Main hoop must feature minimum 4 lateral attachment points on chassis. 2 points may attach to outriggers but minimum 2 points must connect directly to main frame rails and may be comprised of required X brace.

19.6.1.3.5 Main frame rail at a-pillar, main hoop, and outrigger attachment points must be constructed of minimum .188 wall D.O.M. steel or chrome-moly tubing.

19.6.1.4 Non-critical support tubes may be sectioned to allow removal of engine or other components but must utilize tubing couplers or flanges with minimum 4 bolts at each end.

19.6.1.5 All Rollcage and frame tubing repairs must be sleeved with a 6" [152mm] internal sleeve.

19.6.1.6 All grand fathered steel-bodied vehicles are permitted to run a 6-point cage. They are not allowed to race in a series or point's race.

19.6.2 Fire retardant roll cage padding no longer required due to the adoption of containment seat

requirement. If roll cage padding is utilized it must have a SFI 45.1 rating.

- 19.6.3 All vehicles lacking stock production doors (fiberglass doors) must have at least one side bar no more than 2" [50mm] below the window and one side bar at floor height to protect the driver from side impact. These bars must be parallel to the ground and least 2" [50mm] in diameter.

## 19.7 ENGINE

- 19.7.1 All exhaust must discharge within a 10-degree angle of being straight up or rearward at a 45 degree down angle. Exhaust cannot discharge straight down. No rain caps. All exhaust pipes and mufflers must be securely attached.
- 19.7.2 All carburetors and fuel injection butterfly shafts must have dual return to idle springs. A return to idle spring must be located on both butterfly shafts or at both ends of a single shaft. They cannot be attached at the same location. The spring on the throttle pedal does not count as one spring but is recommended.
- 19.7.3 Air cleaners are required on all injector hats
- 19.7.4 All throttle linkage from cab to the engine must be cable operated and must be a positive action push pull type. Cable must not be stretched tight; it must have flex to allow for the engine-to-cab movement.
- 19.7.5 Throttle toe straps are required. A "Hot Foot" open loop (refer to Fig. #6) or a complete loop will suffice.
- 19.7.6 All supercharged vehicles are required to use Aluminum Blower Studs and SFI
- 19.7.7 Blower Restraints.
  - 19.7.7.1 Blower Belt Shields are required if fuel lines are located in an area where they could be compromised by a blower belt failure. Maximum 8/71 blowers, 10% overdrive, standard size 2-rotor 3-lobe type only. Rotor angle not to exceed that of standard GM 71 series. No high helix, screw type rotors or internal modifications to increase blower size. Blower rotor maximum length 16" [406.4mm] and a 1 to 1 internal gear ratio with proper rotation.
- 19.7.8 Single Supercharged and Naturally Aspirated engines only. Any induction system not specifically covered in this rule book must be approved by the Board of Directors prior to public performance.
- 19.7.9 All engines must have a deflection shield on both sides of the engine block. Shields must cover the engine block from the center of crank to the top of the block. The heads do not have to be covered. Shield must be securely fastened with a minimum 2 - 3/8" [9.5mm] bolts and made of aluminum or steel minimum (.250) 1/4" [6.4mm] thick. Frame rails can serve as part of the shielding. "Tube chassis trucks cannot use the tubes as part of the engine shield".
- 19.7.10 No engine driven fans, electric fans only.
- 19.7.11 No cast iron or cast steel pulleys allowed on any moving part that runs at or above the speed of the engine.
- 19.7.12 Harmonic Balancers Not Allowed
- 19.7.13 Aluminum engine blocks will be permitted.
- 19.7.14 Maximum engine size is 575 cubic inches [9.422litres].

