



**FIM LAND SPEED WORLD RECORDS  
REGULATIONS**

**2024**

*RÈGLEMENTS FIM DES RECORDS DU MONDE  
DE VITESSE TERRESTRES*

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1	01/01/2024	<p><b><u>Sporting Regulations:</u></b>  Art. 1.3.2, Art. 1.12.1; Art. 1.12.2, Art. 1.14, Art. 1.16.2</p> <p><b><u>Technical Regulations:</u></b>  Art. 2.14.1, 2.14.2</p>
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Articles amended as from 2024 are in **bold type**.  
Articles amended during the season are in **bold red type**.

# FIM LAND SPEED WORLD RECORDS REGULATIONS

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## **GENERAL UNDERTAKINGS AND CONDITIONS**

Any references to the male gender in this document are made solely for the purpose of simplicity, and refer also to the female gender except when the context requires otherwise.

These regulations derogate and supersede all and any other previous regulations in place the years before.

All riders, teams' personnel, officials, organisers and all the persons involved in any capacity whatsoever participating in the FIM Land Speed World Records (hereinafter referred to as the "World Records") undertake, on behalf of themselves, their employees and agents, to observe all the provisions of:

1. SPORTING REGULATIONS
2. TECHNICAL REGULATIONS
3. DISCIPLINARY AND ARBITRATION CODE
4. MEDICAL CODE
5. ANTI-DOPING CODE
6. ENVIRONMENTAL CODE
7. CODE OF ETHICS

as supplemented and amended from time to time (hereinafter referred to as the "Regulations").

Updated versions of the Regulations are available on [www.fim-moto.com](http://www.fim-moto.com).

All the persons mentioned above may be penalised in accordance with the provisions of all these FIM Regulations and Codes (hereinafter referred to as the "Regulations").

Whilst the Regulations may be translated into other languages, in case of any dispute regarding interpretation, the official English text will prevail.

It is the responsibility of the team to ensure that all persons concerned with its entry observe all the requirements of the Regulations. The responsibility of the rider, or any other person having charge of an entered vehicle during any part of the event with respect to observance of the Regulations, is joint and several with that of the team.

All persons concerned in any way with an entered vehicle (i.e. motorcycle, sidecar or streamliner, etc.) or present in any capacity whatsoever in the Paddock, Pits, Pit lane or Track, shall wear an appropriate pass at all times during the event.

### **ANTI-DOPING CODE**

All the persons concerned shall at all times observe the FIM Anti-Doping Code and may be penalised accordingly.

### **SUPPLEMENTARY REGULATIONS**

In special circumstances, the FIM may allow the Organiser of an individual event to mention in the Supplementary Regulations particular provisions not included in or different from the current Regulations.



## 1. SPORTING REGULATIONS

### 1.1. DEFINITION OF A WORLD RECORD

A record is the best result obtained over a certain distance or within an imposed time limit. Only the fastest record (best result) within the same category, group, division, type, class and cylinder, each calendar day, will be considered for ratification.

When the result has been ratified by the FIM, it becomes a "FIM LAND SPEED WORLD RECORD". When it is ratified by an FMN, it becomes a "NATIONAL LAND SPEED RECORD".

### 1.2. RECOGNISED WORLD RECORDS

The World Records recognised for each class of motorcycle are as follows:

#### 1.2.1. Short Distance World Records

With Standing Start:	With Flying Start:
¼ mile	¼ mile*
1 km	1 km
1 mile	1 mile

\*Note: Attempts for the 1/4 mile with flying start are limited on tracks with a maximum length of 3'219 m (2 miles).

#### 1.2.2. Long Distance World Records (All with standing start)

With Standing Start:
10 km
100 km
1000 km

#### 1.2.3. Period World Records (All with standing start)

With Standing Start:
1 hour
6 hours
12 hours
24 hours

### 1.3. VALIDITY OF WORLD RECORDS

A World Record attempt for a given class can only be made with a motorcycle where the engine size is within the capacity limits for that class. A World Record is only valid for the class which corresponds to the capacity of the engine.

#### 1.3.1. World Records made/breached before 1978

Due to the new method of calculation, introduced by the FIM Technical Commission in January 1978, short distance records made prior to this date are absolute.

