



*Mojave Mile Shootout*

*2010 Rule Book*



*MKM Racing Promotions*

*[www.mojavemile.com](http://www.mojavemile.com)*

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## MKM RACING PROMOTIONS, LLC

# RULES, REQUIREMENTS, AND SPECIFICATIONS

## *for the MOJAVE MILE SHOOTOUT*

*Second Edition - Revised July 2010  
Subject to change without notice*

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## ***General Rules & Requirements***

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MKM Racing Promotions LLC (hereinafter referred to as "MKM") events are sanctioned, competitive motorsports events, the conduct of which is governed by MKM Racing Officials in accordance with MKM Rules, Requirements, and Specifications. The Rules, Requirements, and Specifications may be amended from time to time, along with any special rules, requirements or specifications that may be issued by MKM for specific events, and any applicable agreement to which MKM is a party. By submitting his/her entry application and/or taking part in any activity relating to MKM events, an entrant agrees to abide by the decisions of MKM officials relating to the event or any matters arising out of the event. The entrant further agrees that such decisions are final.

Close observance of these rules is required for all participants, including drivers, riders, and crew. Particular attention must be paid to the minimum safety equipment requirements. These Rules, Requirements, and Specifications are intended as a guide. NO EXPRESS OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM THE ISSUANCE OF, OR COMPLIANCE WITH THESE RULES, REQUIREMENTS, AND SPECIFICATIONS, OR ANY SUBSEQUENT ALTERATION. COMPLIANCE WITH THESE RULES, REQUIREMENTS, AND SPECIFICATIONS DOES NOT IN ANY WAY GUARANTEE AGAINST INJURY TO, OR DEATH OF PARTICIPANTS, SPECTATORS, OR OTHERS. You are reminded that **all motor sports are dangerous**. There is no such thing as a guaranteed safe motorsports competition. Motorsport always carries with it the risk of serious injury or death. This risk cannot be eliminated no matter how much all those concerned work to make the sport safer. The safety of the driver or rider, and the vehicle, is **solely his or her own responsibility**. By participating in this event, the participant accepts all risks of injury or death, whether due to negligence, equipment failure, or otherwise. If at any time, the participant does not accept these risks, he/she agrees not to participate in this event.

MKM officials will act upon these Rules, Requirements, and Specifications as well as any situation arising not specifically covered in this rule book, and their decisions are final and non-negotiable.

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## **Acceptance of Rules, Requirements and Specifications**

All persons or groups making official entry in MKM events are assumed to know the Rules, Requirements, and Specifications. **Their participation in the event shall constitute acceptance of these rules.** Decisions of the organizers in their interpretation and enforcement are final.

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## **Event Description**

The **Mojave Mile Shootout** is a motorsports "speed trial" competition based on achieving the highest possible trap speed in one mile from a standing start. Entry is open to 2-wheeled motorcycles and 4-wheeled vehicles that meet the specifications in this rule book. Entry is also open to many vehicles meeting established Land Speed Racing specifications. Detailed rules appear later in this book.

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## **Entry Procedures**

An official MKM application for entry must be completed, signed, and legible, with entry fee enclosed, paid in full, and postmarked no later than 7 days prior to the first day of the event. Entries received after that, or at the event itself, will be assessed a \$25 late fee. MKM reserves the right to limit the number of entries, and we reserve the right to reject or refuse any entry. The deadline for entry changes is generally 72 hours prior to the start of the event. Changes after that, or last-minute changes at the event itself, may be possible but are discouraged. If a paid entrant decides to withdraw from the event prior to the 7 day deadline above, 50% (only) of their paid entry fees will be refunded. After the deadline, no refunds will be given. Refunds will not be given for adverse weather or other factors beyond our control. Credit toward future events may be given, at the sole discretion of MKM.

## Registration Procedures

All entrants must register at the event. The purpose of registration is to identify all entrants and vehicles taking part in the event and to complete all required paperwork, indemnity releases, and payments. MKM must register any person or persons taking part in or attending an event. This includes drivers, riders, crews, helpers, family members, the media, sponsors, associate sponsors and event officials. Credentials and/or wristbands will be issued and will be used to control access to restricted areas. The credentials/wristbands must be visible at all times (except when covered by race clothing during a run).

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## A word about spectators, children, and pets

While there isn't a separate spectator area per se, there is room for a limited number of spectators to attend. Spectators may sign the appropriate waivers and get a wristband allowing entry to the Paddock area. It will be possible to view the start line and the first part of each run, and there will be a speed display board set up that shows the speed for each run. We ask that spectators please make every effort to stay out of the way of racers, vehicles, and officials. Spectators may not go beyond the Paddock area. MKM reserves the right to expel unruly or disruptive spectators. Race entrants are reminded that they are responsible for the conduct of all persons that they bring with them, be they friends, family, crew, or otherwise.

We must note here that the event operating areas are not "kid and pet friendly." There is nothing for young children to do, and pets are a safety hazard both to themselves and to others. Children and pets will not be allowed out of the Paddock area and must be supervised by an adult at all times. You cannot ever leave your children or pets unattended, or let them run loose on the airport grounds. Children also cannot operate ANY KIND of wheeled or motorized vehicle or device at ANY TIME. This includes bikes, trikes, scooters, pedal cars, razors, skateboards, skates, big wheels, RC vehicles, etc. Pets MUST be on a leash at all times, and a loose pet is grounds for expulsion from the event -- the last thing we need is a terrified, uncatchable dog loose on an active runway. Please DON'T bring your pets unless absolutely necessary.

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## Waivers

All persons admitted to the grid, pits/paddock and/or other restricted areas of MKM sanctioned events must obey all Rules, Requirements, and Specifications set forth by MKM. Each person admitted must complete and sign all releases of liability and other documents requested by MKM. Minors will have a special liability waiver that must be signed by the parent or legal guardian that accompanies them. All entrants empower MKM to represent them in assigning rights for reproduction of sanctioned events by electronic, broadcast and/or print media and automatically assign rights to use their name, facsimile, etc., in media related materials and/or advertising and promotion of sanctioned events.

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## Participation Limit

A driver or rider may enter multiple vehicles in this event. Each of these multiple entries will be at full price and will require a complete separate set of entry forms.

**Vehicle Sharing:** Each entered vehicle may have one (and only one) more additional driver/rider added. The second driver/rider will pay full entry price less \$40. The vehicle must remain in the same division and keep the same Tech Speed for both persons, meaning that both drivers/riders must have a sufficient level of personal safety equipment for that division. Both drivers/riders must be present at Tech Inspection.

**No passengers** will be permitted in or on any entered vehicle during a speed run unless pre-approved by MKM, and that is unlikely to happen under normal circumstances. Media or VIP "ride-alongs" may occasionally be allowed, but only by special advance arrangement with MKM.

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## Age Requirements

All driver or rider participants in this event MUST be at least 18 years of age. To receive an MKM Unlimited license, a driver or rider must be at least 21 years of age. All persons under the age of 18 attending the event will be restricted to a designated area and must be accompanied by a parent or legal guardian, who must sign a special minor liability waiver and who will be responsible for their safety and conduct at all times.

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## License and other Requirements

All drivers and riders must have a currently valid (not expired, suspended or revoked) US State or Territorial, Canadian Provincial or Territorial, US or Canadian military, or EU driver's license. (If yours is not one of these, it may still be acceptable; contact MKM for approval. An accompanying IDP may be required.) Motorcycle riders must have a current Motorcycle license/endorsement suitable for the size of their bike. Learner's permits or provisional licenses are not acceptable.

In addition, all drivers and riders require the proper MKM speed licensing to run in this event and to exceed certain speed thresholds. See **Competitor Qualifications & Licensing** for details. The Event director has complete discretion as to who will or will not run and how fast they are allowed to go.

All vehicles in S4 and MS divisions must have a current US or Canadian vehicle license, registration and insurance card.

All entrants must have permission to run the vehicle in this event from the vehicle's registered owner. **NO RENTAL VEHICLES ALLOWED.**

All entrants must complete a medical release form. It is YOUR responsibility to note any drug sensitivities or allergies on that form.

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## Event Officials

The Event Director is responsible for the overall conduct and safety of the event. A driver or rider's access to the track is at the sole discretion of the Event Director. The Event Director will supervise all aspects of the event, including communications, emergency personnel, timing and scoring, and event control officials. The Event Director may appoint additional personnel to help officiate at the event, at his discretion.

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## Driver/Rider Meetings

A meeting and briefing for all drivers and riders will be scheduled for the evening prior to the first day of the event. Additional meetings to accommodate later arrivals may be scheduled each race morning, and/or in the evening between days of racing. A schedule will be posted that shows all meeting times. **ATTENDANCE IS MANDATORY** for all drivers and riders. No one will be allowed to run before attending at least one of these meetings.

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## Protests and Appeals

A formal protest/appeal procedure has not yet been established. However, if there is something that you think is not right, please bring it to the attention of the Event Director, who will evaluate each complaint, decide if it has merit, and determine if any course of corrective action is possible or necessary. The Event Director's decisions are final.

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## Track Description; Timing, Starting and Running

The track will be a section of runway exactly one mile (5280 feet) in length. One vehicle at a time will be on the track. Electronic timing triggered by laser beams will be used to determine speed. The "speed trap" used to measure speed will consist of the last 132 feet of the one-mile track. Running order will generally be "first come, first served". Race vehicles will proceed on a taxiway from the pre-grid/paddock area to the start staging area. Racers will use a semi-standing start with an approximate 25-foot prestart box. (This is to avoid, or at least reduce, the stress and breakage associated with "drag race" starts.) There will be **no pre-run or warm-up burnouts** allowed, and **starting burnouts must be kept to a minimum**. Elapsed Time will not be measured, only Top Speed. There will be a minimum 0.8 mile stopping distance available after the speed trap, with at least 600 feet of emergency flat dirt runoff after that. After slowing to a safe speed, vehicles will exit and return on a taxiway to the paddock area, where they can get back in line for another run. While on the taxiway, a strict 50 MPH (30 MPH for towed vehicles) speed limit is in effect, and traffic control personnel/flaggers **MUST** be obeyed, since you will be crossing active runways. On the way, each vehicle will stop briefly at the timing station and receive the speed slip for the run.

Any vehicle that fails to slow down sufficiently before the end of the pavement and goes into the emergency dirt runoff area, or goes off-track in any other way, will not be allowed to run again without further inspection and review by MKM officials, who may impose a lower speed limit or bar the vehicle from further competition.

At this event, **all vehicles must be able to leave the staging lanes, come to a stop at the starting line, start and complete their run, and exit the runway, all under their own power, without outside assistance** (except in case of breakdown). Please be aware that at this event, the staging lanes may be a considerable distance from the starting line. We're sorry, but vehicles that require assistance at the starting line (crew members and/or push-start) can't be accommodated at this time. Motorcycles may be pushed to the start line by the rider if desired. Towing to the prestart staging area or back from the far end is allowed but not required. If a vehicle can be **safely** driven or ridden on the taxiway to and from their run, it's preferred by us, as it will help keep things moving and will reduce two-way traffic on the taxiway.

There will be **NO** repairs allowed on any vehicle once it is in the line for its next run. If repair is needed, the vehicle must leave the line and return to the pits. **ANY time the engine is running (even in the pits), and whenever the vehicle is being towed, a driver/rider must be at the controls of the vehicle.**

## Security Regulations

Use only the official gate to enter and leave the event. Don't leave the event's assigned area and don't wander or drive into any off-limits areas of the airport. Follow only officially marked routes. All minors must be supervised at all times by a parent or legal guardian. Minors are not allowed to operate any wheeled vehicles. **NO ALCOHOLIC BEVERAGES ARE PERMITTED ON THE PREMISES.** Firearms, weapons, fireworks, bonfires, barbecues, fire pits, burn barrels and other open flames are prohibited. Pets **MUST** be kept confined or on a leash at ALL times, no exceptions! Finally, **no glass containers** in the pit area, please!

Remember that we are guests at a county-owned active airport facility. That means that security is taken seriously. Please adhere to the above regulations at all times. Failure to do so may result in your expulsion, or even arrest.

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## Speed Limits (Tech Speed, License Speed)

Tech Speed is the highest speed that we allow for a given vehicle, independent of whoever is driving or riding it.

Each vehicle's Tech Speed is based largely on the speed rating of the tires, the level of safety equipment used, and the division in which the vehicle is entered. (See **Divisional Requirements** for full details.) The Tech Speed for each vehicle will be determined at Tech Inspection. The Tech Speed will be written on the tech inspection sticker affixed to the vehicle.

In addition to (and separate from) the Tech Speed limit for the vehicle, there is also a License Speed limit, which is the highest speed that we allow for a given competitor, and is based on his/her experience level. This is independent of the vehicle Tech Speed. A competitor's speed license may be raised during an event if the competitor acquires the necessary experience. (see **Competitor Qualifications & Licensing**.)

