

LINE MOUNTIAN 4-WHEELERS

LM4W 2008 COMPETITION RULES AND REGULATIONS FOR 3 ½, COAL BUCKET AND 7 MILER

REVISED IN 2011

Line Mountain Four Wheelers 2008 Competition Rules and Regulations

All drivers and co-pilots must belong to LM4W before they can race. Each individual LM4W member must pay Ten (\$10.00) Dollars to join. That individual may register at the race and their membership covers the entire racing season. All memberships expire December 31 of the current year.

Whenever a question of safety or rules arises, the members of the rules committee present - minimum of two (2) - may make a decision on the question, and that decision will be final. The decision of the rules committee will prevail on any situation not covered by these rules. There will be no exclusion to participating in the event by reason of make of four wheel drive vehicle.

No express or implied warranty of safety shall result from publication of or compliance with these rules and regulations. They are intended as a guideline for the conduct of the sport and are in no way a guarantee against injury or death to spectator or participant.

Any vehicle may be re-inspected at any time throughout the event.

Only drivers/co-pilots 16 years of age and over may compete. Any driver under 18 years of age must have signed permission from a parent or guardian to enter competitive events. You must have proof of age if under 18.

All inspections and registration will end one (1) hour before the race.

EXAMPLE: If the race is to start at 10:00 a.m., registration and inspection will close at 9:00 a.m. If you show up after 9:00 a.m. you will not get registered or inspected and you will not compete.

4X4 BODY

1. Each vehicle shall have a minimum body as follows:
 - A. Radiators, oil coolers, hoses, belts and fans must be shielded by a combination of shields and/or hood to protect spectators and drivers.
 - B. Rear tire tread area must be shielded from driver.
 - C. Excessive lightening of the body and/or frame is not permitted.
 - D. Whip antennas, tow bars, and hub caps must be removed for competition. Tire chains are not permitted.
 - E. Bumpers are Mandatory front and rear. Minimum width will be whatever necessary to connect the frame rails. The maximum height from the bottom of the bumper to the ground must not exceed 30 inches. Front and rear bumpers must also be at least flush with tires (front and rear). Bumpers or pushing device can NOT have any sharp edges or points. No part of the vehicle may extend beyond the

bumper (front to rear), pushing devise or body line. (Pushing devise is defined as any flat area or piece that is safe to bump against and not cause damage to any other vehicle.)

- F. The following will apply to home-made bodies:
 - a) Metal with minimum thickness 22 gauge, fiberglass or rubberglass.
 - b) Front engine firewall must extend from cowl to floor. Floor must extend from firewall to rear of driver's seat under driver's compartment.
 - c) Rear engine firewall must extend from hood to top of lowest frame rail behind driver's compartment extending from body in front to rear of driver's seat.
- G. Oil lines, fuel lines, water lines, transmission coolers and radiators are not permitted in the driver's compartment.
- H. Steering knobs are not to extend beyond three (3) inches above the steering wheel and must be at least two (2) inches in diameter.
- I. Roofs are MANDATORY for all obstacle course vehicles and must cover the driver and all passengers.
- J. Throttle lines and cables, brake lines, fuel shut off and kill switch wires must be free/clear from drive line components. All electric and fuel lines must be kept separate.
- K. All racers will be responsible for their own number. Number plates must be 8 inch by 16 inch (8" x 16") and must be mounted towards the top of the vehicle as well as one facing the rear; away from the mud. If for any reason there is more than one (1) number on your vehicle, cover them over or take them off. You can have only on (1) number. You will also be responsible for your number at the checkpoints. If a checkpoint can't get your number or if they misunderstand you when you yell it, you will probably loose. You must make sure the check point has your number correct.
- L. When barcodes are used, they must be returned to LM4W's at the end of the event.
- M. All vehicles must have a rear view mirror and horn.
- N. All 4X4 vehicles must have a rear facing number plate. Numbers must be a minimum of eight (8) inches high.

DRIVE LINE

1. Definition of four Wheel Drive: To classify as a Four Wheel Drive vehicle, the vehicle must have automotive type front and rear axle housing, each containing a ring and pinion gear, axles and carrier assembly, and each must be propelled by an automotive type drive shaft.
2. All vehicles must have a safety inspection at each race. Any vehicle involved in a collision must be reinspected before the next round of competition.
3. All vehicles must have properly functioning brakes on all wheels. All vehicles must use a dual reservoir master cylinder.