Consequently, these World Records are definite and cannot be broken. They are included in a separate section of the World Records Book (1979 Publication) for historical purposes only.

Sidecar World Records registered from 1 January 1952 to 31 December 1963 were made under regulations which have since been modified. At that time, no passenger or ballast was carried.

### **1.3.2. Publications of current World Records & Archives**

The current short distance records with flying start for the mile and the kilometre are published on: [results.fim.ch/wrecord/wrframe](https://results.fim.ch/wrecord/wrframe).

The current records for:

- short distance for with flying start for the ¼ mile
- short distance with standing start
  - for the mile
  - for the kilometre
  - for the ¼ mile
- the long distance
- the period
- the archives for the records made before 1978 (Cf. Art. 1.3.1)

are all published on: <https://www.fim-landspeed-worldrecords.com/en/>

### **1.3.3. Permanence of a World Record**

A World Record is valid until it is exceeded by another attempt. In order to break a World Record the latter must exceed the current World Record based upon the prescribed form of expression (Cf. Art. 1.6).

## **1.4. ESTABLISHMENT OF A WORLD RECORD**

A World Record is considered 'established' when the first best official result is obtained by a vehicle of a given category, group, division, type, class and cylinder. A World Record is registered jointly in the names of the rider(s) and the vehicle(s) used in the attempt. There are the "FIM Land Speed World Record Holders".

## **1.5. FAILED WORLD RECORD**

A World Record is considered 'failed' when:

- a) The official result of the attempt(s) made by the rider is inferior or equal to the current record in place obtained by a vehicle of a given category, group, division, type, class and cylinder.
- b) Benefiting from outside assistance as per Art. 1.20
- c) For short and long-distance record attempts, the return run is not made within the period of 2 hours as per Art. 1.26
- d) For long distance/period records attempts, the rider stops the machine as per the Art. 1.22
- e) The rider breaches at least one rule of the Regulations.



- f) During a 1 hour or 100 km attempt, the machine must not be stopped for more than 5 minutes. After 5 minutes of stoppage, the motorcycle must complete one lap of the course (if a closed circuit is used) or one run (if the attempt is over a course using two directions) before being able to stop again. If this is not done, the attempt will be considered as having failed.
- g) During a 1-hour record attempt, even if the distance necessary to establish a new record has already been reached, the record can only be registered if the machine has been running for at least 55 minutes.

## **1.6. RECOGNISED METHOD OF EXPRESSION**

The result of a World Record attempt must be expressed and published according to the degree of accuracy of the time-keeping apparatus used and calculated on actual distance.

Long Distance World Records must be expressed in times, and Period World Records in distances. The speed must also be given in km/h, to the nearest metre without any rounding off of the calculated figures. The mph will be indicated for information.

For the purposes of conversion, one mile is calculated as 1.609344 km and one kilometre as 0.6213712 miles (Cf. Art. 1.26).

## **1.7. SITES WHERE WORLD RECORDS EVENTS CAN TAKE PLACE**

World Record attempts can be made on a permanent circuit or track, on an autodrome, on an aerodrome or on a temporary track; provided that the sites conform to the conditions stated below and that they are homologated or approved by the FIM.

In case of 'force-majeure', the FIM in consultation with the organisers may adapt these requirements.

Any modifications of the courses must be approved by the FIM and then communicated to all participants.

## **1.8. STANDARDS FOR TRACKS AND COURSES**

To best minimise natural assistance, the track used for a record attempt must conform to the following requirements:

### **1.8.1. Short Distance World Records**

The total course shall consist of a straight course between two points providing acceleration, timing and deceleration zones not having a gradient of more than 1%.

No World Record attempts are allowed in wet conditions on tarmac or concrete strips when the top speed is exceeding 250 km/h (concrete airfield tracks or high-speed circuits excluded).