The Event Director has full discretion with regard to the Tech Speed assigned to a vehicle, or the level of speed license issued to a competitor.

To recap: Each vehicle will have a Tech Speed limit, written on a Tech sticker affixed to the vehicle when tech inspection is completed. Each Driver or Rider will also have a License speed limit assigned to him or her at Registration, designated by a color coded wristband. **THE LOWER OF THESE TWO LIMITS becomes the actual speed limit for any given run.**

Exceeding your run speed limit may be cause for penalty or disqualification. (See: **Breakout Rule** and **Disqualification**).

While on any taxiway, there is a **50 MPH** speed limit (**30 MPH** for towed vehicles). In the pit, paddock, parking, and grid areas, there is a **10 MPH** speed limit. Violating these limits can result in disqualification. Radar enforcement may be used.

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## Sponsor Decals and Vehicle Numbers

MKM may require official sponsor's stickers to be placed on each vehicle. Vehicle numbers and identifying stickers will be provided for each vehicle and they must be displayed on the left side of the vehicle, usually on the side windows (for cars). These items must all be in place prior to Tech Inspection.

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## Standards of Conduct

All participants in an MKM event, including drivers, riders, team members, support team, and crew members, are expected to conduct themselves according to the highest standards of behavior and sportsmanship and in a manner that shall not be detrimental to the reputation of MKM, particularly in their relationship with other drivers/riders, officials, and event workers. Entrants shall, at all times, be responsible for the conduct of those accompanying them to an event such as crew, mechanics, friends and family. Abuse of any MKM officials, law enforcement officials, airfield personnel, volunteers or other official personnel will not be tolerated under any circumstances and could possibly result in civil or criminal legal action.

**Please remember that safety is everyone's responsibility. NO reckless or exhibition driving will be tolerated, on or off the track!**

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## **Format and Scoring**

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### **About classes, records and trophies:**

A full class structure has not yet been developed. Future plans include the establishment of a class structure for awards competition and speed records. For now, you will just enter into one of the general competition divisions shown below, and will run for fun, just to see how fast your car or bike can go. Since there are no actual classes, we won't be awarding any class trophies or keeping class records. We may issue trophies for top speed in each division, and various special awards, as we see fit.

All entrants will receive a small memento, plus a printed record of each scored run. You will also have the option of purchasing a speed certificate, suitable for framing, to proudly display the speed that you achieved. We will mail these out shortly after the event.

Don't forget about the optional Index Competition. It's a test of how accurately you can go through the speed trap. You can enter it for a small additional fee, and there will be trophies or plaques awarded for the Index winners.

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### **About Divisions:**

For this event, we are putting all entries into a few general competition divisions, rather than more tightly focused classes. By reading the descriptions below, you should be able to select which division is the right choice for you, on the entry form. Naturally, you and your vehicle must meet all requirements and pass tech inspection for the division you select. Your vehicle may be reclassified before or during the event if deemed necessary by the Event Director or the Tech Inspectors. If a vehicle is reclassified for any reason, a new tech sticker with the new Tech Speed MUST be affixed to the vehicle by an MKM Official, and Timing & Scoring must be notified, before any further runs are made.

If you are not sure about your safety equipment (especially tires), or any of the rules, requirements, or specifications, please contact the appropriate official with any questions (see addresses and phone numbers at the front of this book). We can help you select the proper division to enter for your particular situation.

**Description of Divisions:** *(This is **only an overview**; see **Divisional Requirements** for full official details)*  
*(For details of what constitutes safety equipment levels 1, 2, and 3, see **Safety Equipment Specifications** section.)*  
*(Please remember, tires with a speed rating lower than S are NOT allowed in this event.)*  
*(Power Adder means any added-on non-factory supercharger, turbocharger, or nitrous oxide system.)*

**Grand Touring:** For street or race cars, with up to one (non-OEM) power adder (with nitrous limited to a single "125 shot"). Grand Touring has tire-dependent speed limits ranging from 115 MPH with S rated tires, up to 165 MPH with Z or higher rated tires. Basic (Level 1) safety equipment is required.

**Super Sport:** For street or race cars that expect to exceed 165 MPH. Up to two power adders allowed. Super Sport allows speeds up to 205 MPH with (Y) rated tires, 190 MPH with Y rated tires, or 175 MPH with Z or W rated tires, which are the minimum tire standard for the division. Full Level 2 safety equipment is required, including a full face auto racing helmet, racing suit/shoes/gloves, roll bar, racing harnesses and fire extinguisher.

**S4** (stands for "Showroom Stock Super Sport"; formerly called Auto Z): This division is intended for, and limited to, exotic high-performance street-legal cars where the installation of a roll bar would damage and/or devalue a possibly rare and expensive vehicle. We offer a trade-off - if the vehicle is street legal, licensed, and insured, 1990 or newer, by a US certified manufacturer, legally sold new in the US, came originally with at least Z rated tires, and is **TOTALLY STOCK** - then we will waive the normal Level 2 roll bar and harness requirements of Super Sport. (Convertibles must have some form of OEM rollover protection - see the General Requirements.) Tires and wheels may be changed but must be the **exact same size** and have **at least the same speed and load ratings** as the factory original tires. Tech Speed limits are either 175 MPH for "plain Z" or W rated tires, and 190 MPH for Y or (Y) rated tires. The rest of the Level 2 safety gear is still required, the same as for Super Sport. We are defining "totally stock" **VERY STRICTLY** here. Almost any modification that is beyond cosmetic will disqualify you for this division. See the full Divisional Requirements for what is and is not allowed. MKM has the final say as to whether a car will be allowed into S4. Rarity, value, and high performance are some of the factors that we will take into consideration.

**Unlimited:** For street or race cars, with up to three power adders allowed. Extensive (Level 3) safety equipment, including a roll cage, and a minimum of (Y) (in parentheses) rated tires, shaved to 6/32 inch, are required. A Sportsman license or higher is required, no "Basic" license holders permitted. This division is for any car that expects to exceed 205 MPH. Speed limits are 220 MPH, 260 MPH, or Unlimited, based on tire selection and the use of a parachute.

**Land Speed Auto (LSA):** A special division for cars used in Land Speed racing. Vehicle must have a current SCTA log book (filled out, please!) and matching chassis sticker, must meet all applicable SCTA technical requirements, and must have passed a recent tech inspection by SCTA/BNI or USFRA. (Note: SCTA log books/stickers will not be available at MKM events.) Drivers must have

all SCTA-required equipment, just as if they were running in a normal Land Speed event. A Technical Inspection will be done at the event, using the SCTA/BNI Technical Inspection Form. Streamliner classes and vehicles requiring assisted or push starts are not allowed. Vehicle speed limits (Tech Speeds) are generally based on the tire speed limitations imposed in the SCTA rule book. LSA Cars running over 175 MPH must have a parachute, as per usual SCTA practice. See Appendix D for full details.

**MOTORCYCLE Street:** For normal street-licensed bikes. Allows speeds up to 165 MPH with ZR tires, with lower limits for lower tire ratings. (A minimum tire rating of S is required.) Our basic bike safety equipment (full face helmet, full zip-together leather suit, gloves, boots, some minor bike modifications) is required.

**MOTORCYCLE Modified:** (Incorporates former Sport and Unlimited) For motorcycles (street or race) with up to two power adders. Similar safety requirements to Street, except that you can't use a clamshell helmet. Allows up to unlimited speeds with W or higher rated tires, with lower limits for lower tire ratings. (A minimum tire rating of S is required.) A Sportsman license or higher is required if two power adders are used.

**Land Speed Motorcycle (LSM):** A special division for motorcycles and sidecars used in Land Speed racing. The vehicle must have a current SCTA log book (filled out, please!) and matching chassis sticker, must meet all applicable SCTA technical requirements, and must have passed a recent tech inspection by SCTA/BNI or USFRA. (Note: SCTA log books/stickers will not be available at MKM events.) Riders must have all SCTA-required equipment, just as if they were running in a normal Land Speed event. A Technical Inspection will be done at the event, using the SCTA/BNI Technical Inspection Form. Full streamliners and vehicles requiring assisted or push starts are not allowed. Land Speed Sidecars are allowed and are exempt from the MKM two-wheel limit on motorcycles. Vehicle speed limits (Tech Speeds) will be generally based on the tire speed limitations imposed in the SCTA rule book. See Appendix D for full details.

In all cases, the experience level of the driver/rider determines the speed they are licensed for, **independent of the vehicle they are driving or riding**. For example, if your car has an assigned Tech Speed of 205, but you yourself only have a Basic license for 150, then you cannot exceed 150 even though the car's tech sticker says 205. (See **Competitor Qualifications & Licensing**.)

## Index Challenge Competition: *(optional)*

The optional **Index Challenge Competition** (for participants who have paid an additional fee) will be determined by how closely any Index participant comes, over or under, to one of the exact Index Speeds listed here, on any of their scored runs:

100, 110, 120, 130, 140, 150, 160, 170, 180 MPH

A 1<sup>st</sup> place trophy will be awarded for each Index Speed that has an entry. If four or more people enter a given index, a 2<sup>nd</sup> place trophy will be awarded. If seven or more people enter a given index, a 3<sup>rd</sup> place trophy will be awarded.

This is a combined competition for all entrants across all divisions and classifications. If an entrant desires to participate in this optional competition, he or she must specify on the Entry Form, prior to the event, which Index Speed he/she will be aiming for, and pay the additional fee required. Runs that result in a speed "breakout" (by any amount) will not count for the Index Challenge. To qualify for an Index trophy, a run must be within 5 MPH of the target Index Speed. Limit one Index entry and one Index trophy per person.

It should be obvious that the selected Index Speed needs to be equal to or lower than any Speed Limit that applies; however, making the correct choice is up to the entrant. If circumstances at the event dictate an unanticipated change in speed limit for an entrant, that entrant's Index entry may also be changed if necessary.

## Speed Violations – Breakout Rule - Three Strikes Rule

- 1) Run speed limits in this event all allow a 5 MPH "tolerance" or "pad" without penalty. Runs that are over the speed limit by 5 MPH or less are not considered "breakouts" and will still count.
- 2) Exceeding the applicable speed limit on a given run by more than 5 MPH ("breaking out") will cause that run to be discarded. It will not be scored or listed in the results, and no official speed slip or documentation will be issued.
- 3) Exceeding the applicable speed limit on a given run by more than 10 MPH will incur the penalties above, and also cause an **official warning** to be issued.
- 4) If a Driver/Rider receives **three** official warnings at one event with the same vehicle, that Driver/Rider will be **disqualified** from any further runs with that vehicle for the remainder of the event, and may be disqualified from the entire event.
- 5) A flagrantly high speed, as determined by the Event Director, may cause immediate Event Disqualification of the driver/rider.
- 6) Runs that break out, but not by enough to cause an official warning as defined in rule 3 above, will still count toward licensing upgrade requirements.

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## **Technical Safety Inspection**

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All vehicles and participants must undergo a Technical Safety Inspection ("Tech") to ensure compliance with the Rules, Requirements and Specifications, and to have the vehicle's Tech Speed assigned. Each driver/rider is responsible for the safety and speed-worthiness of his/her vehicle. No equipment shall be assumed "approved" because it went through Tech at other racing events, because it passed Tech previously at an MKM event, or because this rulebook does not specifically exclude it. All vehicles must be maintained in a safe condition at all times. Passing Tech Inspection does not relieve the driver/rider of any liability.

- A. You must come to Technical Inspection with your vehicle 100% ready to run in full compliance with the personal and vehicle equipment required for your division, including, but not limited to, the following:
  - 1. All safety equipment installed. Any required event sponsor decals affixed.
  - 2. All drivers/riders for the vehicle must be present, and must be prepared to don any personal safety equipment required and belt in as they would during the event, if requested.
  - 3. All camera mounts with cameras installed.
- B. Any vehicle not passing inspection will have to correct the deficiency or make necessary repairs, and be reinspected prior to running in the event.
- C. No modifications are permitted after the final inspection unless coordinated with the Event Director and Chief Technical Inspector. This includes any change in vehicle condition after the vehicle passes Tech, due to breakdowns or failures, flat or damaged tires, or any other reason.
- D. At the discretion of the Event Director, or his/her appointed officials, vehicles which do not meet minimum technical inspection standards in a particular division may be transferred to an appropriate division for which they do qualify. There will be no adjustment of fees in such cases.
- E. Any vehicle not in compliance with the Rules, Requirements, and Specifications will not be allowed to enter the event.