## 19.8 TRANSMISSIONS

- 19.8.1 Automatic transmissions must have a Safety Blanket with proper bellhousing straps and it must be 18" [457mm] wide (as measured from the bellhousing to the tail shaft), and it must meet SFI 4.1 certification. No metal shields are allowed. It must cover from rear of pan forward. (Label sewn on blanket.) Blankets must be in good condition. If blanket has been in a fire, has burnt straps or has been torn, it must be replaced. Metal shields are not allowed. Carbon Fiber shields are allowed. Aftermarket nodular transmission Cases which meet SFI 4.1 and Bellhousings which meet SFI 30.1 certification standards do not require external safety blankets. Cases and bellhousings must feature current SFI certification labels. Manufacturers of SFI approved cases and bellhousings.
  - 19.8.1.1 ATI Performance Products
  - 19.8.1.2 Bruno's Automotive Products
  - 19.8.1.3 BTE Racing
  - 19.8.1.4 Hughes Performance
  - 19.8.1.5 Reid Racing
  - 19.8.1.6 TCI Automotive
- 19.8.2 An SFI 29.1 certified Flex Plate is required on all automatic transmissions. There is a 3 year limit on flex plates and then they need to be sent back for re-certification.

19.8.3 All transmission bell housings with 8" [203mm] or longer inspection hole opening must have a 2" [51mm] wide shield covering the exposed transmission flex plate with a max distance from the flex plate of 2" [51mm]. There must be a minimum of 2 spaced mounting tabs if the opening is under 12" [305mm] and 3 spaced mounting tabs if over 12" [305mm].

#### 19.9 MECH. CLUTCH VEHICLES

19.9.1 Lenco transmissions are required to have an explosion proof blanket. Couplers must be shielded 360 degrees as per Jackshaft rule #83.

19.9.2 Mechanical clutch vehicles must have an SFI Spec. 6.3 approved explosion proof bellhousing with a current SFI label affixed to it. Any change to the original unit requires re-certification. Any Bellhousing lacking certification must be sent back to the manufacturer for certification or disposed of. Bellhousing certification is good for (2) two years.

19.9.3 The inspection/maintenance hole, in the bellhousing, is acceptable if made precisely to the specifications outlined in the drawings. A clutch inspection & maintenance hole may be cut on the back face of the housing. The hole may not be longer than an area covering 90 degrees (no longer than 8 1/2" [216mm]) of the housing rear surface area. No part of the rotating clutch assembly may extend under the clutch inspection & maintenance hole. (Refer to fig. #7)

19.9.4 Clutch maintenance hole MAY NOT be welded if the original hole in the housing was over 8 1/2" [216mm] in length or 3 1/2" [89mm] wide. All bellhousing holes must be flush on the inside surface when cap is installed. (Refer to figure #7)

19.9.5 The cover for the inspection & maintenance hole must be at least (.250) 1/4"

19.9.6 [6mm] thick steel and be fastened with at least twelve (12) 5/16" [8mm] Grade-8 bolts. (Refer to figure #7)

19.9.7 An approved steel plate or billet flywheel is required. No cast iron flywheels.

19.9.8 All automotive type engines with bellhousing and clutch will run full block saver plate between the engine and bellhousing, either a commercially available unit, or 3/16" [6mm] steel or (.250) 1/4" [6.4mm] aluminum with 5 - 3/8" [9.5mm] Grade 5 or better bolts evenly spaced on the bottom of the bell housing.

#### 19.10 DRIVELINE

##### 19.10.1 82. Driveshafts

19.10.1.1 Driveshafts must be constructed of minimum 3.5" diameter .083" wall DOM tubing and utilize minimum of 1480 Series U-Joints.

19.10.1.2 Billet End Yokes are required on all Driveshafts. Billet Flange Yokes are highly recommended where available. Caution must be exercised to verify that driveshaft angles do not exceed the maximum operational u-joint angle of yokes.

19.10.1.3 Slip Yoke Restrictors must be installed on all Spline Tube Shafts. These must be comprised of a continuous 360-degree reinforced oil-resistant hose and of a length covering 1" less than the distance between the slip yoke collar and driveshaft tube.