The following applies to vehicles (motorcycles, sidecars, 3 wheeled or quads) making attempts for a World Record on man-made strips (i.e. airfield runways) made in concrete or tarmac:

1. All vehicles must have at least 2 independent braking systems (on different axles).

2. The secondary braking system must be able to supply at least a 0.5 g deceleration on a dry surface. No engine braking can be used as a unique secondary braking system. Proof of this deceleration ability must be supplied to the FIM CTI & CCR when registering for the event.
3. The braking zone on each end of the measured mile/km is designed to allow a safe reduction of the vehicle's speed in case of failure of one of the independent braking systems.
4. On tarmac or concrete surface, the minimum braking distances are defined according to the top speeds of the motorcycles:
  - Up to 250 km/h → 700 m
  - Up to 300 km/h → 800 m
  - Up to 350 km/h → 1100 m
  - Up to 400 km/h → 1400 m
5. World Record attempts with a final speed exceeding 400 km/h are only permitted on concrete airfield tracks, high-speed circuits (like Idiada or Nardò) or on natural surface strips (i.e. Bonneville Salt flats).

The following applies to vehicles (motorcycles, sidecars, 3 wheeled or quads) making attempts for a World Record on concrete airfield tracks, high-speed circuits (rings) or on natural surface strips (salt lakes):

1. For record attempts with a flying start where speeds do not exceed 250 km/h, the track shall extend a minimum of 750 m at each end of the timing zone.
2. Where speeds do not exceed 500 km/h, the track shall extend a minimum of 1500 m on each end of the timing zone.
3. For record attempts with speeds exceeding 500 km/h, the track shall extend a minimum of 3000 m at each end of the timing zone.

### **1.8.2. Long Distance World Records**

A straight course between two points of the same altitude or a closed circuit may be used for Long Distance World Records. If possible, the road surface should be of a modern type ensuring good grip and its length should not exceed 10 km.

## **1.9. REGULATIONS FOR MEASURING TRACKS**

All permanent tracks must have a 15-cm width "record line" marked with indelible anti-skid paint and must be marked along the whole length of the track in the following way.

- Between two successive bends in the same direction which are separated by a straight, the record line will be marked out parallel to the inside edge of the track, between its mid-point and 90 cm from the inside edge.

- Between two successive bends in opposite directions separated by a straight, the record line shall continue as it leaves the first bend, diagonally across the straight and enter the second bend on the inside.
- Between two successive bends in opposite directions without a straight separating them, the record line of the two bends must be joined by a tangent common to the two curves.

Temporary tracks, whether or not they are closed circuits with bends, must be measured out as indicated above.

On temporary (natural fields) tracks, alternative and appropriate marking methods may be used as dictated by speed and/or environmental concerns.

### **1.10. PRECISION OF MEASUREMENT**

The length of a track will be expressed using the metric system and to the nearest centimetre. The track will be measured by a qualified expert or a person holding qualifications of a recognised Institute (Engineering Firm, Certified Topographer, etc.). All other measurements must be accurate to one (1) centimetre (=10 mm).

On permanent tracks, relevant distances must be indicated by means of painted figures across the track, near the start and finish lines. The figures must be painted onto the track surface itself with indelible paint.

The measurement of other relevant distances on the track must also be of a permanent nature.

On temporary tracks, the distances must be indicated by signs placed on the side of the track.

For all tracks, the start and finish lines of a record attempt will also serve as points at which timing commences and ends. They must therefore be clearly marked by means of signs placed at the side of the track.

### **1.11. HOMOLOGATION OF A PERMANENT TRACK**

To obtain registration for an event in the FIM Calendar, the Organisers/FMNR must send to the FIM Administration a detailed plan of the course. This plan must be on a scale no greater than 1/2000 and must indicate the characteristics (straights, bends) and total length (Cf. Articles 1.8.1 and 1.8.2). The camber of the bends (if applicable), the type of road surface, the location of services and safety installations must also be shown.

The Homologation will be made after a satisfactory inspection has been carried out by the expert(s) appointed by the FIM at the cost of the applicant. The FMNR must certify that the measured characteristics of the track requiring homologation are correct (Cf. Articles 1.8, 1.9 and 1.10).

#### **1.11.1. Track Inspection Previous to the Event**

A track inspection is required before the start of the competition on every day of the event.

The persons involved are the FIM Referee accompanied by the Organiser Representative and/or FMNR Delegate.