4. It is recommended for any Vehicle with two (2) or more externals or one (1) or more internal changes, with an automatic transmission, clutch flight, clutch turbo or Lenco transmission, to have a 360 degree EC4 WDA approved blanket. In place of a blanket it may be equipped with a 1/4" steel or aluminum shield covering the unit on the top and sides from pan rail to pan rail. The shield must have two (2) 3/4" wide by 1/4" thick steel or aluminum straps mounted to the shield going from side to side passing under the pan.
5. All clutch automatics must have an enclosed blow-proof blousing or 360 degree scatter-shield enclosed (Block Plate) and a blow-proof blanket or transmission shield.
6. All vehicles must have a working reverse gear.
7. Any over stock length spring shackles must be reinforced.
8. Any tire considered unsafe by the rules committee will not be to compete.
9. No dual wheeled vehicles permitted.
10. MAXIMUM WHEEL BASE WILL BE NO GREATER THAN 13

DRIVER SAFETY

1. Break-away seat belt and shoulder harness required. (NO CAR TYPE BELTS) Belts must be securely anchored to the same anchor point as the seat, preferably the frame/cage for the pilot and co-pilot. Belts shall be a minimum of 3" lap belts and 2" shoulder straps (Y style shoulder harness accepted).

PREFERRED - 5 point belt system: 3" lap belt, 3" individual shoulder harness, 2" sub-belt (Crotch Strap). Frayed or worn belts not permitted. Aircraft belts not permitted.
2. Anyone whose belts become disengaged, for any reason, must stop and re-connect their belts; otherwise he/she shall be disqualified from that event. Drivers and co-pilots must remain in their belts until safely off the course.
3. Any driver using or under the influence of alcoholic beverages and/or illegal drugs during competition hours, regardless of quantity will be disqualified from the event.
4. No loose objects permitted inside vehicles during competition.
5. Each vehicle will carry, attached to the vehicle, in plain view, a fully charged 2 1/2 lb. minimum dry chemical, Halon (with seal intact), or CO2 fire extinguisher with a dial gauge, approved by ICC, UL or Coast Guard, and equipped with a suitable quick release bracket.
6. No part of the driver's body is allowed to protrude beyond the cage and/or the body of the vehicle. Driver will be disqualified from that event if he/she does so. EXAMPLE: Holding onto roll cage or side bars with hands.
7. Helmets, with ear and skull protection, are mandatory. All helmets must fit properly. Snell 90 or newer required. Minimum Snell 95 recommended.

8. It is recommended that all competitors wear approved eye protection.
9. All competitors must wear a minimum of a long sleeved shirt, buttoned at the cuff, long pants, and shoes in competition. Shoes are defined as footwear which cannot slip off the feet.
10. Safety Nets are mandatory on all vehicles. Nets must be approved stock car netting, NO CHICKEN WIRE OR SAFETY FENCE. Nets must extend from side bar to top of cage. Nets must be securely fastened. One corner shall have a quick disconnect for an emergency exit. If carrying a copilot, nets must also be on passenger side. Center-seaters must use netting on both sides. Vehicles with factory doors and windows must cover the window area. Arm Restraints will be allowed but must be IN ADDITION TO the required safety netting.
11. All side and rear glass must be removed from the vehicle. Door windows must be REMOVED, NOT ROLLED DOWN. Windshield in non-removable hard tops must be left in for structural integrity.

ELECTRICAL

1. Every vehicle must have an ignition kill switch within reach of the driver while he/she is securely fastened in the harness. Electric fuel pumps and magnetos must be wired to the kill switch. The kill switch must be clearly labeled: KILL SWITCH, ON and OFF. NO KEY TYPE KILL SWITCHES PERMITTED.
2. It is PREFERRED that all vehicles have a battery disconnect switch located at the right rear of the vehicle. The switch must completely disconnect the battery. The switch must be wired in such a manner as to disconnect the battery and kill the engine. Switch must be clearly labeled KILL SWITCH, ON and OFF.
3. All vehicles with automatic transmissions and clutch automatics must have a neutral safety switch. THIS IS MANDATORY.
4. All batteries must be contained within the body of the vehicle and be securely mounted. All batteries outside the engine compartment must be in a marine type battery box. All batteries must be secured by an automotive type hold down device.