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## **Competitor Qualifications & Licensing**

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Each competitor must have sufficient experience (or sufficient equivalent qualifications) to be allowed to run above certain speed thresholds. The experience/licensing levels are:

**Basic** – our standard license. The minimum qualification for a Basic license is a valid and current US state, Canadian provincial, military or other approved driver's license as stated previously. Basic license holders are limited to 150 MPH.

**Sportsman** – the minimum qualification for a Sportsman license is a Basic license or equivalent, plus either sufficient acceptable prior experience, or successful completion of one run with a trap speed of at least 140 MPH. Sportsman license holders are limited to 205 MPH.

**Unlimited** – Our top level license. The competitor must demonstrate to MKM officials that he or she is sufficiently qualified to run with no speed limits. Graduation to an Unlimited license is not automatic and must be individually applied for. It generally requires a Sportsman license or equivalent, plus considerable high speed driving experience and/or two or more successful runs at more than 185 MPH. In cases where the use of a parachute is anticipated, competency must be demonstrated via either documented prior experience or an observed high speed qualifying run with deployment. All Unlimited license holders must be 21 years of age or older. The Event Director has the final say as to who does or does not receive an Unlimited license.

All Land Speed entrants, even though they must have SCTA competition licenses, still require MKM speed licensing. Certain current (two years old or less) SCTA competition license holders will be granted automatic MKM Licensing as follows: UNL/AA/A = MKM Unlimited; B/C = MKM Sportsman. (Since all entrants qualify for MKM Basic licenses, automatic MKM licensing for SCTA D/E licensees is unnecessary.) SCTA license holders should note the level of their license on the entry form. Since SCTA does not have separate auto and motorcycle licensing, the type of MKM license(s) granted (motorcycle and/or auto) will be determined by the racer's experience, **which must be documented for MKM to inspect**. All motorcycle licensees must have a motorcycle endorsement on their driver's license. These automatic license grants are subject to modification or denial by the Event Director if he deems it necessary.

In addition to the above, prior experience at non-MKM or non-shootout events may be acceptable for MKM speed licensing purposes. The Event Director will determine the applicability of any such experience. Generally speaking, equivalent-speed experience in Land Speed Racing, other sanctioned Mile events, sanctioned Drag Racing, and Open Road Racing will be favorably considered. Other forms of high speed competition, and other competition licenses, may also be considered. The applicant must provide printed documentation of the licenses and/or experience that he or she wishes to have considered. Decisions of the Event Director regarding applicability are final.

Licenses and experience requirements are separate for cars and motorcycles. For example, having an Unlimited motorcycle license does not entitle you to drive a car at unlimited speeds, and vice versa. It is certainly possible for a competitor to hold both types.

Each competitor will be issued a color-coded wristband to denote their license type and level. This will have to be shown to officials to gain access to the starting line. A competitor's license may be upgraded during an event if the necessary experience level is attained. When this happens, the competitor will need to take the slip showing their qualifying speed to Registration for license upgrade processing and a change of wristband.

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## **Rules of Conduct**

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**THE FOLLOWING RULES ARE CRITICAL TO YOUR SAFETY AND THE SAFETY OF OTHERS. They must be strictly adhered to. Please remember these rules and help our event be successful!**

- 1. OBEY ALL OFFICIALS.** They are there to protect you, the event, and the public. This includes all law enforcement officers, pre-grid and starting line workers, finish line officials, traffic control officials, the Event Director, and Emergency Response personnel. Abuse of ANY official will NOT be tolerated.
- 2. DRIVE SAFELY.** We do our utmost to make sure the track is clear, but you are NEVER relieved of your responsibility and obligation to use good judgment while driving. Never make a sudden maneuver unless absolutely necessary. Look FAR AHEAD down the track. And don't exceed your Speed Limit!
- 3. NO INTOXICANTS before or during the event. NO DRINKING** of alcohol, and **NO DRUGS**, legal or otherwise, that might impair your driving ability. If you can't abide by this obvious rule, we don't want you here. **NO ALCOHOLIC BEVERAGES** are allowed anywhere on the premises at this event.
- 4. NO HIGH SPEED DRIVING ON THE TAXIWAYS OR IN THE PITS.** Keep it slow and safe. Obey all traffic control personnel. There is a 50 MPH limit on all taxiways (30 MPH for towed vehicles), and a 10 MPH limit in the pits and paddock area (a crawl). Don't exceed these limits!
- 5. NO SHOWING OFF.** Exhibition driving, stunts, drifts, burnouts, wheelies, stoppies, etc., have no place in this competition and are prohibited. Don't do it!
- 6. ENTER AND LEAVE THE EVENT ONLY THROUGH THE OFFICIAL GATE.** If you wander off into some other part of the airfield, or try to sneak in or out some other way, you could be in BIG trouble, possibly even with law enforcement. Never stray from the officially marked routes and areas.

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## **Event Disqualification**

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**The Event Director may disqualify you from the event:**

1. If you violate the Rules of Conduct, above.
2. If you receive three official speed warnings. See "Three Strikes Rule".
3. If you exceed any applicable Speed Limit in an excessive or reckless manner, in the opinion of event officials. In addition to immediate disqualification, you may be suspended for one year or banned from ever participating in a future MKM event.
4. If you engage in reckless or dangerous driving prior to or during the event, either on or off the track.
5. If you fail to notify the Event Director or Chief Technical Inspector of **any** change in vehicle condition **after the vehicle passes Tech Inspection**. This includes configuration changes, breakdowns/equipment failures, and flat or damaged tires.

6. If it is determined that you have falsified your entry form, deceived Event Officials and/or Tech Inspectors, or cheated in any way.
7. If you are observed using intoxicants (alcohol or drugs) immediately before or during the event, or you appear to be intoxicated or otherwise unfit to drive. MKM reserves the right to ask any driver or rider to submit to a breathalyzer test. If the driver/rider refuses, or if any alcohol level is shown on the test, event disqualification is automatic.
8. For any other reason that the Event Director deems sufficient.

Decisions of the Event Director are final. If you are disqualified from the event, your runs will be stricken from the official results. No refunds will be issued. Any participant disqualified from an MKM event for any reason may require re-qualification prior to participating in future events, and may have their License demoted for one or more future events.

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## Equipment Requirements

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**NOTE: Vehicles in Land Speed divisions (LSA and LSM) are exempt from all rules, requirements and specifications after this point in the book, except for Appendix D. Current SCTA rules and Appendix D will apply instead.**

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### GENERAL REQUIREMENTS FOR ALL AUTOMOBILES

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*Note: The term "car" as used in these rules, includes any eligible 4-wheeled vehicle.*

- A. Vehicles entered in Automobile divisions must be 4-wheeled autos, SUVs, or pickups. Open-wheel and open-cockpit vehicles are permitted, but please note that some open-wheel or open-cockpit race cars will be unable to meet the safety standards for Unlimited due to the lack of a roll cage. Vehicles must use a single internal-combustion reciprocating or rotary (Wankel) engine, or an Electric or Gas-Electric Hybrid drive system, and be wheel-driven.
- B. All cars must be in generally good condition and in an excellent state of repair for running at high speed, with no apparent damage or mechanical defects, obvious missing bodywork, loose parts, etc.; and no fluid leaks of any kind.
- C. All cars must have 4 wheel hydraulic brakes with all brakes in good operating condition. 4 wheel disc brakes are greatly preferred, and mandatory in some divisions, unless a waiver is granted.
- D. All cars must have a functional suspension and shock absorber for each wheel. No part of the suspension or chassis is permitted to hang below the bottom of the wheel rim.
- E. A minimum track width of 48 inches front and rear is required, measured between the tire centerlines. The minimum wheelbase is 80 inches.
- F. These and similar vehicles are generally prohibited: Dragsters or Funny Cars; karts; ATVs or utes; streamliners; off-road or raised vehicles; dual rear wheel trucks; jet or turbine cars; 3-wheeled vehicles; vehicles that weigh or have a GVWR over 5 tons; hot rods with narrow or motorcycle-type front tires.
- G. **Convertibles:** We define the term "convertible" to refer to any car with a removable or retractable soft top, a removable or retractable hardtop, or no top at all. "Targa" or "T-Top" car types are generally not considered convertibles. In order to enter this event, convertibles, and other cars without a metal roof structure, **must have some kind of additional rollover protection behind the driver**; either an OEM fixed roll bar, an OEM pop-up roll bar, or an added-on Appendix B roll bar or Appendix C roll cage. S4 Division cars must remain as originally manufactured. (We are aware that this rule means that some convertibles will not be allowed to run in this event.)
- H. Convertibles must run with the top up if possible. Sun roofs and moon roofs must be closed. T-tops and Targa roof panels must be in place. All cars must run with the windows up if possible. If no side window is present, a window net or arm restraints must be used. Use of both is recommended.
- I. No loose items are permitted in the passenger compartment of the vehicle. If the vehicle has airbags, nothing may be mounted or positioned in front of the air bags unless they have been disabled. (S4 Division cars cannot have their air bags disabled unless copies of your submitted NHTSA Form 603, and the subsequent approval letter, are provided.)
- J. If a vehicle is equipped with a directly-linked mechanical or hydraulic throttle mechanism (meaning, not drive-by-wire) that is not the OEM stock design, two throttle return springs are required.

- K. Batteries must be securely mounted and bolted down. Flooded-type (acid filled) batteries mounted in the trunk, or in any non-OEM location, must be fully enclosed in a box made for that purpose. This box must vent to the outside. The box and vent are not needed if a non-venting non-liquid battery (AGM/Optima type) is used.

Any exception to these rules requires special permission. Submit a request to MKM well in advance of the event.

**Special note re: engine “diaper”:** We encourage entrants with heavily modified engines (particularly those running nitrous) to fit a racing-approved engine oil retention device (diaper), preferably ballistic-lined, to their vehicles. These are available from drag-racing suppliers. Dumping oil and broken engine parts onto the track is heavily frowned upon, may cause loss of vehicle control, and will cause the event to be interrupted, possibly making you a very unpopular person!

## Divisional Requirements - Automobiles

### Grand Touring Division (GT) Highest speed: limited to 165 MPH

The following are the minimum requirements for the Auto Grand Touring Division:

- A. **Licensing and Speeds:** All drivers must hold a current, valid MKM Auto License. (See: **Competitor Qualifications & Licensing**.) A driver must hold a Sportsman or higher License in order to exceed 150 MPH. The Speed Limit for any run in this division will be the lesser of the driver's License Speed and the vehicle's Tech Speed, with a maximum of 165 MPH.
- B. **Fuel:** Any allowable pump or race gasoline, E85, or diesel. (See: **Fuel and Fuel Equipment**.)
- C. **Power Adders:** One (non-OEM) power adder is allowed. Nitrous is limited to a “125 shot” or less. (See: **Fuel and Fuel Equipment**.)
- D. **Fire Suppression, Restraints, Helmet, Clothing, and Rollover Protection: Level 1 required.** Level 2 or higher recommended. (See: **Safety Equipment Specifications**.)
- E. **Tires and Wheels:** DOT S rated tires are the minimum standard and are approved for speeds up to 115 MPH. DOT T or U rated tires are approved for speeds up to 125 MPH. DOT H rated tires are approved for speeds up to 135 MPH. DOT V rated tires are approved for speeds up to 155 MPH. DOT Z or higher rated tires are approved for speeds up to the division limit of 165 MPH. DOT W, Y and (Y) (parentheses) suffix tires are highly recommended. Wheels must be of an appropriate width for the tire, with a minimum width of 6 inches (unless OEM is less). The rules in the **General Wheel and Tire Requirements** section, including those about tire load ratings, tire rubbing, tire age, and minimum inflation pressure, must be observed.
- F. **Windows:** The car must run with the windows up if possible. If this is not possible, or if no windows exist, either NASCAR style approved window netting, or arm restraints, are required. Use of both is highly recommended.

### Super Sport Division (SS) Highest speed: limited to 205 MPH

The following are the minimum requirements for the Auto Super Sport Division:

- A. **Licensing and Speeds:** All drivers must hold a current, valid MKM Auto License. (See: **Competitor Qualifications & Licensing**.) A driver must hold a Sportsman or higher license in order to exceed 150 MPH. The Speed Limit for any run in this division will be the lesser of the driver's License Speed and the vehicle's Tech Speed, with a maximum of 205 MPH.
- B. **Drivetrain and Chassis:** Driveshaft loop required if applicable. For solid rear axle vehicles, positive-retention drive axles are highly recommended. (i.e., GM or similar C-clip-retained axles are strongly discouraged.) Vehicle must have 4 wheel disc brakes with front brakes of at least 10 inches in diameter unless a parachute is used or a waiver is granted by MKM.
- C. **Fuel:** Any allowable pump or race gasoline, E85, or diesel. (See: **Fuel and Fuel Equipment**.)
- D. **Power Adders:** Two power adders are allowed. (See: **Fuel and Fuel Equipment**.)
- E. **Fire Suppression, Restraints, Helmet/helmet support, Clothing, and Rollover Protection: Level 2 required.** Level 3 recommended. (See: **Safety Equipment Specifications**.)