During an event with less than five participants, the FIM Referee and the FMNR Delegate and/or Organiser Representative may be accompanied by the riders' representative to inspect the track.

The presence of the Official Timekeeper may be required.

A track inspection shall cover, but not limited to, the following items for short distance records (for long distance records, these requirements shall be adjusted according to the track/circuit layout presented):

- Track condition
- Starting areas
- Location of Marshal posts (starters included)
- Location of timing loops/timekeeping post/meteorological base
- Location of the rescue/medical vehicles, ambulances and firefighting vehicles

## **1.12. CALENDAR AND EVENTS REGISTRATION**

### **1.12.1. Application for Authorisation and Calendar Registration**

For World Record events with up to five (5) participants ("Private events"), the FMNR must apply for authorisation and calendar registration to the FIM Administration at least six (6) months prior to the date set for the event.

For World Record events with more than five (5) participants, the application shall be received at least by the 31 of December from the previous calendar year prior to the first day of the event.

The World Record event is generally held on the FMNR territory. If the event is held on another FMN territory (which then becomes the FMNR), it is necessary to obtain the authorisation of the FMN concerned.

If the World Record event is held in a country which does not have a FMN, application has to be sent to the FIM directly.

Calendar Registration needs to be done on the official FIM Candidature Form (available upon request to FIM Administration or on the website) for events without Promoter (**Cf. FIM Land Speed World Record Event Manual**).

For new venues (never registered in the FIM Calendar), a document certifying the measurements and the gradients of the track must be sent to the FIM Administration together with the FIM Calendar Candidature Form.

The calendar fee for a World Record event registration depends on the number of days. The inscription fee includes the cost for the attendance of the FIM Officials.

### **1.12.2. Supplementary Regulations**

The Organiser/FMNR must submit to the FIM for approval, the Supplementary Regulations ninety (**30**) days prior to the first day of the event, together with:

- A document certifying the measurements and the gradients of the track (Cf. Art. 1.11)\*
- A map with the provisional location of the Track Marshal posts, Timekeeping tour/room, Timekeeping loops location(s), Ambulances/medical vehicle(s) location(s), firefighter vehicle(s) location(s), etc. (Cf. Sporting Appendix 1.A. Provisional Course/ Track Map)
- A copy of the certificate of accuracy for the timekeeping instruments that will be used for the event (Cf. Art. 1.17)\*.

\*For previously FIM homologated tracks hosted successful attempts, the documents must be available at least 5 days prior to the event or at the request of the FIM Referee.

Supplementary Regulations Template is available upon request to the FIM Administration.

By making the application, the FMNR must ensure that it made the necessary arrangements for essential services (i.e. timing, ambulance, rescue, track marshals, security, etc.) and obtained any necessary authorisations from local authorities, etc.

### **1.12.3. Technical Report and Official Schedule**

Minimum 30\* days for organised events, 60\* days for record events with less than 5 participants, a FMNR Chief Technical Steward, holder of a FIM Technical Stewards licence, must send a written technical report to the FIM Technical Director containing the following documents:

1. Photos certifying the condition of the machine (2 photos with fairing and 2 without fairing),
2. The presence and effectiveness of the safety points (photos of each point),
3. The brand and type of tyres and
4. The brand and quality of the rider's clothes and helmet (and photos).

\*Exceptions can be given by the FIM Technical Director at his sole discretion.

At least thirty (30) days prior to the date set for the event the FMNR must send the following documents to the FIM:

1. The official schedule mentioning amongst others:
  - The date, time and venue of the meeting with the Official Timekeeper;
  - The date, time and venue of the meeting regarding the fire-fighting equipment and procedure;
  - The date, time and venue of the meeting with the Medical Officer;
  - The date and time of the first Track Inspection;
  - The date and time of the first attempt.

### **1.13. OFFICIALS**

All the Officials must be present and available at the time necessary to ensure smooth and efficient running of the Event.

#### **1.13.1. FIM Officials**

When an authorisation for an event is issued, the FIM Administration shall appoint a Referee (CCR) and a Technical Director (CTI) with appropriate FIM Steward licence to supervise the event.

