

## RR 13 UEM STANDARDS FOR DRAG BIKE STRIPS 2011

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Everything printed in **BOLD** is new or changed for **2011**.

Where is written "he" or "his", it means also "she" or "hers".

## RR13.1 GENERAL

### RR13.1.1 Object and Aims

The "General Drag strip Standards for UEM Drag Bike Championships" lay down the conditions that must be met by a drag strip in order to obtain the homologation of the UEM.

The Jury President must carry out an inspection of the strips before each European Championship event and ensure that all requirements for the track license are fulfilled.

### RR13.1.2 Field of Application

There are three types of drag strips,

Type A: For all newly constructed drag strips inspected after 1 Jan 2006 that are to host a European championship

Type B: Drag strips that have valid track licenses for a European championship earlier than 1 Jan 2006.

Type C: Recommendations for other drag strips that have not previously hosted a European championship or for drag strips hosting a Snowmobile championship. In the case that a new track wants to have a championship race then these types of tracks can be used for the first homologation period.

Type G: For Snowmobile tracks temporary build for racing on grass. This kind of tracks can be different in special parts than other kind of tracks.

Type S: For Snowmobile tracks temporary build for racing on snow. This kind of tracks can be different in special parts than other kind of tracks.

A drag strip can be permanent, semi-permanent or temporary.

### RR13.1.3 Date of Application

The standards will come into force on January 1st, 2011. They replace and cancel all prior publications. Changes may be made to these standards, each time the UEM, according to experience, technical evolution or safety reasons deems it necessary.

### RR13.1.4 Definitions

Name	Definition
Race track	The whole area with public parking and grandstands
Paddock (pit)	The area where all motorcycles are situated between each round
Up line area	The area that is used for waiting before the start
Drag strip	The area from the starting up area to the finish of the braking area
Track	The part of the track where acceleration takes place
Braking area (shut off area)	The part after the finish line that used for braking and deceleration
Emergency braking area	Used in case the first braking area is not sufficient to stop the vehicles
Starting up area	Where the starting of engines prior to the race takes place
Water area	A dedicated area where water is sprayed on the track and is normally the starting point
Burn out area	The area between the water and the starting line
Pre Stage line	The first beam of the photocells
Stage line	The beam that indicates that the motorcycle is ready to start
Starting line	The actual starting line
Foul start beam	The beam that indicates a foul start
Sixty foot line	A beam located 60 foot after the starting line
Finish line	The line that indicates the finish
Speed trap	A part of the track used for measuring top speed
Return road	The part of the facility used for towing or returning to the paddock after the race

## RR13.2 DRAG STRIP LAYOUT

### RR13.2.1 General Principles

The drag strip should be straight throughout with, for drag race applications, two lanes clearly identified. The drag strip should be divided into a timed and braking or shutdown area. The braking area can be divided in a primary and an emergency area.

### RR13.2.2 Length of the Strip

The strip should have a timed distance of 201.16 m (1/8 mile) or a timed distance of 402.33 m (1/4 mile). In special cases can 304,8 m (1000 ft) be used

For type A: The minimum braking area for a 201.16 m strip must be 500m plus emergency area and for a 402.33m drag strip a minimum of 700 m plus emergency area. If the braking area ends in an unmovable object then the length should be a minimum of 900 m.

For type B and type C: The minimum braking area should be 500 m for a 201.16 m drag strip and for 402.33 m must be 600 m. Final determination of the braking area is to be determined by the inspection of the track. Changes in these requirements can occur due to other issues determined during inspection of the track. It is possible to have different braking length depending on classes, but for Top Fuel Bike and Super Twin Bike the aforementioned regulations are the minimum length.

For type G and S should the length be 152,4 m or 201.16 m and a braking area of more than 250 meter

Behind the start line, there should be an area for preparation, up line area and starting of at least 20 m. This area is restricted other than for officials and racers with their crew. These areas should be clearly marked.

### RR13.2.3 Width of the Strip

For a drag strip, the minimum width is 7 m per lane, total 14 m. The centre of the drag strip and the sides should be clearly identified with white or yellow lines of at least 100 mm. The ideal width is 18 m total. Strips wider than 24 m should have some kind of border to make the racing area 24 m wide.

### RR13.2.4 Longitudinal Profile

The maximum longitudinal gradient for the timed area is 2% and for the braking area 10%. Transversal line between the two edges should not exceed 2%.

## RR13.3 SURFACE

The surface of the track and the primary braking area should be of recognized road construction asphalt, high quality concrete or approved sealed bitumen surface with no holes or depressions.