- F. **Tires and wheels:** DOT Z rated tires, or Z rated tires with W suffix, are the minimum standard and are approved for speeds up to 175 MPH. DOT Z rated tires with Y suffix are approved for speeds up to 190 MPH. DOT Z rated tires with (Y) (parentheses) suffix, or DOT racing radials appearing on the official MKM list, are recommended and are approved up to the division limit of 205 MPH. The rules in the **General Wheel and Tire Requirements** section, including those about tire load ratings, tire rubbing, tire age, and minimum inflation pressure, must be observed. Wheels must be of an appropriate width for the tire, with a minimum width of 6 inches (unless OEM). Wheels over 18 inches in diameter must be approved for racing. (See: **General Wheel and Tire Requirements**.)
- G. **Window Net:** NASCAR style approved window netting is recommended, and required if no window covering (glass or lexan) exists.
- H. **Seat:** A proper racing seat is highly recommended **and may be required in certain cars**. Molded plastic seats are not allowed.
- I. **Steering Wheel:** A quick release steering wheel system is recommended.

## S4 Division (S4)

### Highest speed: limited to 190 MPH

“S4” is short for “Showroom Stock Super Sport”. The following are the requirements for the Auto S4 Division:

(Note: as used here, “OEM” means “factory original equipment”.)

- A. **Licensing and Speeds:** All drivers in this division must hold a current, valid MKM Auto License. (See: **Competitor Qualifications & Licensing**.) A driver must hold a Sportsman or higher License in order to exceed 150 MPH. The Speed Limit for any run in this division will be the lesser of the driver’s License Speed and the vehicle’s Tech Speed, with a maximum of 190 MPH.
- B. **Intent:** This division is intended for unmodified rare and/or valuable high performance cars that might be damaged or devalued by the installation of a roll bar and/or harnesses. It is not intended as a general purpose showroom-stock class.
- C. **Street legal:** Cars in this division must be currently registered and licensed for street use in the US or Canada, and must have a current proof-of-insurance card.
- D. **Showroom Stock:** Vehicles in this division must be model year 1990 or later, produced by a USDOT certified manufacturer for the US market, meeting US safety and emissions requirements, and legally sold as new in the US or Canada. (Sorry, no grey-market imports or kit cars in this division.) Fuel injection is required; vehicles with carburetors are not eligible. **No modifications are permitted** except as stated in the next section. The engine, drivetrain and suspension shall remain factory stock in all respects except as stated in the next section. The stock PCM (ECU, ECM, etc.) or computer shall be unchanged from its OEM programming except for factory-issued updates. (**Aftermarket tune-ups, tuning devices and reprogrammers are not permitted.**) No non-OEM computers, chips, ignition systems, fuel injectors, or other devices, electronic or otherwise, may be added or substituted. Fuel pressure must be within OEM specs. Fuel injectors and wiring must be unaltered from OEM. Sensors and sensor wiring may not be altered, bypassed, or moved. The factory stock speed limiter, if it exists, cannot be defeated, bypassed or altered. No add-on power adders (such as nitrous oxide) are allowed. Ignition timing, cam timing, cam specs, and rocker arm ratio cannot be altered from stock. The stock factory type spark plugs and wires must be used. All emission controls, including the catalytic converter(s), must be installed and operational. All engine accessory drive belts must be in place at the proper tension and operational. **All drive pulleys must remain at the stock size.** The battery must be OEM size and cannot be relocated from the stock position. The car cannot have parts and pieces “stripped out” to shed weight. The suspension must remain stock, and the stock ride height cannot be changed.
- E. **Allowed Modifications:** Aftermarket air filter elements, e.g. K&N, are permitted if they are the OEM size in the unmodified OEM housing. Aftermarket “cat-back” exhaust systems are permitted if they are street-legal with effective muffler(s) and exactly replace the stock system in the stock location using the stock mountings. Different shock absorbers and brake pads/linings (but not rotors) may be installed but they must be OEM size and fitment. Synthetic lubricants and fluids, and aftermarket exact-replacement service parts, are allowed if they meet OEM specs. Cosmetic-only changes are allowed. That means that changes like paint, stripes, cosmetically different grills and/or lights, window tint, interior upgrades (but not different seats or steering wheel), added gauges, stereos, etc. are acceptable. Anything, other than the above exceptions, that has any effect on the car’s performance or safety, must remain factory stock. Specifically, oversize wheels and tires, and aerodynamic or other body modifications (wings, spoilers, air dams, body kits, ground effects, scoops, etc.) will make the car ineligible for S4 Division. It doesn’t make any difference if the modification in question was on the car when you bought it; if it isn’t or wasn’t a factory option, it’s not eligible, and you will have to run in a different division. *Note: many carmakers sell factory options on new cars that are dealer-installed. These manufacturer-approved options are generally*

allowed in S4 Division, but if they are anything more than cosmetic, the entrant should provide documentation of their official-option status, such as sales brochures.

- F. **Fuel:** Unleaded street-legal pump gasoline, 100 Pump Octane (R+M/2) maximum, E85, or diesel fuel. (See: **Fuel and Fuel Equipment**.)
- G. **Helmet/helmet support, Clothing and Fire suppression:** **Level 2** required. (Installing the extinguisher is an allowed modification.)
- H. **Restraints:** OEM, or exact replacement, 3-point seat/shoulder belts in new or like-new condition, with no frays or excessive wear are **required**. (Please note: The standard 3-point belts are the **only acceptable restraints in S4 Division**. The only exceptions are vehicles that have factory-provided hard points expressly intended for mounting racing harnesses. These vehicles may install racing harnesses per Appendix A. If racing harnesses are installed, arm restraints are also required.) OEM belts more than 10 years old should be replaced with new ones. Aftermarket belts, except exact replacements, cannot be used. **4-point 2-inch harnesses (“show belts” or “tuner belts”) are not acceptable for use, regardless of DOT rating, unless they are OEM for the vehicle.** All air-bag or other supplemental restraint systems that came on the vehicle must still be installed and operational. Racing-approved head and neck restraint systems that are self-contained (i.e., that do not rely on the seat belts for anchoring) are highly recommended.
- I. **Rollover protection:** As built by the vehicle manufacturer. Convertibles (or cars without a metal roof structure) must have some kind of factory OEM physical roll over protection behind the driver, such as fixed or pop-up roll bars. Convertibles without this cannot run; sorry. Convertibles must run with the top up if possible. See the convertible rule in the **General Requirements** section.
- J. **Tires and Wheels:** The OEM tire speed rating **must be Z or higher**. The original DOT-required wheel/tire specification sticker, usually on the door jamb, glove box door, or fuel filler door, **must be present**. Tires and wheels may be changed but the tires must be DOT radials, of the **exact original size**, on original size and offset wheels, with original (or higher) load and speed ratings. Since these ratings are usually not on the DOT sticker, **it is the entrant’s responsibility to document the car’s original tire load and speed ratings, and to explain any wheel-tire sizes that don’t agree with the DOT sticker.** Being dealer-installed does not exempt non-factory-approved wheel-tire sizes. The rules in the **General Wheel and Tire Requirements** section, including those about tire rubbing, tire age, and minimum inflation pressure, must be observed. Run-flat tires may be switched out (in pairs) for normal tires, and vice versa.
- K. **Tech Speeds:** Cars with tires rated only Z, or tires rated Z with a W suffix, will have a Tech Speed of 175 MPH. Cars with tires rated Z with a Y or (Y) suffix will have a Tech Speed of 190 MPH. If an S4 Division car “breaks out”, not only will the run not count, but if we find that an OEM speed limiter has been tampered with, both the driver and the car may be disqualified from the event.
- L. **Eligibility:** The determination of whether or not a vehicle is eligible for S4 Division will be made by the Chief of Tech and the Event Director. Their decision is final. If you think that something on your car might be in a “grey area”, you should discuss it with MKM, well prior to the event. MKM reserves the right to refuse or reclassify any entry in the S4 division if we feel that it doesn’t meet the intent of the division.

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## Unlimited Division (U)

### Speeds: up to No Limit, equipment-dependent

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The following are the minimum requirements for the Auto Unlimited Division:

- A. **Licensing and Speeds:** All drivers must hold a current, valid MKM Auto license of Sportsman level or higher. A driver must hold an Unlimited license in order to exceed 205 MPH. (See: **Competitor Qualifications & Licensing**.) Basic license holders cannot drive in this division. The speed limit for any run in this division is the lesser of the driver’s License Speed and the car’s Tech Speed.
- B. **Drivetrain and Chassis:** Driveshaft loop required if applicable. For solid rear axle vehicles, positive-retention drive axles are highly recommended. (i.e., GM or similar C-clip-retained axles are strongly discouraged.) Vehicle must have 4 wheel disc brakes with front brakes of at least 10 inches in diameter unless a parachute is used or a waiver is granted by MKM.
- C. **Fuel:** Any allowable pump or race gasoline, E85, or diesel. Other fuels require special MKM pre-approval. (See: **Fuel and Fuel Equipment**.)
- D. **Power Adders:** Three power adders allowed, with a limit of two stages of Nitrous. (See: **Fuel and Fuel Equipment**.)
- E. **Fire Suppression, Restraints, Helmet/helmet support, Clothing, Rollover Protection, Fuel Tank, and Seat:** **Level 3** required. (See: **Safety Equipment Specifications**.)

- F. **Window Net:** NASCAR style approved window netting is recommended, and required if no window covering (glass or lexan) exists.
- G. **Steering Wheel:** A quick-release steering wheel, padded steering hub, and collapsible steering column are highly recommended.
- H. **Tires and wheels:** DOT Z rated with (Y) (parentheses) suffix tires (if shaved), or DOT racing radials appearing on the official MKM list, are the minimum standard in this division and are approved for speeds up to **220 MPH**. **The maximum permitted tread depth for all tires in this division is 6/32 of an inch.** All tire shaving must be carefully done using the proper equipment. Initial heat-cycling with a 24-48 hour cool-off, prior to first use, is highly recommended for all of these tires. For speeds up to 260 MPH, high-speed non-DOT true racing tires such as NASCAR Speedway tires or Road Racing slicks, if properly sized and fitted, are acceptable but must be pre-approved by MKM. (If NASCAR tires are used, safety inner liners are highly recommended.) Other appropriate slick paved-track racing tires (except drag racing tires) may be acceptable but must be pre-approved by MKM. Speeds higher than 260 MPH require special certified LSR tires or equivalent and MKM pre-approval. **In all cases, if speeds greater than 220 MPH are expected, you must consult with MKM for tire pre-approval,** well prior to the event. The rules in the **General Wheel and Tire Requirements** section, including those about tire load ratings, tire rubbing, tire age, and minimum inflation pressure, must be observed. Wheels must be of an appropriate width for the tire, with a minimum width of 6 inches. **All wheels must be approved for racing speeds.** (See: **General Wheel and Tire Requirements**.) If you have any doubts about your tires or wheels, please call us.
- I. **Parachute:** A parachute braking system meeting established drag-racing or land-speed specifications, for the weight of the car at the expected speed, is recommended for all Unlimited cars, and **required** for any car that expects to run faster than **220 MPH** unless an exemption is granted; see below. The system must be manufactured by a recognized drag racing or Land Speed racing supplier, and installed according to their specifications. The parachute tether(s) should be at least 75 feet long, to help avoid lifting the rear wheels off the track. Parachutes must be mounted and anchored to a dedicated steel mounting structure/bracket, which in turn is firmly mounted to the car's frame structure and/or roll cage. (In other words, you can't just attach a chute to the car body or sheet metal. Remember that in some cases, the bracket might need to withstand a load of 2-4 times the weight of the car.) If dual parachutes are used, each tether must be anchored separately. A spring- or gas-powered launch system for deployment is highly recommended. A manual mechanical parachute release lever or control must be installed within easy reach of the driver when he/she is strapped in. This is required even if an automatic or electric release system is also installed. Parachute pack(s) should be of fire-resistant material. Parachute canopy, shroud lines and tether must be in excellent condition with no rips, fraying or broken lines. An exemption to the requirement for a parachute may be granted, but you must contact MKM about it, well in advance. (Usually cars that have excellent, large 4-wheel disc brakes will qualify for this exemption. Others may or may not.) No exemption is possible for any car exceeding **260 MPH**.

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## Safety Equipment Specifications – Automobiles

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### Level 1 (Basic) Auto Safety Equipment requirements:

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**Fire suppression:** A 2.5 lb minimum, automotive BC fire extinguisher, with a secure quick-release mounting bracket **made of metal**, must be mounted within easy reach of the driver.