19.10.1.4 Chain Drive transfer cases Not Allowed

##### 19.10.2 Driveshaft loops are mandatory on all vehicles.

19.10.2.1 Materials for driveline loops must meet the following minimum specifications:

19.10.2.2 Side rails must be made of 1" X .156" wall DOM tubing.

19.10.2.3 4" diameter ring shielding the slip yoke of the driveshaft must be 4" schedule 40 steel pipe 3 1/2" wide.

19.10.2.4 6" diameter rings shielding the drive shaft tube must be 6" schedule 40 steel pipe 1 1/2" wide.

19.10.2.5 Ring gussets must be made of 3/16" mild steel.

19.10.2.6 Slide rods must be 5/8" SAE, Grade 8 material - 12" long

19.10.2.7 The spherical bearing rod ends must be 5/8" female thread with a minimum radial static load capacity of 17,959 lbs.

19.10.2.7.1 Rod Ends which meet this minimum requirement are:

19.10.2.7.2 FK Rod Ends JFX10

19.10.2.7.3 Rod End Supply PFX10

19.10.2.7.4 QA1 HFR10T

19.10.2.7.5 Aurora Bearing Company AW-10

19.10.2.8 Fabrication of driveline loops must meet the following minimum specifications:

19.10.2.8.1 The maximum distance between all driveshaft loop rings cannot be greater than 7" with a minimum of (2) loops per shaft.

19.10.2.8.2 The maximum distance between all driveshaft loop rings and the driveshaft is 2"

19.10.2.8.3 Loop rings must be 360 degree and welded securely to both 1" x .156" side rails and must not float.

19.10.2.8.4 Loop 4" & 6" rings must feature gussets welded vertically to the rings, but not to the side rails.

19.10.2.8.5 At the differential, the maximum distance from the face of the last loop ring to the face of the u-joint shield must not exceed 10".

19.10.2.8.6 Driveshaft loops must incorporate (1) fixed corner which must be oriented to the chassis end and bolted to the u-joint shield utilizing a 5/8" female spherical rod end and 5/8" Grade 8 bolt.

19.10.2.8.7 The 5/8 x 12" Grade 8 threaded rod material for the fixed corner must only be welded into the 1" x .156" side rail tubing with four (4) rosette welds

19.10.2.8.8 Driveshaft loops must incorporate (3) non-fixed 5/8 x 12" Grade 8 threaded slide rods which must slide within the 1" x .156" side rail tubing and be mounted to the u-joint shields utilizing 5/8" female spherical rod ends and 5/8" Grade 8 bolts.

19.10.2.8.9 Driveshaft loops must be bolted at each end to u-joint shields one which must be fixed and one which must feature a rotator which allows for suspension articulation without binding the loops. (Ref. Rule #87)

19.10.2.8.10 Driveshaft loops must be painted or coated in a high visibility contrasting color.

19.10.2.9 All driveline u-joints must be enclosed within U-Joint Shields. These must be a minimum of 5" wide, 4" diameter schedule 40 pipe or equivalent (1/4" steel) and cover u-joints a full 360 degrees. Aluminum shields are not allowed. U-joint shields must be attached by a minimum of two tubes per side with each tube a minimum of 1" x .120, or (3) three 1" wide 1/4" steel mounting straps. U-Joints should not be visible from side, top or bottom and be completely contained within the shield.

19.10.2.10 One U-joint Shield attached on each driveshaft loop assembly must feature a Rotator Device which allows for articulation of the suspension without binding the driveline loops.

19.10.2.11 The driveshaft loop rotator ring must be a minimum of 1/4" steel. It must be retained by a minimum of four 1/4" thick tabs welded to the u-joint shield. The u-joint shield must be a minimum of 5" long, 6" diameter schedule 40 pipe or equivalent (1/4" steel), covering the yoke 360 degrees. The u-joint shield must be attached by a minimum of two tubes per side with each tube a minimum of 1" x .120 or (3) three 1" wide 1/4" steel mounting straps.