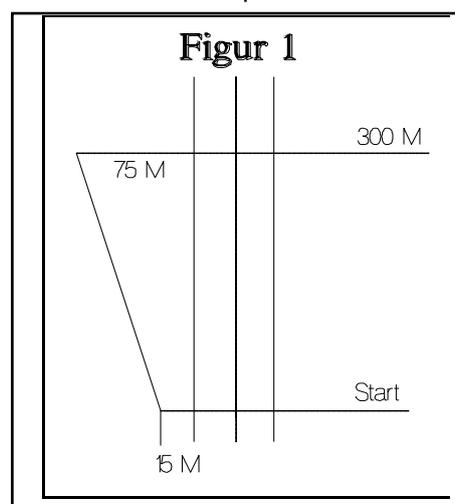
Shoulders and irregular joints are not permitted.

The surface of the track should be cleaned and in the best possible way prepared before the start of a race. The preparation should be made so that the best possible traction is from the start of a championship race until the finish. The preparation should continue during the event and involve degreasing after the finish line of the race track.

No water, oil or liquid should be allowed on the drag strip surface. If the track or braking area is contaminated by oil or water then the race shall stop for cleaning.

For type G shall the surface be of grass or other kind of farmland. All environmental procedures shall be taken to prevent the surface to be contaminated from oil and fuel.

For type S shall the surface be of snow on a flat surface. All environmental procedures shall be taken to prevent the surface to be contaminated from oil and fuel.



## RR13.4 RUN OFF AREAS

For type A there should be concrete walls from the starting area until 400 meter after finish line or to the end of the braking area. Tracks can also be inspected with guardrails of steel but this is not recommended on new tracks.

For type B there should be guardrails or concrete walls at least from the start line to the finish line. If there are no guard rails in the braking area then it must be open to allow a bike to go out to the sides for at least 50 meters on grass or sand with a flat and smooth surface. It is highly recommended that the walls continue as long as possible after the finish line.

For both type A and B then any openings should be overlapped. The height of the walls should be 800 mm or more and it is recommended that the height in the braking area is 1200 mm. Should guard rails be in use then the lower rail must be placed as low as possible to prevent any part of a rider to go under it.

For Type C or G and S : The drag strip can also be of the 'wide open' type. If so, then the run off areas should be as configured in Fig 1.

If a track has guardrails on one side but not on the other then it will be classified as a Type C track

No objects are allowed inside the run off area. The area must be smooth and without any objects. It is recommended that run off areas terminate in further open areas or gravel traps.

## **RR13.5 START LINE**

The start line should be clearly marked on the drag strip. A white line should indicate the start line. It should be placed between the pre stage and the stage line. Behind the start line there should be an area designated for burnouts, and water should be available.

## **RR13.6 FINISH LINE**

The finish line should be clearly and obviously marked. It is recommended that the speed trap in the finish line is marked with diagonal lines that have a different colour from the track.

Timing equipment should be of a safe design and safely located. No hard objects are allowed inside the track. All timing equipment shall be placed outside or along the guard rail. In the middle are only light reflectors on foam cushions allowed.

## **RR13.7 RETURN ROAD**

The return road should be a minimum of 3 meters in width and allows access to pit and starting area. The return road should also have the same standard as the primary braking area of the surface. It is recommended that there are two access points from the braking area to the return road. If the return road is not wide enough for opposing traffic then there should be passing points.

## **RR13.8 CIRCUIT INSTALLATIONS**

### **RR13.8.1 Drivers' Paddock**

The surface of the paddock must be suitable for heavy vehicles to drive on, and if the surface is of grass or similar, this should be notified in the Supplementary Regulations. Access to the paddock should have a minimum clearance of 4.5 m high.

Vehicles should be parked to allow free access at all times, and access for emergency vehicles.

There should be access to the paddock for competitors/crew at all times throughout the timetable of the race.

The following facilities are required:

1. Toilet facilities for both male and female
2. Water supply for both drinking and cleaning purposes
3. First aid facilities
4. Fire fighting facilities
5. Waste and litter bins
6. Waste oilcans
7. Official notice board
8. Showers with hot water

The following facilities are highly recommended:

1. Electrical power supply
2. Public telephones
3. Bar/restaurant facility

Each team should be granted an area of 6 meters width. If more than one team shares the area then it should be doubled. Local restrictions can occur depending on the space in the paddock.

**RR13.8.2 Technical Inspection Area**

There should be designated areas for technical inspection, where administration and technical checks can take place. A board for official notices should be located in this area.