**Helmet/helmet support:** An open or full-face auto racing helmet meeting Snell SA2000 (or later) or SFI 31.1 or 31.2 ratings, in good condition with shatterproof eye protection, is the minimum standard except as stated below. (Shatterproof eyeglasses will be considered the minimum eye protection standard). A Nomex or Carbon-X head sock (balaclava) is highly recommended and may be required for drivers with long hair or facial hair. **If such a head sock is worn**, an open or full-face **motorcycle helmet** meeting our current standards (see Motorcycle rules for list) is an acceptable substitute; however, **helmets rated only DOT are not acceptable**. Use of a full-face helmet with shatterproof face shield is highly recommended, and **required** if the vehicle has no windshield. Partial-coverage, "novelty", or "shorty" helmets are not allowed. Padded helmet supports ("horse collar" type) are recommended. **A racing-approved head and neck restraint system is highly recommended** but note that some types of these require that a safety harness also be installed. **NOTE: Beginning next year (2011) the minimum acceptable Snell helmet standards will be SA2005 or M2005.**

**Clothing:** Non-synthetic street clothing (cotton, wool, leather etc.), including underwear and socks, covering torso, arms, and legs; plus leather gloves and leather topped shoes without holes, is the minimum standard. Golf gloves and athletic shoes with holes are not considered appropriate. Cordura clothing is not permitted. A treated cotton (Proban, Pyrovatex or similar) driving suit is acceptable for Level 1 but not recommended. Nomex or Carbon-X underwear and socks are highly recommended. Level 2 or higher clothing is highly recommended.

**Restraints:** A factory stock or equivalent 3 point seat/shoulder belt, in good condition, with no frays or excessive wear, is the minimum standard. Factory OEM belts should be replaced if over 10 years old. **4-point 2-inch "street" harnesses ("show belts" or "tuner belts") are not acceptable for use, even if DOT rated, unless they are OEM for the vehicle.** Racing safety harnesses are recommended if feasible. If such harnesses are installed, they must meet the requirements in Appendix A, and arm restraints must also be used. (See Appendix A: **Harness and Restraint System Requirements.**)

**Rollover protection:** An Appendix B roll bar is recommended. Convertibles, or vehicles without a metal roof structure, require either an Appendix B roll bar or a factory OEM rollover structure behind the driver. See the convertible rule in the General Requirements section for details.

## Level 2 Auto Safety Equipment requirements:

**Fire suppression:** A 2.5 lb minimum, automotive BC fire extinguisher, with a secure quick-release mounting bracket **made of metal**, must be mounted within easy reach of the driver. (This is the same as Level 1.)

**Helmet/helmet support:** A full face auto racing helmet with shatterproof face shield, meeting Snell SA2000 (or later) or SFI 31.2 ratings, is required. **Motorcycle and DOT helmets are not permitted for Level 2.** A Nomex or Carbon-X head sock (balaclava) is required for drivers with long hair (or facial hair, except for small, trimmed mustaches) and recommended for everyone. A padded helmet support ("horse collar") is the minimum standard for Level 2 and a racing-approved head and neck restraint system is highly recommended. **NOTE: Beginning next year (2011) the minimum acceptable Snell helmet standard will be SA2005.**

**Clothing:** An SFI-rated Nomex or Carbon-X fire-resistant driving suit, plus single-layer Nomex or Carbon-X lined racing gloves, Nomex or Carbon-X socks and Nomex or Carbon-X lined racing shoes are **required**. A single layer suit meeting SFI 3-2A/1 specifications worn with Nomex or Carbon-X underwear, or alternatively a two layer suit rated SFI 3-2A/3, will be considered the minimum Level 2 standard. A suit rated SFI 3-2A/5 is recommended, and a suit rated SFI 3-2A/10 or higher is highly recommended. A one-piece suit is recommended. Treated cotton suits of any kind, e.g. Proban or Pyrovatex, **will not be allowed for Level 2, regardless of any rating they may carry.** Cordura clothing is not permitted. Wearing of synthetic clothing under the driving suit is not recommended.

**Restraints:** A competition-rated 5, 6, or 7-point **racin**g harness in accordance with Appendix A is **mandatory**. The mounting of the harness must conform to the Appendix A requirements, especially the shoulder harness mounting. This will be thoroughly checked at all Tech Inspections. **Y-type or one-piece V-type shoulder harnesses are not allowed. 4-point 2-inch "street" harnesses ("show belts" or "tuner belts") are not acceptable for use** even if a crotch strap is added. Racing-approved **arm restraints are mandatory.** (See Appendix A: **Harness and Restraint System Requirements** for full details.)

**Rollover Protection:** A competition-approved roll bar (Appendix B) is **required**. Certain vehicles with built in OEM roll over structures (for example, 1984 and later non-convertible Corvettes) **may** meet the minimum roll bar standard for Level 2. Contact MKM or the Chief Technical Inspector to inquire about your particular vehicle. It is **highly recommended** that an additional roll bar be added to those vehicles with approved OEM roll over structures. A competition-approved roll cage (Appendix C) is highly recommended.

## Level 3 Auto Safety Equipment requirements:

**Fire Suppression:** A competition approved 5 lb. fire suppression system using Halon or FE-36 is **required**. The activation cables must be carefully located to prevent crushing or damage in the event of a rollover. The cables **MUST** be inside the roll cage structure. A minimum of two nozzles in the passenger compartment are required. It is recommended that vehicles using a 5 lb. fire suppression system also carry a 2.5 lb. automotive BC fire extinguisher, and/or a second 5 lb. automatic system with nozzles in the engine compartment and fuel cell area. A 2.8 liter AFFF foam system may substitute for a 5 lb. Halon/FE-36 system.

**Restraints:** A competition-rated 5, 6, or 7-point **racin**g harness in accordance with Appendix A, mounted to the roll cage or frame, is **mandatory**. The mounting of the harness must conform to Appendix A requirements, especially the shoulder harness mounting. This will be thoroughly checked at all Tech Inspections. **Y-type or one-piece V-type shoulder harnesses are not allowed. 4-point 2-inch "street" harnesses ("show belts" or "tuner belts") are not acceptable for use** even if a crotch strap is added. Racing-approved **arm restraints are mandatory.** (See Appendix A: **Harness and Restraint System Requirements** for full details.)

**Clothing:** A **multi-layer** SFI-rated Nomex or Carbon-X fire-resistant driving suit, plus **multi-layer** Nomex or Carbon-X lined racing gloves, Nomex or Carbon-X socks and Nomex or Carbon-X lined racing shoes are **required**. A suit meeting SFI 3-2A/5 specifications worn with Nomex or Carbon-X underwear, or alternatively a suit rated SFI 3-2A/10, will be considered the minimum Level 3 standard. A suit rated SFI 3-2A/15 or higher is highly recommended. A one-piece suit is recommended. **Single layer suits are not allowed for Level 3.** Treated cotton suits of any kind, e.g. Proban or Pyrovatex, **will not be allowed for Level 3, regardless of any rating they may carry.** Cordura clothing is not permitted. Wearing of synthetic clothing under the driving suit is not recommended.

**Helmet/helmet support:** A full face auto racing helmet with shatterproof face shield, meeting Snell SA2000 (or later) or SFI 31.2 ratings, is required. **Motorcycle and DOT helmets are not permitted for Level 3.** A Nomex or Carbon-X head sock (balaclava) is **required** for Level 3. A racing-approved Head and Neck Restraint system is **required for level 3.** (Note: "horse-collar"-type helmet supports do NOT qualify as head and neck restraints!) **NOTE: Beginning next year (2011) the minimum acceptable Snell helmet standard will be SA2005.**

**Rollover Protection:** A competition approved roll cage (Appendix C) is **mandatory.** A bolt-in roll cage is allowed, and a fully welded roll cage is **highly recommended.** Certain vehicles with built in OEM roll cage structures **may** meet the minimum roll cage standard for Level 3, but these are very uncommon. Contact MKM or the Chief Technical Inspector to inquire about your particular vehicle.

**Fuel Tank:** A competition-approved foam-filled bladder fuel cell **with metal shell** is required. An automatic rollover shutoff valve must be used. (Certain factory fuel tanks with bladder inserts may be acceptable with the addition of foam. Consult with the Chief of Tech for prior approval of these fuel systems.)

**Seat:** A proper racing seat, preferably of metal or carbon-fiber construction, is **required** and must be mounted to the roll cage unless documentation from the seat manufacturer is produced that supports otherwise. The use of head restraints ("wings") on the racing seat is highly recommended. If a seat covering is used it must be made of Nomex or other approved fire resistant material. Drag race style **molded plastic seats are not permitted.** Fiberglass racing seats may be acceptable but you should consult the Chief of Tech for approval.

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## GENERAL REQUIREMENTS FOR ALL MOTORCYCLES

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- A. Vehicles in the Motorcycle divisions must be two wheeled motorcycles, with wheels in line, using one internal combustion engine, driving the rear wheel only.
- B. Minimum wheelbase is 48 inches. Maximum Wheelbase is 72 inches.
- C. All motorcycles must be in generally good condition and in an excellent state of repair for running at high speed, with no apparent damage or mechanical defects, obvious missing pieces, loose parts, etc. and no fluid leaks of any kind.
- D. Must have functional suspension with functional shock absorber(s) or forks on front and back wheels. Limit straps and other suspension limiting devices are prohibited.
- E. Must have operational brakes on both front and rear wheels. Hydraulic disc brakes front and rear are highly recommended. Both wheels must have fenders. Removal of rear splash guard on sport bikes is allowed.
- F. The following motorcycle types are generally prohibited: 3 wheeled vehicles; Choppers or bikes with overly extended forks or handlebars; Scooters; Dirt bikes; Mini-bikes; Mini GP or Pocket bikes; Streamliners or bikes with enclosed wheels.
- G. Turn signals and mirrors must be taped over or removed. Headlights and taillights must also be taped over.
- H. **All motorcycle riders must wear a full face helmet, full leather suit, leather gloves, and leather boots. No exceptions.**
- I. **Helmets:** All helmets must be properly sized and fitted, full face, with a shatterproof face shield, in good condition, and must have never been in an accident. "Clamshell" helmets (those that are not a one piece shell, and hinge open in front) are allowed **in MS (Street) division only**. Helmets should be less than 10 years old, and must meet one or more of the following standards: Snell M2000 or later; Snell SA2000 or later; SFI 31.2 or 41.2; BSI 6658 Type A; ECE 22-05; ACU Gold; SHARP 2 star or higher; AS/NZS1698-2006. **Helmets rated only DOT are not permitted.** Motocross-type helmets (without a face shield, meant for goggles) are not permitted. Face shield tear-offs are not permitted. **NOTE: Beginning next year (2011) the minimum acceptable Snell standards will be M2005 or SA2005.**
- J. **Clothing:** A full leather racing suit is the minimum standard. 2-piece suits must completely zip together with at least a 350 degree zipper. Leather gauntlet style full fingered gloves (with no exposed metal) that overlap your suit and leather high-top riding boots that cover the ankle and overlap the suit are required. One-piece heavy leather racing suits are recommended, and one-piece heavy leather road racing suits with CE-rated armor and spine protector are **highly recommended**. Kevlar or similar stretch panels for ease of movement are permitted but must be kept to the minimum size necessary. Textile, Kevlar or ballistic nylon suits are not allowed. Separate leather jacket and pants that don't completely zip together are not acceptable. Leather chaps are not acceptable. Hydration devices such as "camelbacks" are not permitted.
- K. **Tires:** Tires must be 250mm section width or less. Front tire section width must be at least half that of the rear tire. Tires must be mounted on appropriate width wheels, as specified by the tire manufacturer. Wheel weights must be taped to the wheel. See **General Wheel and Tire Requirements**.
- L. **Kill Switch:** All motorcycles must be equipped with a kill switch with a lanyard (tether) attached to the rider, to kill the engine and all power including any electric pumps in case of a fall-off. Proper operation must be demonstrated at Tech Inspection. Stock-type lean-angle or tip-over kill switches **are not** an acceptable substitute. Use of two separate tethered kill switches is not recommended but is acceptable if required for technical reasons.
- M. **Safety Wiring:** The following items must be safety-wired or pinned to prevent loosening: Front and rear axles, either the axle nuts or pinch bolts as appropriate; oil drain plug; and clip-type chain master link. (Use of silicone to secure the master link is allowed, with colored silicone preferred.) Safety-wiring the oil filter and oil filler cap is not required but is highly recommended. Chemical thread lockers are not a substitute for safety-wiring.
- N. **Chain:** A chain (or belt) guard is required, preferably made of metal. Multiple chain master links on the same chain are not allowed.
- O. **Steering Damper:** either OEM or add-on, is required for all motorcycles running above 135 MPH.
- P. **Controls:** Hand levers should have ball ends and must not be sharp or pointed. Throttle must be of a spring return type and snap closed when released. Handlebars must turn at least 15 degrees each way from center. Handlebars shall be wide enough that the rider's thumbs are at least 12 inches apart when holding the grips in a normal manner.