FUEL SYSTEMS

1. All fuel tanks, pumps and fuel lines must be located outside the driver's compartment. All fuel tanks must be protected from collision.
2. Spare gas cans are not permitted.
3. Carburetor must have a flash shield or air cleaner.
4. All fuel caps must be secured in a manner as not to come open from vibration or roll over.
5. Two (2) throttle return springs are mandatory

ROLL CAGES

1. Roll cages shall be of sufficient strength to protect vehicle occupants in all reasonable circumstances and all cages must be attached to the frame.

- a. All parts of roll cages must be steel 1-1/2" O.D. with .120 wall thickness minimum. Chrome-molly seamless tubing must be 1-5/8" with .090 wall thickness. Rear hoops on cage must extend above driver's head. Note: all newly constructed vehicles must be made with minimum 1 5/8" O.D. steel pipe with .120 wall thickness.
- b. Square tubing is not permitted.
- c. All joints must be completely welded.
- d. The top four corners of the cage must be rounded. No welded tube corners will be allowed.
- e. Excessive grinding of welds is not permitted. All welded joints must be exposed for inspection, with no padding or tape covering the welds.
- f. No threaded pipe or threaded pipe joints of any kind permitted.
- g. All vehicles must have the roll cage attached to the frame at the supporting post positions of the front and rear hoops of the cage. The cage must be directly attached to the frame or mounted indirectly to the frame with a minimum of 1/4" thick by 2" wide steel - gusseted to cage and frame. It must be mounted with a minimum of two (2) grade 5 or better 3/8" or larger bolts on each mounting point.
- h. A minimum of 3/8" bolts, grade 5 hardness, must be used throughout the roll cage and side bar.
- i. A side bar shall be securely mounted to the driver's outer side of the cage to protect the driver from a side roll and trees. Vehicles with factory Steel doors do not need side bars. If carrying a co-pilot a side bar is required on the passenger side mounted in the same manner as on the driver's side. All center seaters are required to have side bars on both sides.
- j. It is mandatory that all vehicles have at least one (1) diagonal bar, preferably a full "X" brace, located behind the driver.

CLASSIFICATIONS

These classifications are for the 3 1/2 Miler, Coal Bucket, and 7 Miler only.

ATV Requirements

1. All ATV's must have fully functional front and rear brakes capable of bringing the vehicle to a complete stop.
2. All vehicles will be checked for the following items:
 - a) Frames will be checked for stress cracks or any ill repaired damage.
 - b) Worn swing arm bushings.
 - c) Tight Steering
 - d) Acceptable tires.
 - e) Chain tension.

3. Tether switches are highly recommended.

3 WHEELER

Must be a three wheeler, any C.C. engine, 2 or 4 stroke.

4 STROKE ATV

Must be a four wheeler, any C.C. engine using a cam and valve arrangement running with pump gas or racing fuel. NO MIXING OIL IN THE FUEL.

2 STROKE ATV

Must be a four wheeler, any C.C. engine using a PORTING system NOT A CAM AND VALVES. Fuel must be mixed in ratios or utilize oil injection.

4x4 - 4 WHEEL DRIVE ATV

Any ATV utilizing 4 wheel drive or having 4 wheel drive capabilities. Can use any engine size, any fuel combination.

UTV

- a) Four point harness restraints, securely fastened on both occupants at all times;
- b) Full roll cages;
- c) Side nets;
- d) Doors;
- e) Fire extinguisher clearly mounted and easily retrievable by officials/the public; and

The following gear is required for all competitors.

- a) Helmets;
- b) Protective eyewear;
- c) Pants and long sleeve shirt.

4X4 CLASSIFICATION 4X4 LIMITED

- a. Must have stock frame
- b. Must retain stock engine location
- c. Suspension type must remain O.E.M. (If the vehicle came with leaf springs front and rear, it must remain that way. If it came with leaf springs rear and coil spring and radius arm front, it has to retain that to be eligible).