**RR13.8.3 Timing Equipment Room**

The timing equipment should be located in a room close to the start area with a clear and unobstructed view of the track, start line and line up area. The room should be restricted to authorized personnel only. Back up system for electricity shall be in place to prevent power shut downs.

**RR13.8.4 Race Secretary**

Competitors should be able to contact the Race Meeting Secretary at all times.

**RR13.8.5 Observation Post**

There should be an observation post or vehicle located safely in the braking/shut-down area for fire and emergency purposes. They should also be able to help riders to quickly exit the track. There should be telephone or radio links to the start area or the Clerk of the Course.

**RR13.8.6 Communication Service**

The Clerk of the Course should have radio contact with safety and medical personnel. There should be adequate public address system for the public and the competitors' paddock, and any information should be given in several languages and at least in English.

**RR13.8.7 Jury and Race Secretary Room**

A room must be set aside for Jury Meetings, and must be accessible during the event for competitors who wish to make a protest. The room should be clean and either have service personnel present who check this frequently. The room should be equipped with air conditioning if the weather is hot.

**RR13.8.8 Press Facilities**

It is highly recommended that facilities are made available for members of the press, including a room with tables and chairs. If possible there should be telephone, fax and internet facilities available.

**RR13.8.9 Facilities for the Public**

The facilities for the public must comply with national and local building and safety regulations, with particular attention to the following:

1. Car parking and Motorcycle parking
2. First aid facilities
3. Grandstands
4. Toilets
5. Water supply for both drinking and cleaning purposes
6. Waste and litter bins
7. Fire and safety
8. Restaurants and catering

There should be signs on the road to show the access to the track from the when the day of the event starts to the end to allow both riders and public to find the track.

**RR13.9 EMERGENCY EQUIPMENT****RR13.9.1 Medical Services**

All events must have their own medical service, headed by a Chief Medical Officer who is answerable to the Clerk of the Course. This officer will position any medical or paramedical personnel and vehicles where he judges necessary. One ambulance is mandatory and a second ambulance is highly recommended. One of the ambulances should be also placed so that public can get access to it. For more details see the UEM medical code.

**RR13.9.2 Fire-Fighting Service**

A fire-fighting service must be provided on the drag strip and in the competitor's paddock. Each post along the track must be provided with a portable fire extinguisher. One rescue vehicle should be situated in the braking area during racing and qualifying.

One or two persons with extinguishers should be situated in the starting area.

Fire fighting personnel should also be situated in the location of braking area where bikes typically come to rest at end of their run.

### **RR13.9.3 Tow-Away Truck**

A truck or other vehicle for moving broken vehicles should be available. It should have a rope that can be used to help tow riders safely from the track.

### **RR13.9.4 Medical Room**

A room must be at the track that can take care of minor medical problems. The room shall be sufficiently quiet in order that correct use of medical equipment is possible.

## **RR13.10 INSPECTION AND HOMOLOGATION PROCEDURE**

### **RR13.10.1 Definition**

An inspection is a visit by a delegate of the UEM road and Drag racing commission in order to:

- establish the level of safety of a strip and make recommendations in accordance with the rules
- verify or approve work performed on the basis of such recommendations.
- to grant a homologation license

### **RR13.10.2 Inspection Requests Deadline**

A FMN must request the inspection of a strip to UEM Secretariat at least two months before the first UEM race on the track. For type G shall the homologation be done the day before the race or as soon as possible before the race.

### **RR13.10.3 Delegations of Inspection**

The delegations of the inspectors are composed in the following manner:

- one member of the UEM road and Drag racing commission
- a qualified member of the FMNR
- a rider of the FMNR

### **RR13.10.4 Expenses of Inspections**

The FMNR will cover the expenses of the inspector appointed by the UEM to carry out the inspections, using the method of payment established by the UEM. If the FMNR does not pay the inspector directly then the expense should be sent to the UEM.

### **RR13.10.5 Inspection Procedure**

It shall be the duty of the inspectors at all inspections to examine all the installations and the safety features at the circuit and make recommendations where required to ensure that these and the necessary services conform to the rules. **If the inspector wants laser measurement of the track, certified equipment used to measure the track must be provided by the track owner.**

### **RR13.10.6 Inspection Report**

The appointed inspectors will draw up, sign and send to the UEM Secretariat within the 15 days following a circuit inspection, an inspection report in which he will write down the remarks and proposals, or improvements to be made. The result of an inspection if it is approved or approved with remarks must clearly be in the report.