19.10.2.12 Any variations to this design must have written approval from NMRO.

19.10.2.13 Maximum distance between a U-joint and U-joint shield is 2".

19.10.2.14 U-joint shields cannot be attached to driveline yokes or rotate 360 degrees.

19.10.2.15 Jackshafts must utilize minimum 1350 Series U-Joints or Coupler. Jackshafts and couplers must have 360-degree shielding covering both u-joints and shaft. Shields must be minimum 3/4" steel with maximum distance of 2" between shield and shaft/coupler. Shield may be 2 pieces bolted together.

19.10.3 Intermediate Splined Shafts and couplers (transfer case to carrier bearing) must be enclosed 360-degrees. Intermediate Driveshafts must utilize driveshaft loops and u-joint shields consistent with Rules #83-87 for standard driveshafts.

19.10.4 Driveshaft slip yoke must have a minimum penetration in any axle configuration, equal to half the length of the spline in the most extended position, approximately 2" [51mm].

19.10.5 Non Planetary steering axles are required to have a shield covering the axle flange or lockout hub. Minimum (.250) 1/4" [6.4mm] steel.

19.10.6 Split Ring type wheels not allowed.

## 19.11 BRAKES

19.11.1 All vehicles must be equipped with foot operated hydraulic brakes in good working order. The brakes must be able to stop the vehicle in its own length at 10 MPH [16KPH]. If your vehicle does not have lockers, wheel brakes are recommended.

19.11.2 All rubber tired vehicles must be equipped with dual braking systems consisting of two master cylinders

with one brake pedal and individual lines running to the front and rear brakes.

19.11.3 All track vehicles must be equipped with dual braking systems. You must have a foot or hand operated hydraulic brake system as a backup to the normal track lever steering and brake system.

#### 19.11.4 Brake Rotors

19.11.4.1 Brake Rotors of billet steel construction only. (Cast Rotors not allowed)

19.11.4.2 Brake Rotor Guards required on non-driveline side pinion mounted rotors. Guards must be secured by minimum 3 tabs spaced 120 degrees on center.

19.11.4.3 Brake Rotor Guards not required on rotors mounted on the driveline side of the pinion.

19.11.4.4 Brake Rotors must utilize minimum Grade-8 Bolts with Prevailing Torque Type Lock Nuts. (Nylon Insert Type Lock Nuts not allowed)

19.11.4.5 Vehicles equipped with driveline brakes are required to have the front brake assembly mounted on the front differential. The rear can be mounted on the transfer case.

#### 19.12 RULE VIOLATIONS

19.12.1 If an owner, driver or member breaks a rule, he or she will be subject to a fine or suspension.

19.12.2 If an owner, driver or member repeatedly breaks a rule or rules, (3 or more times) he or she will be subject to a fine, suspension and or the loss of their ability to participate overall.

19.12.3 The inspection sheets are legal rule violation reports and members will be fined accordingly.

19.12.4 Fines and suspensions will be issued by the Competition Director after a hearing. Hearings can be carried out by mail or fax.

19.12.5 Minor rules affect the safety of the driver only. A minimum fine of \$25.00 for the first time violator and \$50.00 for the repeat offender.

19.12.6 Major rules affect the safety of spectators and participants. A major rule violation is subject to a maximum fine of \$5000.00, up to a year suspension and or termination from participating in the series. The amount of the fine and/or suspension would depend on the severity of the violation and would be determined by the Competition Director.

19.12.7 Non-safety rules do not affect the safety of the driver, spectator or participant. A fine of \$25.00 for first time violators and \$75.00 for the repeat offender.

19.12.8 All fines must be paid within 45 days or participation will be revoked. Written protest will be accepted only after the fines are paid.

19.12.9 Tech Inspectors have the authority to fail a vehicle inspection should they deem that a feature/component or the quality of its manufacturing is not consistent with the spirit of the applicable rule.