



**General  
Regulations  
for  
Rallies**

**2011**

**GRR Section 4**

**RallyMoto(TM) Regulations**

**RallyM**  **t** <sup>TM</sup>

Notice: The term “RallyMoto(TM)” refers to NASA Rally Sport’s program allowing motorcycles to compete in a stage rally format. RallyMoto(TM) is the NASA Rally Sport’s brand of this kind of competition. Be sure to use the (TM) when referring to the program.

## **1 Motorcycle Eligibility**

### **1.1 Motorcycle Registration**

Each motorcycle entered in a NASA Rally Sport event must have a current and valid motorcycle registration.

### **1.2 Street Legality**

Every motorcycle must carry all the equipment required by State and Federal laws to operate on the public highways of the state within which the rally is occurring. Required equipment must be operational at the beginning of the event and should remain operational throughout the running of the event. Any modifications authorized by these rules must still be street legal.

### **1.3 Motorcycle Insurance**

All motorcycles entered must have coverage meeting or exceeding the minimum insurance coverage levels required by the state in which the motorcycle is registered.

### **1.4 Motorcycle Eligibility**

Motorcycles eligible for events must be production based two wheel vehicles. Custom bikes specially built from the ground up for competition use are prohibited. To this end, the frame must remain original but may be modified to accommodate authorized additional equipment. Exterior panels, including fenders and cowlings, must be present and visually similar to the original components.

No motorcycles with two stroke engines are permitted.

Sport bikes are prohibited, only upright seating style bikes are permitted.

Side cars are prohibited.

## **2 Vehicle Preparation Regulations**

All motorcycles must meet these NASA Rally Sport RallyMoto(TM) Regulations. Each series or event may impose additional regulations.

### **2.1 General Requirements**

Checks may occur at any time during the rally for the proper functioning of any equipment listed in these General Requirements. At any moment during the event it is each competitor's responsibility to prove to technical stewards or sporting stewards that their motorcycle conforms to the regulations in their entirety.

### **2.2 Lights**

- a) One headlight minimum.
- b) A red rear light and brake light.
- c) A FIM-homologated rear stop light is recommended.
- d) All motorcycles must have two front and two rear turn signals regardless of the state in which they are registered.

The headlight and taillight must be switched on throughout the race so as to facilitate overtaking of and by other competitors or organizers vehicles. Failure to respect this regulation will result in a one minute penalty per stage or transit where it is observed. All competitors are expected to carry necessary spares.

### **2.3 Wheels and Tires**

#### **2.3.1 Wheels**

- a) The wheels are free, regarding the maximum and minimum diameter and width.
- b) Wheels made from forged magnesium are forbidden (including OEM magnesium wheels).

#### **2.3.2 Tires for Gravel/Sand/Unpaved Events**

- a) The choice of tire is free.
- b) Inner tubes are allowed.
- c) The use of studded tires is forbidden for non-snow/ice events.
- d) The use of any device for maintaining the performance of the tire with an internal pressure equal to or less than the atmospheric pressure is forbidden. Mousse, Tireballs, or other non-standard inflation systems are prohibited.
- e) The interior of the tire (either within the inner tube or the space between the rim and internal part of the tire) must be filled only with air or nitrogen.

### **2.3.3 Tires for Tarmac Events**

Tarmac events will be limited by the following additional restrictions. All tires must be designed to work in a rain environment. *Examples* of legal tarmac tires are: Pirelli MT 90 A/T Scorpion, Michelin Anakee, Metzeler Tourance, Continental TKC-80, Pirelli MT60-R.

Tire choice is restricted:

- a. No racing slicks
- b. No knobbies
- c. No DOT knobbies
- d. The stock tire pattern must have grooves that begin within three quarters of an inch of the usable edge of the tire.
- e. Inner tubes are allowed.
- f) The use of studded tires is forbidden.
- g) Tarmac tires that are “full-dirt” or “100% dirt” are are forbidden.
- h) Tarmac tires that are “full-street” or “100% street” are forbidden.
- i) The use of any device for maintaining the performance of the tire with an internal pressure equal to or less than the atmospheric pressure is forbidden. Mousse, Tireballs, or other non-standard inflation systems are prohibited.
- j) The interior of the tire (either within the inner tube or the space between the rim and internal part of the tire) must be filled only with air or nitrogen.