- d. Front Suspension limited to a maximum of 5 in. of up travel when bump stop is compressed. This will be measured when vehicle is at ride height from top of front of rear to compressed bump stop.
- e. Rear suspension must be O.E.M (Ref. Rule c.) Rear suspension travel is not limited.
- f. Any engine size is allowed so long as it remains in the same location as O.E.M. engine with original mountings.
- g. Frame gusseting is allowed.
- h. Any # of shocks is allowed.
- i. No types of reservoir shocks are allowed. Remote or piggyback.

4X4 CLASSIFICATION

4 cyl. - Must be powered by a 4 cylinder engine. Unlimited modifications.

6 cyl. - Must be powered by a 6 cylinder engine. Unlimited modifications.

8 cyl. - Must be powered by a 8 cylinder engine. Unlimited modifications.

LWB - Wheel base dimension to separate long from short.

Any vehicle with wheel base of 102 inches and up will race in LWB class. Any LWB competitor may race in a short wheel base class. No short wheel base vehicles may compete in LWB class.

OUT ON THE RACE TRACK

When you are out on the race track act with sportsmanship. If someone comes up behind you and blows their horn or nudges you, please have enough courtesy to find a spot to pull over and let them pass. When someone comes behind you, let them know that you know that they are there. Wave or something, just give them a sign that you are looking for a place to pull over. You must STOP at every check point and tell the workers your number. REMEMBER (this was written earlier in the rule book) you are responsible for your number.

You are to have only (1) number on your vehicle. Number plates are required. If you don't come to a complete stop you will get (5) five minutes added to your time for every time you don't stop.

At the hill climb you are allowed three (3) chances to make the top. If you cannot make it and there is someone waiting, show some sportsmanship, move over and let them thru. If you break down there will be someone there to pull you off the track, out of the way. There are by-passes around the hill if you cannot make the hill. These exact details of the by-pass routes and penalties will be addressed at each race. If you are caught with your race vehicle on the highway the police will arrest you. The Line Mountain 4 Wheelers do not overrule the police. The fine you receive will be yours to pay.

At the finish line, stop and tell the official your number. That will end one lap and start your next. Cross the incoming driveway at a reasonable speed. If you wish to pit go to the far lane and do so. That is where you make any necessary repairs and it is the ONLY place you may refuel. Your time continues when you are in the pits. If you don't pit and take your racer to your camp we will consider you broke down and out of the race.

After you have finished all your laps, pull over, away from the finish line, remove your number plate and give it to a finish line official.

When you are finished racing, take your racer to your camp and park it. This is where it will stay until the next event. There will be no driving around the campsite. If you are caught driving around we will either add a penalty to your time or disqualify you completely.

Another REMINDER: Do not use your racer to go down the highway to retrieve another racer. State police do patrol the lower road. Any fine you get is yours to pay. NOT THE CLUBS.

After the race is declared over, your machine will remain parked at your campsite. If your racer is stopped and you are told to park it and you refuse, or let someone else ride around with it you will forfeit any winnings you may have had. THIS MEANS ALL RACERS: BUGGY, 4X4, AND ATV'S.

The only time we want to see your machine moving is for inspection, getting in line to race and going back to your campsite after you have finished.

After the race is declared over is the only time you may go back out on the track to retrieve a broken down vehicle. Please do not gather your friends and try to recover your vehicle during the race. This will only place your friends in danger of being injured and has the possibility of causing more damage to your racer.

Please don't come to the tower during the race to find out your time. Don't send a friend. Anybody asking for a time during the race will get (10) ten minutes added to their time.

REMEMBER - It is advisable to leave your vehicles parked at the campsite and walk to all check points. The State Police have been known to ticket or tow all vehicles parked along the lower road. When walking to a check point PLEASE don't walk across someone's lawn. If a racer comes to the start line with profanity of any sorts or any distasteful phrases written on their vehicle, that person and vehicle will not be allowed to race in that event. Please have some respect for the people watching.