- Q. **Breather hoses:** Must dump into a catch can or into the air box. No fluids shall leak onto the track.
- R. **Coolant:** For liquid cooled bikes, it is recommended that all glycol based coolant be removed and replaced with plain distilled water only. (We are trying to avoid the problem of slick, oily glycol coolant ending up on the track.) Wetting agents such as Water Wetter, Purple Ice or Engine Ice are the only recommended additives. (Please note that these additives provide no protection against freezing.)

## Divisional Requirements – Motorcycles

### Street Division (MS) Highest allowed speed: 165 MPH

- A. **Licensing and Speeds:** All riders must hold a current, valid MKM Motorcycle license. (See: **Competitor Qualifications & Licensing**.) The rider must hold a Sportsman or higher license in order to exceed 150 MPH. The speed limit for any run will be the lesser of the rider's License Speed and the bike's Tech Speed, not to exceed 165 MPH.
- B. **Street Legal:** The motorcycle must be currently registered, licensed and insured for street use in the US or Canada.
- C. **Modifications:** This division is for normal stock-profile, street-type, legal, licensed motorcycles. Effective street legal mufflers are required, no straight pipes please! If, in the opinion of the Tech Inspectors, the bike is too heavily modified for normal street use, it will be required to run in a higher division, assuming it qualifies. The required safety modifications (in **General Requirements**, above) must be performed.
- D. **Clothing/Helmet:** See **General Requirements** (above) for acceptable clothing and helmet standards. An "aero hump" is allowed. Clamshell-type front-opening helmets are allowed.
- E. **Tires/Tech Speeds:** Tires must be in excellent condition. DOT S rated tires are the minimum standard and are approved up to 115 MPH. DOT H rated tires are approved up to 135 MPH. DOT V rated tires are approved up to 155 MPH. DOT Z or higher rated tires are approved up to the division limit of 165 MPH. DOT W or higher rated tires are highly recommended for all. (NOTE: If the tires are rated Z or higher and a one-piece non-clamshell helmet is used, the rider should consider entering in the Modified division instead.)
- F. **Fuel:** 100 pump octane (R+M/2) maximum, unleaded street legal pump gas. (See: **Fuel and Fuel Equipment**.)
- G. **Power Adders:** No power-adders allowed. (See: **Fuel and Fuel Equipment**.)

### Modified Division (MM) Highest allowed speed: up to No Limit, tire-dependent

- A. **Licensing and Speeds:** All riders must hold a current, valid MKM Motorcycle license. (See: **Competitor Qualifications & Licensing**.) The rider must hold a Sportsman or higher license in order to exceed 150 MPH. The rider must hold an Unlimited license in order to exceed 205 MPH. The speed limit for any run will be the lesser of the rider's License Speed and the bike's Tech Speed.
- B. **Clothing/Helmet:** See **General Requirements** (above) for acceptable clothing and helmet standards. An "aero hump" is allowed. Fully armored road racing suits are highly recommended. Clamshell-type front-opening helmets are prohibited.
- C. **Tires/Tech Speeds:** Tires must be in excellent condition. DOT S rated tires are the minimum standard and are approved up to 115 MPH. DOT H rated tires are approved up to 135 MPH. DOT V rated tires are approved up to 155 MPH. DOT Z rated tires are approved up to 190 MPH. DOT W or higher rated tires are approved to unlimited speeds. DOT (W) (in parentheses) rated tires are highly recommended. True racing tires are also highly recommended but must be cleared in advance by MKM. *[Special Note for tire shoppers: Beginning in 2011, W rated tires will be limited to a speed of 205 MPH. (W) (parentheses) rated tires will become the minimum requirement for unlimited speeds next year.]*
- D. **Fuel:** Up to 117 motor octane, pump or race gasoline. (See: **Fuel and Fuel Equipment**.)
- E. **Power Adders:** One power-adder allowed for all bikes in this division. Two power adders are allowed ONLY if the rider has a Sportsman or higher license. (See: **Fuel and Fuel Equipment**.)

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# General Wheel and Tire Requirements

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(here again, the term "car" refers to all 4-wheeled vehicles.)

- A. **Load Rating: All tires must have a load carrying capacity equal to or greater than that of the vehicle's original tire.** (Example: Suppose the OEM tire for your vehicle is a P205/65R15 rated @ 1400 lbs. Any replacement tire must therefore have a load rating of at least 1400 lbs., regardless of the speed rating or division in which the vehicle is competing. Modern tires use a "load index" or "service description" number but the concept is the same.) This rule applies to all vehicles including motorcycles.
- B. Obviously there are some cases (such as vehicles never intended for road use) where there is no original factory rating for the purpose of Rule A. In such cases, tires must be of a size and type appropriate for the vehicle's design, weight, and speed. If this applies to you, your tires will be closely scrutinized at Tech Inspection for adequate size and capability.
- C. All DOT tires used on cars are required to be radials. Radial and non-radial tires shall not be mixed on the same vehicle, including motorcycles. Automotive tires may not be used on motorcycles, and vice versa.
- D. Automotive DOT-legal radial racing tires: MKM will maintain an official list of DOT-legal radial automobile competition tires that we will accept for use. These will be treated as though they have a (Y) speed rating, even if they actually have a lower rating, or no rating at all, on the tire. In many cases this means that they are approved up to 220 MPH. The list will be available on the [mojavemile.com](http://mojavemile.com) web site. Only the EXACT models on this list qualify for this special treatment. The Load Rating rule (Rule A above) must still be observed.
- E. Use of any non-DOT tire (either radial or bias ply) on any vehicle, for example "real" racing tires, must be cleared in advance with MKM or the Tech Inspector. Road Racing slicks (not rain tires) and NASCAR Speedway tires generally will be given favorable consideration for use if they are properly sized. If NASCAR tires are used, the use of a safety inner liner is highly recommended. Please note that drag racing tires, except for DOT Drag Radials, are generally NOT acceptable.
- F. Tires or wheels may not rub on any part of the suspension, frame, or bodywork.
- G. Cosmetic hub caps, wheel covers and "beauty rings" that are not attached with bolts or quarter-turn fasteners, must be removed. "Spinner" type wheels or wheel covers, with moving parts, are strictly prohibited.
- H. **Prohibited for cars:** Drag slicks; drag-type skinny front tires unless they are DOT Radial; undersized or "space-saver" tires; any tire less than 185mm (7.25 in.) section width, unless OEM; wire wheels; wheels less than 6 inches in width unless OEM; wheels larger than 20 inches in diameter, unless OEM, or designed and approved for the speeds expected; tires larger than 30 inches in diameter (exception: 33 inch diameter allowed for ¾ ton or larger trucks/SUVs).
- I. **Prohibited for motorcycles:** Drag slicks; tires of greater than 250mm section width; front tires that are less than half the section width of the rear tire.
- J. Treaded tires must be on-road, highway-type or all-season tread only. No knobby, lug tread, snow, mud, all-terrain, off-road tires or the like.
- K. **All vehicles in this event must run with their tires inflated to at least the pressure given on the vehicle's DOT tire sticker (if it exists), with a minimum of 28 PSI.** No exceptions unless you can prove to Tech Inspection's satisfaction why you shouldn't. ("Extra starting traction" is not a valid reason.) This is only a minimum; most vehicles should probably run higher pressures. A tire's speed-handling capability is directly dependent upon adequate inflation pressure.
- L. **Tire tubes for motorcycles:** Tubes are not allowed in tubeless tires unless the tire maker says it is permissible. Tubeless tires on non-wire-type wheels are recommended. If a tube-type tire is used, the correct tube for the tire, as specified by the tire manufacturer, must be used. A new tube-type tire should have a new tube installed along with it; the old tube should not be re-used.
- M. **Tire tubes for cars:** Tire tubes, and tube-type tires, are prohibited for cars except for LSR tires or by specific MKM pre-approval.

- N. Tire tread depth (or rubber depth, for slick racing tires) should not be less than 3/32 of an inch and must not be less than 1/16 of an inch. No cords may be showing through – ever!
- O. Valve stem caps, made of metal, with "O" ring seats, are **mandatory**. These are available at most auto parts stores. Metal valve stems are recommended. Racing valve stems are recommended but caution should be used because they may not fit well on all rims.
- P. Tires must be in excellent condition (no sidewall cracks, bulges, uneven wear or damaged tread) and suitable for use at the vehicle's maximum speed in the event. They **should** not be more than 4 years old. However, we are aware that newly purchased tires can sometimes be 1 or more years old at the time of purchase. If your tires fall into this category, please consult with MKM or the Chief of Tech before taking any action. Tires **must not be more than 6 years old**, regardless of tread or apparent condition.

*Note: The tire production date can be found inside a small oval stamp on the inside sidewall. It is a 4-digit number indicating the week and year of production. For example, if the number is "1305", then the tire was produced in the 13<sup>th</sup> week of 2005. (If it is a 3-digit number, the tire was produced prior to 2000 and is too old to be used.) You will be asked to provide these dates on your Tire Inspection Form. PLEASE contact us if you have any questions, and we will help you.*

- Q. The use of repaired, patched or plugged tires is not permitted. Tire failures are a prime cause of racing accidents, so consider your tire condition very carefully!
- R. Tires must be mounted on wheels of proper diameter and width, as listed by the tire manufacturer. Directional tires must be mounted so that they rotate in the proper direction as indicated on the sidewall or by the tire manufacturer. Tires intended for specific right or left side usage must be used on the correct side.
- S. (Automobile) Lug Nuts/Bolts: Lug nuts must be of the correct type (flat or conical) and size for the wheels and studs used. If open lug nuts (preferred) are used, the wheel stud must protrude through the nut. Closed (acorn) lug nuts are discouraged, but if used, thread engagement into the hex part of the nut must equal or exceed the diameter of the stud. *(In other words, with a nut removed, the stud must protrude past the wheel flange, plus any washer used, by at least that much. For lug bolts, the threads must engage into the hub by the same amount.)* Care must be taken to avoid any bottoming of the studs, nuts or bolts. Non-conical (flat bottom) nuts/bolts must use a steel washer between the wheel and nut/bolt. Studs, nuts or bolts must not be undersize in diameter for the wheels used. Lug nuts and/or bolts must be tightened to the proper torque value. If anything in this section is a problem for you, please contact MKM for advice, prior to the event.
- T. For cars, the left and right tires on a given axle (front or rear) must match, meaning they must be the same size, brand, model and ratings, or be a manufacturer-matched left and right pair. The front and rear speed ratings should also match, but if they do not, the lowest speed rating of the two will apply.
- U. Tire Speed Rating Information:

The following tire-industry rating information is made available to the entrant in order to assist their preparation.

**S**= 112mph **T**= 118mph **U**= 124mph **H**= 130mph **V**= 149mph **Z**= 149mph+  
 Within the Z category: **W** suffix = 168mph **Y** suffix = 186mph **(Y)** suffix= 186+ mph

Motorcycles use the same codes but generally only S, H, V, Z, W and (W) (168+) ratings are available.

These are tire-industry ratings for continuous running and are not necessarily the same as the limits allowed in this event.