In certain cases, an Assistant Deputy Referee under the supervision of the FIM Referee and/or Technical Director to enable the latter to benefit from training. The costs of the assistant/probationary Steward, if appointed, shall be covered by the FIM.

Under exceptional circumstances, such as the FIM Technical Director being prevented to arrive on time, late, or absent, the record attempt(s) shall take place under the supervision of the FMNR (Technical) Steward holding a valid international license.

The FIM Officials are not responsible for the organisation of the event but they must see that all the necessary requirements have been met.

The FIM Officials can, in case of danger (weather conditions, state of the course, condition of the machines, or riders, etc.) order a postponement of the start or interrupts an attempt.

### **1.13.2. FIM Referee**

The FIM Referee is responsible for enforcing the FIM Regulations and shall supervise the event. **They** may delegate some of **their** duties to a FIM Assistant Deputy Referee (if any) or an FMNR Delegate.

At any time, the duties and responsibilities of the FIM Referee are:

- a) To ensure the smooth and efficient running of the event.
- b) To take decisions as provided in the Regulations.
- c) To make changes in the conduct and/or format of an attempt based on safety considerations and provided that such decision is absolutely necessary to resolve a situation not foreseen in the Regulations. In such exceptional cases, such decision may prevail over specific provisions of the Regulations.
- d) Provided that it is absolutely necessary to resolve a situation not foreseen in the Regulations, the FIM Referee may issue pre-attempts instructions or clarifications and in specific cases even create pre-attempts Regulations (e.g. to take into account the local conditions at a particular track). However, such actions may only be taken within the limits set out by the Regulations.
- e) To impose penalties for any infringements of the Regulations.

The FIM Referee may pronounce the following penalties provided for in the FIM Disciplinary and Arbitration Code.

- Warnings
- Fines
- Disqualification
- Suspension

- f) To impose penalties on organisers for having been unable to ensure the smooth and efficient running of the event or for serious breaches of the Regulations.
- g) To adjudicate on any protest relating to infringements of the Regulations.

The FIM Referee is the only jurisdictional body of the event competent to adjudicate upon any protest that may arise during a meeting, subject to the right or further appeal. The FIM Referee must settle any case in which a disciplinary sanction may be applied according to the provisions laid down in the Disciplinary and Arbitration Code.

- h) Check the international licences of the participants.
- i) Check the track layout and security provisions/arrangements (enough Marshals and first aid staff present) for the event are as per the track homologation and safety plan prior to the beginning of all runs for the “sporting” inspection.
- j) Check with the Official Timekeeper and his/her staff that the timekeeping material is working accurately (test run).
- k) Check with the Official Timekeeper and his/her staff that the wind speed does not exceed the authorised maximum of 5 m per second (11mph, or 9.5 kn or 18km/h) before giving the “green light”/ flag to start the run.
- l) Ensure that the motorcycle is under continuous observation by either himself or an Official throughout the duration of the record attempt.
- m) Collect the results for the CCR Ratifications and event reports and send them to the FIM Administration after the event.

### **1.13.3. Other Officials**

A) For World Records event with up to five (5 participants) – “Private events”, the FMNR/Organiser shall appoint the following Officials approved by the FIM.

#### **1. FMNR Delegate (if nominated)**

If the FMNR nominates a delegate (single), they will act as an additional referee and it will be indicated in the Supplementary Regulations of the event.

The FMNR Referee shall work in permanent consultation with the FIM Referee.

The FIM Referee will exercise a casting vote if necessary in any decisions.

At any time, the duties and responsibilities of the FMNR Referee are as described for the FIM Referee above (Cf. Art. 1.13.2.).

#### **2. Event Manager/Organiser**

- Ensuring that the track is suitably prepared for and maintained during the Event and that all legal requirements applicable for the running of the event have been complied with.
- Ensuring that all Officials and services are in place for the event.



- The stationing of all track personnel and equipment (i.e. Marshals, firefighting services, medical vehicles, flags, etc.) alongside the track prior to the beginning of the first runs of the day for the “sporting” inspection.

**3. Doctor (Chief Medical Officer if applicable)**

**Doctor or CMO** is responsible for liaison with the medical staff at the event and to ensure the compliance with the FIM Medical Code.