BUGGIES

2 Wheel Drive Vehicle Classification

Class 2A - 0-1600 Stock

ALSO SEE GENERAL RULES

1. FRONT END AND SUSPENSION COMPONENTS: Type 1 ball joint or link pins. Any tie rod and tie rod ends allowed. Front torsion tubes may be additionally supported or replaced. Front axle torsion tube centers may be cut, rotated and re-welded to increase ground clearance. Sway bars may be removed. Any manufacturer's front/rear torsion bars allowed. Front/rear torsion adjusters allowed. Front end must remain stock Type 1 width. Steering open. Front shock towers may be modified, extended or replaced. Trailing arms (torsion arms) must be stock Type 1 style plus or minus (+ or -) one (1) inch. May be reinforced. Stock mounting stud on bottom trailing arm may be increased in size or relocated. Suspension limiters allowed. Spindles may be reinforced, modified or replaced. No power steering.
2. REAR SUSPENSION: Type 1 IRS or Swing Axles. IRS swing arms may be modified for strengthening purposes as long as stock IRS style swing arms are retained plus or minus (+ or -) one (1) inch. The stock dimensions between the center line of the torsion housing to center line of the rear stub axle is 16.250" plus or minus (+ or-) one (1) inch. Outboard bus reduction gears are allowed. Any manufacturer's VW replacement axles, rear torsion bars, however original type suspensions must be additionally supported or

replaced but must retain Type 1 track as measured from the backing plate flange to the backing plate flange. 51”

3. No limit on number of shock absorbers and size of shock absorbers. Cooling fins allowed.
4. Any manufacture and size tires and rims allowed. (no smooth tires, no tire chains).
5. Functioning 4 wheel brakes are required. (Drum brakes only) Must be a controlled stop at inspection.
6. Battery ignition only. No magnetos. Six or twelve volt system may be used regardless of year model. Any manufacture distributor may be used. Any VW type alternator generator system in stock location may be utilized.
7. Engine must utilize VW series Type 1, 1600 cc US model sedan components and dimensions. The maximum allowable engine displacement is 1600 cc. Any manufacturer's engine bearing allowed as long as stock dimensions are maintained. Any VW modifications may be made to the stock case. Intake manifold must be stock. However, cutting of the manifold to compensate for head milling is allowed: re-welding will not be allowed. Those manifolds which have been cut and re-welded must be cut again, and assembled by use of rubber hose and clamps, or by some other suitable method so that the interior of the manifold can be inspected during technical inspection. No chemical milling of manifold or carb. Automatic choke housing may be removed. Choke plate and shaft may be removed and the holes plugged. Electric needle valve optional. The stock float bowl may be incorporated. Any air main jet. Any combination of stock fuel pump or electric pump may be used. Heater tubes optional. Aftermarket fan shrouds allowed.
8. TRANSMISSIONS: Must be VW type 1 or type 2-3 transaxle housing. Not more than four forward speeds. All internal modifications are OK. Any gear ratio combinations may be used. Must be stock VW housing with internal modifications only. May use aftermarket side covers.
9. OIL COOLERS: Any manufacture oil cooler is allowed. Location is optional. Full flow system is allowed. No deep sumps or dry sumps are allowed.
10. Any fuel may be used except nitro or alcohol.
11. All vehicles of 2 wheel drive (buggies) will weigh a minimum of 1300 lbs. These vehicles must be an opened wheeled vehicle.
 - A. The case may be align-bored and machine for cam bearings.
 - B. The case may be drilled and tapped for oil pressure and/or temperature sending units.
 - C. The case may be machined to allow the installation of a crank pulley seal. D. Case savers may be installed for cylinder head studs.
 - D. Case savers may be machined for cylinder headstuds.
 - E. Cylinder seating surfaces may be machined.
 - F. Early case oil galleries (8 mm) may be enlarged to the dimensions of the universal case (10 mm.)
 - G. Threaded oil gallery plugs allowed.

Windage trays are allowed, The use of any oil by pass, pistons and springs are allowed. Pistons must be stock 3 ring only. Pistons and cylinders may be any manufacturer as long as the original stock dimensions and balanced weigh are maintained. Any type wrist pin retainers. Piston assemblies may be statically balanced to the equivalent weight in grams of the lightest original non-balanced piston, wrist pin, etc. Flywheel, clutch and pressure plate crankshaft, pulley, connection rods and piston assemblies may be balanced. Balanced limitations are specified under the individual items.

Crankshaft must be stock VW. Power pulleys and sand seals are allowed. No polishing or lightening. Any VW flywheel may be balanced and lightened. Any manufacture clutch disc or pressure plate allowed. May be eight dowel pinned and any brand nut and washer. Connecting rods may be statically balanced, but not polished or profiled. Balanced weigh of connecting rods in grams must be equivalent to the lightest original non-balanced stock rod.