### **RR13.10.7 Homologation of a Circuit**

A circuit complying with all recommendations and conditions of a final inspection report will receive a UEM drag strip license valid for 3 years. The license could be valid from the date of the inspection until first of January 3 years later or from the first of January the next year and 3 more years.

## RR13.11 TIMING EQUIPMENT

### RR13.11.1 Aim

The aim of the timing equipment is to measure the time that it takes for a bike to travel over the length of the drag strip from when it leaves the start line to when the front wheel crosses the finish line. The time should be measured in seconds and the top speed should be measured in km/h (if the general speed in the country is measured in mph then this can be used, but all records will be calculated in km/h by the formula: m/hr \* 1.609 rounded to whole km/h).

### RR13.11.2 Starting Area

The starting area should have 3 photocells: Pre stage, Stage and Start or Guard.

The distance between Pre Stage and Stage should be  $175 \pm 10$  mm, and between Stage and Start/Guard  $400 \pm 10$  mm.

All cables should be placed in such a way that they do not interfere with competitors or the running of the race.

### RR13.11.3 Starting Tree

Distance from start line to tree: 11,5 – 12,5 meter.

Height of tree: 2300 mm  $\pm$ 100 mm from ground to centre of pre-stage bulb.

### RR13.11.4 Finish Area

The finish line photocells should be 402,33m  $\pm$ 100mm (1/4 mile) or 201.16 m  $\pm$ 50 mm (1/8 mile) from the start line. The difference in length of each lane should be 20 mm max. The terminal speed measurement should take place before the finish line preferably, but a speed trap that straddles the finish line is acceptable.

### RR13.11.5 Photocells

All photocells at the start line should be set so that at the centre of each lane the timing beam operates between 30 and 60 mm above the track surface. In cases where there is difficulty achieving this, the 60mm height should take priority.

Photocells for 60 foot time should be 250mm  $\pm$ 20 mm above the track surface.

All other photocells should be 150mm  $\pm$ 20 mm above the track surface. All interval increments and quarter-mile finish lines are measured from the guard beam.

All timing equipment placed in the middle of the track after the 60 foot timing should be made without metallic construction. Foam is recommended. The equipment should be constructed and attached to the track surface in such way that it can be run over or kicked out of position without causing serious damage to the rider/ vehicles.

### RR13.11.6 Registrations of Times

All times shall be registered and stored for qualifications and eliminations.

### RR13.11.7 Starting Tree

For each lane the Starting tree should have:

1 or 2 Lamps to indicate Pre Stage position	(white or yellow)
1 or 2 Lamps to indicate Stage position	(white or yellow)
3 countdown lamps	(yellow)
1 Start lamp	(green)
1 Foul start lamp	(red)

There should also be lamps on the spectator side to make the sequence visible to the public.

### RR13.11.8 Function

Pre Stage: When Pre Stage beam is broken, the Pre Stage lamp lights.

Stage: When Stage beam is broken, the Stage lamp lights.

Start/Guard: If the Stage beam and the Start/Guard beam are broken at the same time, the Stage lamp should turn off.

Pro Start: All 3 count-down lamps should light 0,4 seconds before the Green Start lamp.

- Timing: Timing for each lane should be completely separate. Once the Start sequence has been started, the timing should start when the Stage beam remakes or the Start/Guard beam is broken.
- Foul start: If the Stage lamp remakes or the Start/Guard beam is broken before the Green Start lamp is on, a foul start is indicated by the Red light on the Tree and the Green lamp should not light.  
In eliminations, it should be possible for only one lane to have a Red light.  
In qualifying, it should be possible for both lanes to have Red light.
- Reaction time: Is the time between the start signal being given and the competitor starting the clock, and may be measured either from the Green light signal - where zero is the perfect reaction time - or from the count-down signal - where 0,4 seconds is the perfect reaction time.

### **RR13.11.9 Abort of Start**

It should always be possible for the starter to abort the start. After an abort of the start should no lights be illuminated on the starting tree at all. Abortion of the start is wholly under the control of the starter.

### **RR13.11.10 Specification and Accuracy**

- |                            |  |
|----------------------------|--|
| Pre Stage and Stage Lamps: | Should light 0,1 sec maximum after the beams are broken. |
| Count-down:                | Should have an accuracy of $\pm 0,01$ second.            |
| Timing:                    | Should have an accuracy of $\pm 0,001$ second.           |
| Top speed:                 | Should have an accuracy of $\pm 1$ km/h.                 |
| Win indication:            | Should have an accuracy of $\pm 0,001$ second.           |