**4. Other Officials**

Timekeeping staff, Marshals, Technical Scrutineers, Firefighters, Medical Personnel etc. as required in the Supplementary Regulations for the efficient running of the event.

**B)** For World Records event with more than five (5 participants) – “Public events”, the FMNR/Organiser shall appoint the minimum following Officials approved by the FIM.

**1. Clerk of the Course**

- Ensuring the efficient running of the event
- Ensuring that the track is suitably prepared for and maintained during the Event and that all legal requirements applicable for the running of the event have been complied with.
- Ensuring that all Officials and services are in place for the event.
- The stationing of all track personnel and equipment (i.e. Marshals, firefighting services, medical vehicles, flags, etc.) alongside the track prior to the beginning of the first runs of the day for the “sporting” inspection.

**2. FMNR Delegate (if nominated)**

If the FMNR nominates a delegate (single), they will act as an additional Referee and it will be indicated in the Supplementary Regulations of the event.

The FMNR Referee shall work in permanent consultation with the FIM Referee.

The FIM Referee will exercise a casting vote if necessary in any decisions.

At any time, the duties and responsibilities of the FMNR Referee are as described for the FIM Referee above (Cf. Art. 1.13.2.).

**3. Doctor (Chief Medical Officer if applicable)**

**Doctor or CMO** is responsible for liaison with the medical staff at the event and to ensure the compliance with the FIM Medical Code.

**4. Event Secretary**

- Ensuring of the effective communications between the various stakeholders of the event.
- Providing administrative support for the FIM and FMNR Officials (Meetings’ minutes, the notifications to the participants, etc.)

**5. Other Officials**

Marshals, Technical Scrutineers, Firefighters, Medical personnel, Timekeeping staff, etc., as required in the Supplementary Regulations for the efficient running of the event.

During the runs/attempts, all communications between the Officials must be made by a reliable system according to the venue possibility. A system radio/walkie-talkie is highly recommended.

#### **1.13.4. FIM Technical Director**

The duties and responsibilities of the FIM Technical Director include among others are:

##### Before the event:

- Check the weight/ballast to confirm the category in which the vehicle has been registered to compete. In case of an addition of ballast, the ballast will be sealed by the FIM Technical Director.

##### During the event:

- Ensure during refuelling, that there is no outside assistance and that the engine is switched off and the motorcycle is stationary.
- Ensure that only authorised parts are changed.
- Ensure that the Official Timekeeper and **their** staff are informed of any possible changes in vehicle set up/parts and that any such changes appear in the official results.
- If a motorcycle stops during a record attempt, the FIM Technical Director and/or Chief Technical Stewards must go to the exact point where the vehicle stopped and if necessary, order a new start.
- After the record attempts, the engine capacity will be checked or the engine will be sealed until the time the engine capacity will be checked.
- Check the weight of the vehicles.

##### After the event:

- Maintain strict control of the vehicles, but allow access for publicity, press, photographs, etc. No more than one (1) hour may elapse before the motorcycle is checked (for events with five participants or less).
- Identify the motorcycle and check the engine and ballast.
- Supervise the measurement of the engine capacity by the Technical Steward.
- Gather the Final Technical Control Form required by Art. 1.30 and the results of all the participants with new World Records. These documents must be sent to the FIM Administration (CCR) within 7 days after the completion of the attempt.

#### **1.13.5. Event Manager/Clerk of the Course**

The duties and responsibilities of the Event Manager/Clerk of the Course among others are:

- Ensure that the track is suitably prepared for and maintained during the event and that all legal requirements applicable for the running of the event have been complied with.
- Ensure that all Officials and services are in place for the event.
- Ensure that the stationing of all track personnel and equipment (i.e. marshals, fire-fighting services, medical vehicles, flags, etc.) alongside the track are set up prior to the beginning of the first runs of the day for the “sporting” inspection.
- Ensure that the event is conducted according to the Regulations and reporting any infringement to the FIM Referee.