**TIRES RATED LOWER THAN "S" ARE NOT PERMITTED IN THIS EVENT.**

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## ***Fuel & Fuel Equipment; Power Adders***

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- A. Power Adders: are defined as either a Nitrous Oxide injection system or an added-on (non-OEM) supercharger or turbocharger. No power adders are allowed in S4 or MS divisions. For other divisions, see the division requirements. Upgrades to OEM blower or turbo systems that simply replace the original unit with a higher-capacity unit in the stock location with stock mountings, generally do not count as additional power adders. When counting power adders, please note that for multi-stage systems, each stage is considered to be one power adder. For example, a two-stage nitrous system counts as two power adders. Tandem or series super- or turbocharging works the same way; for example, one turbo feeding into another, would count as two power adders. A twin-turbo system with each turbo feeding either a separate group of cylinders or a common manifold, however, would only count as one power adder.
- B. Nitrous Oxide injection systems must incorporate an arming/disarming switch within easy reach of the driver/rider, and a throttle-operated switch set up so that the system will only function at the wide-open throttle position. The system must be wired such that it shuts off with the ignition switch and/or kill switch. It is also recommended that oil-pressure and fuel-pressure safety switches be wired in series with the arming switch. Nitrous purge valves and blow-down tubes must vent outside the vehicle. Maximum of two 10-lb. tanks or one 20-lb. tank allowed. (For motorcycles, maximum of two 2.5-lb. tanks or one 5-lb tank allowed.) Systems in the GT Division are limited to a single stage "125 shot" type. Tanks must be clamped in securely mounted metal brackets made for that purpose; no hose clamps, plumber's tape or other crude mountings allowed. All tanks and plumbing for the system must be rated for the pressures used, with steel hard lines and/or braided-steel hoses highly recommended. Careful attention must be paid to the ignition and fuel delivery systems to ensure their adequacy for the increased power level and cylinder pressure.
- C. Non-OEM positive displacement superchargers (such as Roots-type blowers) should be equipped with pressure relief (pop-off) valves and/or burst panels to reduce damage from any backfires that may occur. Retaining straps for the blower are also recommended.
- D. Fuels: For S4 or MS divisions: Street-legal unleaded pump gas up to 100 pump octane allowed. For all other divisions: up to 117 motor octane race gas allowed. Nitromethane, propylene oxide, ethylene oxide, toluene, xylene, acetone, MEK or similar exotic fuels or additives are strictly prohibited. Commercial octane boosters such as "104+" are permitted if less than 2% of the total gasoline volume. Diesel fuel and E85 are allowed in all divisions for suitable vehicles. Straight alcohol (ethanol and/or methanol) must have prior approval of MKM. Other fuels may be permitted at the discretion of MKM if proper application is made prior to the event. Compressed gas fuels such as Propane, LPG, CNG, Methane, Hydrogen, etc. are not allowed without prior special permission, except that a propane injection system is permitted (and counts as a power adder) for diesel-powered pickups, in a division where power adders are allowed. Such a system must have the propane tank securely mounted outside the passenger compartment in a ventilated area.
- E. A water or water/alcohol injection system (containing a maximum of 50% alcohol) for detonation suppression is allowed except in S4 and MS Divisions. This system must be declared to the Tech Inspectors, who will inspect and possibly seal the tank. Such a system does not count as a power adder.
- F. No fuel may be carried in the vehicle in any container other than the gas tank or fuel cell.
- G. Any open compartment or "hatchback" style vehicle must incorporate a physical barrier between the fuel tank or cell and the passenger compartment. Lexan may be used if this barrier could impede rear visibility. It is strongly recommended that you consult with the Chief Technical Inspector or the Event Director prior to installation.
- H. Electric fuel pumps: It is highly recommended that any vehicle equipped with an electric fuel pump also be equipped with an oil-pressure safety switch, to stop the pump in case of loss of oil pressure. A rollover safety switch is also recommended. Power to the pump must be controlled by the vehicle's ignition switch or master switch. **If an electric fuel pump is used on a motorcycle, the required tether kill switch must also kill the pump.** Use of a second tether kill switch just for the pump is acceptable.

## **Appendix A Harness and Restraint System Requirements**

If a racing harness is installed, it must meet the following requirements:

The harness must be racing-approved, 5, 6 or 7-point with 3-inch lap and shoulder belts, and a crotch belt or belts, except as noted in rule I, below. A cam lock safety harness latching system is highly recommended.

**Harness Mounting/Age Requirements:** Harnesses must be mounted at or on the roll cage, roll bar, frame member, or body panel (with adequate spreader plates).

- A. The shoulder belt mounting height (or roll bar crossover height for floor-mounted shoulder belts) should be no more than 2" +/- from the driver's shoulder height when seated in a driving position to reduce the possibility of spinal compression injuries. Shoulder harnesses must be secured or stressed over a steel tube at the proper height. Shoulder harnesses that are not supported by holes in the seat should have a sternum strap added to keep the belts from spreading.
- B. **Y-type and one-piece V-type shoulder harnesses are not allowed.** Shoulder harnesses must be two separate belts.
- C. The shoulder harnesses should be attached to the horizontal bar on roll bars and roll cages.
- D. The belts should be mounted so as to not cause undue spinal compression.
- E. Adequate spreader plates must be used when mounting harnesses to a body panel. Mounting to fiberglass or other non-metal panels is strictly prohibited.
- F. Harnesses must be mounted to the roll cage or frame member for Level 3. OEM seat or belt mounting points can be used at all lower levels (except S4 Division, where non-OEM belts are normally not allowed) but proper harness installation is difficult without a roll bar or harness mounting bar. **Use of extra-long shoulder belts running back to rear seat or rear seat belt mounting points is not recommended and will be closely scrutinized at Tech Inspection.** X-type shoulder belts where the two belts cross behind the seat (and are often stitched together at the crossing point) are somewhat more acceptable for this type of mounting, but length (which allows excessive stretch) is still a serious issue, and paragraph A (above) is also a consideration. **Consult with the Chief of Tech if you plan to enter a car with harnesses but without a harness bar or roll bar.**
- G. Manufacturer's labels cannot be located under the adjusting mechanism when the driver is buckled in the seat and has tightened the seat belts and shoulder harness, as this could cause the belt to "dump" on one side and tear under stress. This will be checked at Tech Inspection.
- H. All harnesses must be permanently dated and be no more than 5 years old. Harnesses must never have been used in a crash.
- I. FIA-approved 2" lap belts with proper certification will be accepted but only as part of a complete FIA harness. 3" shoulder straps are still mandated, with the exception of HANS-specific 3" into 2" shoulder harnesses when used with a HANS device. Please consult with the Chief of Tech if you desire to use these belts. **4-point 2-inch "street" harnesses ("show belts" or "tuner belts") are not acceptable for Level 1 unless they are OEM for the vehicle, regardless of any DOT rating; and they are never acceptable for Level 2 or 3 even if crotch straps are added.**
- J. Crotch Strap Adjustment: Crotch Straps must be adjusted to ensure the lap belts tighten properly across the pelvic girdle (known as the Iliac Crest) and not the soft part of the abdomen. This adjustment will be checked at Tech Inspection.

**Helmet Supports/Restraints:** Padded helmet supports ("horse collars") are the minimum Level 2 standard and are recommended for all levels. **A racing-approved head and neck restraint system** (HANS, Hutchens, R3, Simpson, SRS-1, DefNder, Leatt or similar) **is REQUIRED** for Level 3 and highly recommended for all Auto competitors if possible. All HANS device users must ensure their harness mountings are in exact conformation with the device requirements. Any entrant using a HANS device must coordinate with the Chief of Tech and be prepared to provide supporting documentation that their installation is in compliance with HANS requirements. All other types of head and neck restraint systems must also be installed and used strictly in accordance with their manufacturers' instructions.

**Arm Restraints:** **In all cases where racing harnesses are installed, racing-approved arm restraints are also required.** Care must be taken when installing these in conjunction with a harness that uses a latch-lever style release. A protective cover over the latch lever is needed so that the arm restraint strap cannot accidentally release the belts. This can be a purpose-made cover, or simply a piece of tape. The cover must not significantly interfere with the ability of the driver to intentionally release the belts when necessary.

## **Appendix B Roll Bar Specifications**

**When Required:** A Roll Bar is mandatory for Level 2 and highly recommended for Level 1 (but not for S4 Division, where modification is not allowed). Convertibles and vehicles lacking a metal roof structure, in all divisions, must have some sort of rollover protection behind the driver. Vehicles with "pop-up" roll bars, approved OEM rollover structures, or factory reinforced roll structures may be allowed to compete without a roll bar in cases where a roll bar is required, but will be evaluated on a per car basis. The Event Director's decision regarding acceptability is final.

**Basic Design Considerations:** The basic purpose of the roll bar is to protect the driver in case the vehicle rolls over. It should be designed to prevent serious body shell deformation in the case of a collision or of the car turning over. A roll bar is comprised of a structural frame or hoop, fore and aft braces, and mounting points.

The top of the roll bar shall not be below the top of the driver's helmet in a closed car and a minimum of two (2) inches above the driver's helmet in an open car when the driver is in the normal driving position with helmet on. It shall not be more than six (6) inches behind the driver.

The two vertical members forming the sides of the hoop shall not be less than fifteen (15) inches apart, inside dimension, at their attachment points to the uppermost main chassis member.

If certification of roll bar construction cannot be provided, an inspection hole of at least 3/16 inch diameter must be drilled in a non-critical area of the roll bar member to facilitate verification of wall thickness. This should be at least three inches from any weld or bend.

**Material:** The roll bar hoop and all braces must be of seamless, ERW (Electric Resistance Welded), DOM (Drawn over Mandrel) or CREW (Cold Rolled Electric Welded) mild steel tubing, with DOM being the preferred choice.

Chrome alloy tubing, such as 4130, is not recommended since the strength of the area adjacent to the welds will be impaired if the structure isn't normalized, and because of the difficulty in making satisfactory welds.

The size of the tubing to be used must be determined on the basis of the weight and speed potential of the car. Refer to the chart below. The main hoop and support braces must be of the same size.

**Fabrication:** The main vertical hoop must be of one continuous length of tubing with smooth continuous bends and no evidence of crimping or wall failure. All welding must be of the highest possible quality with full penetration and will be subjected to very critical inspection. Arc welding, preferably TIG, should be used wherever possible. Gussets should be welded at the junction of any tubes.

On vehicles of Space Frame or Frameless Design: It is important that the structures be attached to the vehicles in such a way as to spread the loads over a wide area. It is not sufficient to simply attach the roll bar to a single tube or junction of tubes. The roll bar must be designed in such a way as to be an extension of the frame. Considerable care must be used to add as necessary to the frame structure itself in such a way as to properly distribute the loads. It is not true that a roll bar can only be as strong as any single tube of the frame. On vehicles of frameless construction, consideration should be given to using a vertical roll bar hoop of 360 degrees completely around the inside of the car, and attached with suitable mounting plates. This type of roll bar then becomes a substitute for the frame.

**Bracing:** The braces must be of the same size tubing as used for the roll bar itself. All roll bars must be braced in a fore or aft direction with the brace attached within six inches of the top of the hoop, and at an angle of at least thirty (30) degrees from vertical. It is required that a diagonal brace be used to triangulate the main hoop and it is highly recommended that this brace be attached at the top on the driver's side, and to the bottom on the "passenger's" side.

An additional horizontal bar to support the main hoop is recommended. In addition, this bar should be installed at the height no more than 2" above or below the driver's shoulders while seated in the driver's position. The shoulder harness should be attached to this bar.

**Mounting Plates:** Roll bars and braces must be attached to the frame of the car whenever possible. Mounting plates must be used for this purpose. In the case of cars with unitized or frameless construction, mounting plates must be used to secure the roll bar structure to the floor of the car. The important consideration is that the load be distributed over as large an area as possible, with 4"x 4" x 1/8" the minimum size desired for spreader plates. A back up plate of equal size and thickness must be used on the opposite side of the panel with the plates through-bolted together using grade-eight (8) bolts and Self-locking nuts or double nuts if welding is not possible. It is preferred that the plates be tack welded or welded to the car's frame. On some vehicles this exact size is not an option and square area of the spreader plate must be calculated to spread the maximum load expected in the worst-case scenario.

**Removable Roll Bars:** Removable roll bars and their braces must be very carefully designed and constructed to be as least as strong as a permanent installation. The removable sections MUST “bottom out” onto the mounting plate so as not to put all of the stress on the connecting bolt.

If one tube fits inside another to facilitate removal, the removable portion must bottom on the permanent mounting, and the mounting hardware used to secure each joint must be at least grade eight (8) or better. It is recommended that the telescope section be at least eight inches in length.

**Other Designs:** Deviations from the above will be considered. NHRA-approved roll bars will be accepted but we would prefer a full 6-point or higher design.

**Roll Bar Padding:** Roll bar padding must be used to protect the occupants in all areas of possible contact. It must be of material (readily available) that is designed for this purpose. SFI-approved padding is highly recommended. Pipe insulation and the like is not permitted.

**Minimum Tubing Sizes:** The size of the tubing to be used shall be determined on the basis of the weight and speed potential of the car.

**Roll Bar Tubing Chart:**

Weight	Steel	Minimum Tubing Size
Under 1500 lbs.	Mild Steel	1.50" O.D. X .120 wall
	Alloy Steel	1.50" O.D. X .090 wall
Over 1500 lbs.	Mild Steel	1.75" O.D. X .120 wall
	Alloy Steel	1.75" O.D. X .090 wall

(It is recommended that vehicles weighing in excess of 3200 pounds use 2.00" tubing).

## Appendix C Roll Cage Specifications

**When Required:** A Roll Cage is mandatory for Level 3 and highly recommended for all lower levels (except for S4 Division, where modification is not allowed). Certain vehicles with OEM factory roll cage structures may be allowed to compete without a separate roll cage in a division where a roll cage is required, but such cars are very uncommon and will be evaluated on an individual basis. Consult with MKM well ahead of the event for such an evaluation, if you think this applies to you. The Event Director's decision regarding acceptability is final.