### **2.3.4 Tires for Snow/Ice Events**

- a) The choice of tire is free.
- b) Inner tubes are allowed.
- c) The use of studded tires is allowed.
- d) Stud length, as measured from the outer surface of the tire, is unrestricted.
- e) Studs must be installed from the outside of the tire without piercing the inner wall of the tire.
- f) The quantity of studs installed is unrestricted.
- g) The use of any device for maintaining the performance of the tire with an internal pressure equal to or less than the atmospheric pressure is forbidden. Mousse, Tireballs, or other non-standard inflation systems are prohibited.
- h) The interior of the tire (either within the inner tube or the space between the rim and internal part of the tire) must be filled only with air or nitrogen.

## **2.4 Exhaust System**

Even where the GRRs for a class authorize the replacement of the original silencer or complete exhaust system, motorcycles participating on an event run on public roads must always be fitted with an exhaust silencer that conforms to the State and Federal regulations.

Any hot tubes must be efficiently protected so as to not to cause burns.

Exhaust systems must not be of a temporary nature. Exhaust gases must exit at the extremity of the system.

Parts of the frame may not be used to carry exhaust gases.

Spark arrestors are not required.

Noise limit testing procedure will be per SAE J2825. The maximum permitted noise level from the exhaust shall be 92db (A scale) at idle. During a slow RPM increase to 3500 the limit is 96 db (A scale). The measurement will be taken at a distance of 20 inches from the bike in an area 45 degrees either side from the centerline of the exhaust outlet.

## **2.5 Identification**

Each motorcycle shall provide a 5" high by 8.5" wide space on each side of the motorcycle for identification numbers. The organizer will provide numbers to be affixed to these spaces. Any other large numbers on the bike must be covered.

No indication of class is required.

## **2.6 Miscellaneous**

- a) A horn with a 90 Db minimum noise level is required.
- b) A rear mirror is required.

## **2.7 Navigation**

The following devices and items are allowed for use in navigating the course:

- a) The organizer-supplied 2.25" roll chart.
- b) The organizer-supplied route book.
- c) The stock odometer.
- d) An auxiliary odometer with visual output may be added or may replace the stock odometer. It is allowable that this additional odometer can be calibrated.
- e) Paper maps.
- f) GPS devices.

## **2.8 Engine**

The lower engine cases and crankshaft must be from a production engine. Preparation is free. Repairs during the race are free.

## **2.9 Frame**

The materials for frame construction are free, with the exception of titanium being excluded. Titanium is allowed for the rear sub-frame and seat support if originally specified by the manufacturer.

## **2.10 Modifications**

Modifications not restricted elsewhere are free.

## 3 Classes

Six classes exist for motorcycles:

<b>Class</b>	<b>Displacement in cm<sup>3</sup></b>	<b>Rules To Use</b>
Heavy	Above 750.1	3.1 Modified Class
Medium	Between 450.1 and 750	3.1 Modified Class
Dakar	Between 385.1 and 450	3.1 Modified Class
Lite	385 or less	3.1 Modified Class
Adventure Heavy	Above 750.1	3.2 Adventure Class
Adventure Lite	750 and below	3.2 Adventure Class

### 3.1 Modified Class

This is the default class which all motorcycles and all people fall into. Season points will be awarded within these classes.

#### 3.1.1 Dakar Class

All front wheels will be 21". Using a different wheel size will result in the entrant moving out of Dakar class and into the Medium class.

### 3.2 Adventure Class

This class is for riders who are new to this sport. A rider may compete in the Adventure classes only during their first four rallies. No rider is required to enter an Adventure class, even if they are eligible. Season points are not awarded or tracked, as it is possible that a person will lose the right to compete within this class mid-season.

Eligibility expires after four rallies, whether or not the rider has entered in an Adventure class at any of those events. Eligibility also expires if the competitor places in the top third of the overall motorcycle results.

There is no difference in bike preparation rules between Modified and Adventure class.

Adventure Heavy and Adventure Lite will be combined into one class unless there are four or more entrants who would qualify for Adventure Heavy.