Heads must be US sedan stock single or dual port, or the Brazil manufactured head with the VW insignia. Heads may not be altered. No porting or polishing allowed. Camshaft must be stock and stock dimensions must be maintained, Valves must be stock, 45 degrees. One piece valve allowed. No steel, bronze, or cast iron. No grinding or polishing in the port, including valve guides. Any shaft may be used which will allow the use of the standard stock VW rocker arm(s). The rocker arm(s) may be resurfaced to permit the use of (swivel feet) or similar devices. Clarification: 1.1-1 rockers only. No other grinding or changes to the rocker arm(s) are permitted. No roller or needle bearings will be allowed either as part of the shaft or as an interface between the rocker arm(s) and the shaft. Push rods and push rod tubes may be of any manufacture and clips may be tie wired. Rocker assemblies subject to examination. Valve covers may be of any manufacturer. Air cleaner may be of any manufacturer, location optional. Velocity stacks may be used providing they are not welded or bonded to the carburetor. Any stock VW carburetor or stock replacement may be used and engine must be naturally aspirated.

2C – MODIFIED
Comparable to SCORE class 10
ALSO SEE GENERAL RULES

1. Any type fuel or additive may be used except nitro or alcohol. These are prohibited.
2. Any engine may be used providing:
 - A. It must not have displaced more than 2000 cc. (122 c.i.) in the stock form.
 - B. It retains a maximum of two (2) valves per cylinder.
 - C. Must not displace more than 1650cc (100.7 ci.)
 - D. Rotary piston engines are not permitted in this class.

Any make carburetor may be used providing:

- A. It retains a maximum of 2 (two) venturies per carburetor.
- B. Maximum allowable carburetor venturi size of 48 mm per throat.
- C. Carburetors must be of the automotive production type.
- D. It has no modifications in the venturi or throttle blade area.

3. Brakes open; functioning 4 wheel brakes are required. Controlled stop at inspection.
4. All vehicles of 2 wheel drive (buggies) will weigh a minimum of 1300 lbs. without driver. These vehicles must be an opened wheeled vehicle.
5. Suspension open.
6. Steering open.
7. Engine must be air cooled and naturally aspirated.

2D - OPEN (Super Modified)
Comparable to SCORE class I
ALSO SEE GENERAL RULES

1. No engine, transmission, or drive train limitations.
2. Any type fuel or additives may be used except nitro or alcohol. These are prohibited.
3. Brakes open; functioning 4 wheel brakes are required. Controlled stop at inspection.
4. Must be open wheel type vehicle.
5. All vehicles of 2 wheel drive (buggies) will weigh a minimum of 1300 lbs. without driver.
6. Suspension open.
7. Steering open.
8. Engine must be air cooled and naturally aspirated.

2E – OPEN
WATER COOLED
ALSO SEE GENERAL RULES

1. No engine, transmission, or drive train limitations.
2. Any type fuel or additives may be used except nitro or alcohol. These are prohibited.
3. Brakes open; functioning 4 wheel brakes are required. Controlled stop at inspection.
4. Must be open wheel type vehicle.
5. All vehicles of 2 wheel drive (buggies) will weigh a minimum of 1300 lbs. without driver.
6. Suspension open.
7. Steering open.