**Design Requirements:** Roll cages must be designed and made so that, when correctly installed, they substantially reduce body shell deformation and so reduce the risk of injury to occupants. The essential features of roll cages are sound construction (designed to fit the particular vehicle), adequate mountings, and a close fit to the body shell. Tubes must not carry fluids. The safety cage must not unduly impede the entry or exit of the driver.

Bolt-in roll cages are allowed; fully welded cages are recommended. At least one door bar must be used on both sides of the vehicle. More than one door bar is recommended. The use of a NASCAR style door bar incorporating at least 2 bars that extend into the door and are supported by vertical upright bars is highly recommended. A factory side impact bar may only be removed if using a NASCAR style cage design.

The cage should be triangulated at as many points as possible and the liberal use of gussets, welded at each joint, is mandatory.

**Basic Design Considerations:** A roll cage is comprised of a structural frame or hoop, a perimeter roof hoop, door bars, fore and aft bracing and diagonal supports all arranged in such a manner so as to prevent occupant injury in the event of a rollover and to structurally improve the integrity of the vehicle.

The top of the roll cage main hoop shall not be below the top of the driver's helmet in a closed car and a minimum of two (2) inches above the driver's helmet in an open car when the driver is in the normal driving position with helmet on. It shall not be more than six (6) inches behind the driver.

The two vertical members forming the sides of the hoop shall attach to the outermost main chassis member. If certification of roll cage construction cannot be provided, an inspection hole of at least 3/16" diameter must be drilled in a non-critical area of the main hoop to facilitate verification of wall thickness. This should be at least three inches from any weld or bend.

**Material:** The roll cage hoop and all braces must be of seamless, ERW (Electric Resistance Welded), DOM (Drawn over Mandrel) or CREW (Cold Rolled Electric Welded) mild steel tubing, with DOM being preferred. Chrome alloy tubing, such as 4130, can be used but is not recommended since the strength of the area adjacent to the welds will be impaired if the structure isn't normalized, and because of the difficulty in making satisfactory welds. The size of the tubing to be used must be determined on the basis of the weight and speed potential of the car. Refer to chart below. The main hoop and support braces must be of the same size.

**Fabrication:** The main vertical hoop must be of one continuous length of tubing with smooth continuous bends and no evidence of crimping or wall failure. All welding must be of the highest possible quality with full penetration and will be subjected to very critical inspection. Arc welding, preferably TIG, should be used wherever possible. Gussets should be welded at the junction of any tubes.

On vehicles of Space Frame or Frameless Design: It is important that the structures be attached to the vehicles in such a way as to spread the loads over a wide area using spreader plates. It is not sufficient to simply weld the bars to body or frame material. The roll cage must be designed in such a way as to triangulate the designed structure of the vehicle. Considerable care must be used to add as necessary to the frame structure itself in such a way as to properly distribute the loads.

**Bracing:** The braces must be of the same size tubing as used for the roll bar itself. All roll cages must be braced in a fore or aft direction with the braces attached within six inches of the top of the verticals and at an angle of at least thirty (30) degrees from vertical. It is required that a diagonal brace be used to triangulate the main hoop and it is highly recommended that this brace be attached at the top on the driver's side and attached to the bottom on the "passenger" side.

An additional horizontal bar to support the main hoop is recommended. In addition, this bar should be installed at the height no more than 2" above or below the driver's shoulders while seated in the driver's position. The shoulder harness should be attached to this bar. A head restraint is recommended.

**Mounting Plates:** The main hoop and braces must be attached to the frame of the car whenever possible. Mounting plates must be used for this purpose. In the case of cars with unitized or frameless construction, mounting plates must be used to secure the structure to the floor and body of the car. The important consideration is that the load be distributed over as large an area as possible, with 4"x 4" x 1/8" the minimum size desired for spreader plates. The plates must be tack welded or continuous welded to the car's frame. On some vehicles this exact size is not an option and square area of the spreader plate must be calculated to spread the maximum load expected in the worst-case scenario.

**Other Designs:** Deviations from the above will be considered. NHRA approved roll cages will be accepted but any factory side-impact door bar must remain. The NASCAR design is preferred.

**Roll Bar Padding:** Roll bar padding must be used to protect the occupants in all areas of possible contact. It must be of material (readily available) that is designed for this purpose. SFI-approved padding is highly recommended. Pipe insulation and the like is not permitted.

**Minimum Tubing Sizes:** The size of the tubing to be used shall be determined on the basis of the weight and speed potential of the car. Tubing of 1 5/8" .120 or .133 wall mild steel may substitute for the mild steel sizes listed in the chart, for an NHRA cage only.

**Roll Cage Tubing Chart:**

Weight	Steel	Minimum Tubing Size
Under 2700 lbs.	Mild Steel	1.50" O.D. X .120 wall
	Alloy Steel	1.50" O.D. X .090 wall
Over 2700 lbs.	Mild Steel	1.75" O.D. X .120 wall
	Alloy Steel	1.75" O.D. X .090 wall

It is highly recommended that vehicles weighing in excess of 3200 pounds use 2.00" tubing.

## **Appendix D   Divisional Requirements for Land Speed Competitors**

### **Land Speed Auto Division (LSA) Speeds: tire-dependent, up to No Limit**

The following are the minimum requirements for the Land Speed Auto Division:

- A. **Eligibility:** This division is open only to four-wheeled vehicles used for Land Speed racing sanctioned by SCTA/BNI or USFRA. All vehicles in this division must already have a current, filled-out official SCTA log book and matching current official chassis sticker, and must have passed a recent SCTA/BNI or USFRA tech inspection (within the last two years). USFRA 130 and 150 club experience does not qualify. SCTA log books/stickers will not be available at this event.
- B. **Numbers:** MKM will issue an official vehicle number sticker which must be affixed to the left side of the vehicle. Vehicles may also display their SCTA-assigned number; however, this will not be used for timing and scoring purposes. It is suggested that the SCTA number be covered up to avoid confusion, but this is not required.
- C. **Licensing/Speeds:** All drivers must hold a current, valid MKM Auto license. An MKM Sportsman license is required for speeds over 150 MPH and an MKM Unlimited license is required for speeds over 205 MPH. Drivers are required to hold a current (less than two years old) SCTA competition license, and will be granted automatic MKM Licensing at the appropriate level, as stated previously, with the proviso that auto racing experience (as opposed to only motorcycle) is required to receive an MKM Auto license above Basic. The speed limit for any run in this division is the lesser of the driver's License Speed and the car's Tech Speed.
- D. **Fuel:** Any SCTA-eligible Gasoline or Fuel. Nitrous Oxide is permitted subject to SCTA rules.
- E. **SCTA Classes not permitted at this event:** S (streamliner) classes; HH classes.
- F. **Vehicle standards, vehicle and personal safety equipment:** Our intent is to have Land Speed cars and drivers equipped and prepared just as they would be for a normal Land Speed event. Each vehicle and driver must meet SCTA technical and safety requirements, sufficient to pass an SCTA technical inspection for their vehicle class, as set forth in the SCTA Rule Book. MKM's normal vehicle and safety equipment rules and technical specifications will not apply.
- G. **Tires and speed limits:** Generally based on SCTA rule 2.F, as follows: (Must be automobile tires; motorcycle tires not allowed.)
  1. DOT S rated tires are the minimum MKM standard and are approved for speeds up to 115 MPH.
  2. DOT T rated tires are approved for speeds up to 120 MPH.
  3. DOT U rated tires are approved for speeds up to 125 MPH.
  4. DOT H rated tires are approved for speeds up to 150 MPH.
  5. DOT VR or ZR rated tires (with any suffix) are approved for speeds up to 200 MPH (except on cars without a parachute, which are limited to 175 MPH).
  6. (exception to SCTA limits) MKM will allow DOT Z rated tires with (Y) suffix (if shaved), or DOT racing radials appearing on the official MKM list, for speeds up to 220 MPH, but only if they have 6/32 tread depth or less.
  7. Other than the above, special racing tires are required for speeds above 200 MPH. NASCAR Speedway tires or non-DOT Road Racing slick race tires, if properly sized and fitted, are acceptable for speeds up to 260 MPH, subject to MKM pre-approval. If NASCAR tires are used, safety inner liners are highly recommended. Any speed above 260 MPH requires special certified LSR tires. In all cases where speeds greater than 220 MPH are expected, or non-DOT tires are used, you must consult with MKM for tire pre-approval, well prior to the event.
- H. **Starting:** Please remember that this is fundamentally a standing-start event. Unfortunately, at this time we are not able to allow assistance (push starts and/or crew members) at the starting line. The car must come from the staging lanes to the starting line, stop there, start and complete its run, and then exit the runway, under its own power. Tows to the start line staging area, and recoveries/tow-backs from the far end are allowed, but are not required unless it would be unsafe to drive the vehicle on the taxiway on its own.
- I. **Brakes and Stopping:** Since strong braking systems are sometimes not present on LSR cars, and since we have less than a mile to stop, we will inspect all vehicles in this division for their potential braking ability. Cars without a parachute are limited to 175 MPH. Any vehicle going "out the back door" into the dirt will not be allowed to run again without further inspection and review by race officials, who may impose a lower speed limit or bar the vehicle from further competition.

## Land Speed Motorcycle Division (LSM)

### Speeds: tire-dependent, up to No Limit

The following are the minimum requirements for the Land Speed Motorcycle Division:

- A. **Eligibility:** This division is open only to two-wheeled motorcycles and three-wheeled sidecars used for Land Speed racing sanctioned by SCTA/BNI or USFRA. All vehicles in this division must already have a current, filled-out official SCTA log book and matching current official chassis sticker, and must have passed a recent SCTA/BNI or USFRA tech inspection (within the last two years). USFRA 130 and 150 club experience does not qualify. SCTA log books/stickers will not be available at this event.
- B. **Numbers:** MKM will issue an official vehicle number sticker which must be affixed to the left side of the vehicle. Vehicles may also display their SCTA-assigned number; however, this will not be used for timing and scoring purposes. It is suggested that the SCTA number be covered up to avoid confusion, but this is not required.
- C. **Licensing/Speeds:** All riders must hold a current, valid MKM Motorcycle license. An MKM Sportsman license is required for speeds over 150 MPH and an MKM Unlimited license is required for speeds over 205 MPH. Riders are required to hold a current (less than two years old) SCTA competition license, and will be granted automatic MKM Licensing at the appropriate level, as stated previously, with the proviso that motorcycle racing experience (as opposed to only automobile) is required to receive an MKM Motorcycle license above Basic. In all cases the rider must have a motorcycle-endorsed state-issued driver's license, as required by both SCTA and MKM. The speed limit for any run in this division is the lesser of the rider's License Speed and the bike's Tech Speed.
- D. **Fuel:** Any SCTA-eligible Gasoline or Fuel. Nitrous Oxide is permitted subject to SCTA rules.
- E. **SCTA Classes not permitted at this event:** S (streamliner) classes.
- F. **Vehicle standards, vehicle and personal safety equipment:** Our intent is to have Land Speed vehicles and riders equipped and prepared just as they would be for a normal Land Speed event. Each vehicle and rider must meet SCTA technical and safety requirements, sufficient to pass an SCTA technical inspection for their Land Speed class, as set forth in the SCTA Rule Book. MKM's normal vehicle and safety equipment rules and technical specifications will not apply.
- G. **Tires and speed limits:** Generally based on SCTA rule 7.B.8, as follows: (Must be motorcycle tires; automotive tires not allowed except with express MKM pre-approval.)
  - 1. DOT S rated tires are the minimum MKM standard and are approved for speeds up to 115 MPH.
  - 2. DOT H rated tires are approved for speeds up to 130 MPH.
  - 3. DOT V rated tires are approved for speeds up to 150 MPH.
  - 4. Shaved DOT V-rated tires, or DOT Z rated tires, are approved for speeds up to 200 MPH.
  - 5. DOT W or (W) rated tires, or approved racing tires, are required for higher speeds.
  - 6. Any speed above 265 MPH requires special LSR tires and pre-approval by MKM.
  - 7. Any use of non-DOT tires requires MKM pre-approval.
- H. **Starting:** Please remember that this is fundamentally a standing-start event. Unfortunately, at this time we are not able to allow assistance (push starts and/or crew members) at the starting line. The vehicle must come from the staging lanes to the starting line (may be pushed by the rider), stop there, start and complete its run, and then exit the runway, under its own power. Tows to the start line staging area, and recoveries/tow-backs from the far end are allowed, but are not required unless it would be unsafe to ride the vehicle on the taxiway on its own.
- I. **Brakes and Stopping:** Because we are concerned that some vehicles in this division might not be able to stop in the distance available, we recommend fitting full front and rear brakes, with hydraulic disc brakes greatly preferred. We will inspect all vehicles in this division for their potential braking ability. Any vehicle going "out the back door" into the dirt will not be allowed to run again without further inspection and review by race officials, who may impose a lower speed limit or bar the vehicle from competition.