## **4 Safety Requirements**

### **4.1 Road Worthiness**

All competing vehicles must be roadworthy and, the following items in particular must be adequate and functioning properly:

- a) All brakes
- b) Horn
- c) Headlight and taillight
- d) Tires
- e) Exhaust system
- f) Front and rear indicators

### **4.2 Transporting Items**

It is understood that within these rules, when referring to items, the word “carry” can mean any of the following:

- stowed within a compartment attached to the motorcycle
- attached to the motorcycle
- carried within the clothing worn by the rider
- carried within a pack worn by the rider

If the item is not to be stowed within a compartment or affixed to the motorcycle, the rider must present at scrutineering all clothing or packs to be used.

### **4.3 First Aid Kit**

A comprehensive first aid kit shall be carried. The first aid kit at a minimum must include:

- a) Antiseptic (ointment or liquid)
- b) Gauze pads or rolls
- c) Adhesive tape
- d) Arm sling
- e) Safety pins
- f) Scissors
- g) one “space blanket”
- h) First aid manual.

### **4.4 Warning Devices**

The rider must carry one standard, full-sized, warning triangle meeting Federal Motor Vehicle Safety Standard #125.

Each rider must carry a full color laminated 8.5”x11” ‘Green OK / Red Cross’ paper. The design must meet GRR Appendix A11 and A12, and is to be supplied by the rider. Printing Appendices A11 and A12 and laminating them is sufficient.

The rider must demonstrate that it is possible to remove the warning devices from their storage location in under 30 seconds when the rider is in full gear.

## 4.5 Auxiliary Fuel

It is not permitted to carry fuel either within a pack worn by the rider or within the rider's clothing. Any auxiliary fuel tank must be mounted to the motorcycle.

## 4.6 Helmets

All helmets must be full-face **non-hinged** helmets. Certifications accepted are:

- a) USA SNELL M 2000
- b) **USA DOT**
- c) Europe ECE 22-04
- d) Europe ECE 22-05 'P'
- e) Great-Britain BS 6658 GRADE A
- f) Japan JIS T 8133 : 2000

## 4.7 Body Protection

Over the entire route wearing of back and front body armor is compulsory. Over the entire route the wearing of back and/or neck protectors is strongly recommended.

For paved events, full leathers with armor are highly recommended. Standard nylon mesh pants are not permitted. The preferred materials if leather is not used are Cordura or Kevlar with a Denier measurement of 1000 or better. In all cases where the pants and jacket are two separate pieces the two pieces must attach to each other securely. Also permitted are:

- Kevlar race suits
- heavy duty (enduro) jacket
- motocross pants with armor

## 4.8 Boots

Motocross-style boots must be worn. Construction boots, road boots, touring boots, road racing boots, or similar are not acceptable.

## 4.9 Equipment for Night Stages

In order to compete on a stage, when the rider's ideal start time is after 15 minutes before civil twilight the rider must use any one of the following:

- a) Reflective tape with at least 10 square inches on the front and rear of the torso. Additional material on the helmet and motorcycle is recommended. If the rider is carrying a backpack, the pack must either have its own reflective material or not obscure the reflective material of the jacket. Example of acceptable material: 3M Scotchlite.
- b) A pair of lighting sources whose energy source is independent of the motorcycle, such as flashing bicycle lights or glow sticks, to be affixed to the rider somewhere above the waist.
- c) A "no motion" detector device. Example: American Airworks Super Pass II.

Riders without this equipment will transit the stage and be assigned the time of the slowest competing motorcycle.

## **5 GRR Applicability**

The entirety of the GRR, excluding Section 3 (the technical regulations for four wheeled automobiles), shall apply to RallyMoto(TM) competitors. While the GRR Sections 1 and 2 are written to be "vehicle-neutral" with respect to the wording of "car" versus "motorcycle" it is to be understood that the all GRRs concepts apply to motorcycle riders. It is to be understood that the single RallyMoto(TM) competitor is also the driver and the navigator, as applicable, and thus constitutes the Crew or Team, when considering Section 1 and Section 2.

Common sense exceptions:

2.17.7.1 – Warning Triangles. As the rider has only one triangle, the rider must place their only triangle 150' behind the bike.