8. Engine must be water-cooled.

**BUGGY RULES - 2 WHEEL DRIVE
CONSTRUCTION RULES
ALSO SEE GENERAL RULES**

1. All vehicles of 2 wheel drive (buggies) will weigh a minimum of 1300 lbs, without driver. These vehicles must be an opened wheeled vehicle.
2. All cages (steel, chrome-moly) will be a minimum of 1 1/2" diameter with a minimum of .090 wall thickness and securely constructed. All cages will be composed of a minimum of 2 hoops (one in front of the driver and one to the rear) 2 supporting back braces, and diagonal down bar from the top corner of the hoop behind the driver and at no time will any portion of the driver extend beyond the confines of the cage. Driver will be eligible for disciplinary action should the latter occur. All cages will be attached directly to the frame. The inspectors can reject any vehicles if they feel the cage is unsafe for any reason. Vehicles rejected for unsafe cages will not be allowed to compete. One time warning rule is NOT in effect for unsafe cages, no matter how far the driver has traveled.
3. 2 Wheel drive cars shall have a maximum of 24 x 24 inch opening on both sides of the driver's compartment. Meaning most cars will have to add an extra roof bar and/or shoulder side bar.
4. Functioning 4 wheel brakes are required.
5. Floors must be metal (aluminum or steel) with a minimum 18 gauge thickness (22 gauge if factory VW floor.) Six 2" drain holes are permitted. All floors must extend from front of pedals to torsion housing. Floors made of screen or perforated metal are not allowed.
6. Roofs are required. Materials must be of fiberglass or sheet metal and be securely fastened. (NO WIRE TIES).
7. Sides are required from torsion housing to the front. Sides must be of solid metal or fiberglass and securely fastened. (NO WIRE TIES) Body will fully enclose the car from the torsion to the front. Sides must be solid metal or fiberglass of substantial gauge to withstand a direct hit. Hoods are recommended.
8. Gas tanks must be located to the rear of the vehicle and be properly secured. Fuel cells are highly recommended. Gas caps must be secured in a manner so that it cannot be simply turned off like a bottle cap (tape it, wire it, etc.). Tank or fuel cell shall be vented so as to prevent spillage and to direct drippings away from the driver, electrical components, or exhaust pipes during a full or partial rollover. Venting shall be by means of a gas hose with an extend to the rear passenger side of the vehicle and exit below the bottom of the tank or fuel cell. Vent outlet shall be no larger than 1/4". NO VENTED CAPS.
9. Front torsion tubes will suffice as a bumper as long as the tubes provide a smooth surface with which to contact another vehicle. There must be no protrusions from the front, rear or sides.
10. A firewall must extend from the floor to shoulder height of the driver, and must extend at least 3 inches above the fill spout of the gas tank or fuel cell. It must be adequate to protect the driver's compartment from engine fire.
11. ALL 2 wheel drive vehicles must be equipped with a quick release NHRA approved 3 point (minimum) seat belt for the driver. If seat is in a reclining position, there must also be a NHRA approved crotch strap. Frayed, worn or aged belts will not be accepted. Seat belts must be a minimum of 3" wide. All

belts must be fastened to a structural member. Such member must have strength equal to or greater than the strength of the cage. Belt mounts must be attached by a minimum of 3/8" grade 5 bolts. NO CHAIN ATTACHMENTS. Belt mounts bolted to a single layer of body sheet metal will not be permitted. When belt mounts are bolted to the body there must be reinforcement of the body by means of a structural member that is equal to the cage in strength.

12. All 2 wheel drive vehicles will have approved safety netting on drivers side. Single-seat vehicles must have approved safety netting on both sides of the vehicle. Netting must be securely fastened, with one or two corners detachable for emergency escape. On large openings the net shall be strategically placed. All safety equipment is required any time the vehicle is on the course. Nets required on both sides with co-pilot.
13. There must be a minimum of three (3) vehicles to make a class. Otherwise, the class will be included in the next higher class in which the vehicle is legal.
14. All 2 wheel drive vehicles will have their running number on both sides of the vehicle, minimum of shoulder high. Also required is the number facing to the rear. Numbers are a minimum of Eight (8) inches high, black on white background. Any vehicle without the required spots for numbers will not be scored.
15. Any vehicle is subject to technical inspection by LM4W officials anytime.
16. NO flashing lights of any type on any vehicle.
17. NO whip antennas.
18. All vehicles must have a clearly marked on/off kill switch.
19. All drivers will wear a long sleeved shirt, long pants, and tight fitting ankle high shoes. Fire proof clothing is highly recommended. This rule will be enforced any time the vehicle is on the course.
20. Each vehicle will carry, attached to the vehicle, in plain view, a fully charged 2 1/2 lb. minimum dry chemical, Halon (with seal intact), or CO2 fire extinguisher with a dial gauge, approved by ICC, UL or Coast Guard, and equipped with a suitable quick release bracket.
21. Batteries in driver's compartment (or wherever the driver is exposed to acid) must be enclosed by a marine box with a metal hold-down. All batteries must be encircled hold down device that is securely bolted or welded in place.
22. Rear view mirror mandatory.
23. Horn mandatory.