#### **1.13.6. The Official Timekeeper**

The duties and responsibilities of the Official Timekeeper among others are:

- Ensure that the locations of the timing loops, the timekeeping post and the meteorological base are appropriate for the records intended.
- Provide the necessary timekeeping equipment and check with the FIM Referee and FIM Technical Director that the timekeeping material is working accurately (test run).
- Ensure to provide the minimum equipment (timing traps sensors) to cover all the distances (i.e. ¼ mile, kilometre, mile) targeted by the participant(s).
- Have at his disposal a reserve set of timekeeping materials (as described below) to check the readings of instruments being used.
- Check with the FIM Referee and timekeeping staff that the wind speed does not exceed the authorised threshold value.
- Manage and distribute tasks with timekeeping staff if appropriate.
- Certify the timing sheets and provide them to the FIM Technical Director.

#### **1.13.7. Medical Officials**

A Doctor must be present during all duration of the event. Presence of the Chief Medical Officer (CMO) is highly recommended.

The duties and responsibilities of the FMNR Doctor among others are:

- Ensure the liaison with the medical staff at the event.
- Ensure the compliance with the FIM Medical Code.
- Provide a report to the FIM Referee.
- Must be present at all meetings of the Officials.

#### **1.13.8. Technical Stewards**

The Chief Technical Steward and the Technical Steward, appointed by the FMNR, must verify the machines and equipment in accordance with the FIM rules and the Supplementary Regulations. They must draw up a technical report and hand a copy to the FIM Technical Director.

#### **1.13.9. Official's Meetings**

The Officials of the event will meet at any time required during the event, but at least:

- a) Prior to the first run's sessions at the beginning of the event.
- b) At the end of each run's day.
- c) At the end of the event.

The FIM Referee may also invite the participation of Officials or other persons to assist in the Official's meetings. However, the invited officials or other persons will have no right to vote.

#### **1.14. ENTRIES**

Persons wishing to make a World Record attempt must apply to their FMN by submitting the following documents:

1. The Rider **Online** Entry Application Form dully completed (Cf. Sporting Appendices: 1.B. Rider Entry Application Form – Short Distance Records, **Long Distance Records and Period Records**)
2. The following photographs of the vehicle (strongly recommended):
  - 2 photographs with fairing, taken from each side
  - 2 photographs without fairing, taken from each side
  - 2 photographs with fairing, taken from back and front
  - 2 photographs without fairing, taken from back and front
  - 2 photographs with streamlining\*
  - 2 photographs without streamlining\*
  - Photos of each safety points/braking system, and short report on how they work/their effectiveness.

\*Applicable only for streamlining vehicles.

The complete application documentations shall be forwarded as per the procedure indicated in the form to the FIM **with authorisation** by the applicant's FMN (National Motorcycle Federation).

Riders taking part in a FIM Land Speed World Record event must hold the appropriate valid FIM licence issued by an FMN.

#### **1.15. MOTORCYCLES (VEHICLES)**

##### **1.15.1. Motorcycles Used for Short Distance Record Attempts:**

For short distance record attempts, motorcycles can be in any categories, groups, divisions, types, classes and numbers of cylinders as long as they respect the rules defining them (Cf. art. 1.16 Categories, Groups, Divisions, Types, Classes and Number of Cylinders).

##### **1.15.2. Motorcycles Used for Long Distance or Period Attempts:**

For long distance or period attempts, the rules concerning the capacity of the engine (Cf. Art. 2.5), the position of the ballast for three-wheelers (Art. 1.16.1 Cat II, Group B1, B2 & B3) and riders' clothing (Art. 2.14) must be observed.

All other details are the responsibility of the rider and/or of the persons making the record attempt.

**1.16. CATEGORIES, GROUPS, DIVISIONS, TYPES, CLASSES AND NUMBER OF CYLINDERS**

- **‘Categories’** describe the method by which the motorcycle is propelled.
  - **Category I** Propelled by the action of one (1) wheel in contact with the ground
  - **Category II** Propelled by the action of two (2) wheels in contact with the ground
  - **Category III** Propelled by the action of multiple wheels or track devices in contact with the ground
  - **Category IV** Propelled by the action of multiple wheels or track devices in contact with the ground
- **‘Groups’** further describe the motorcycles and are a sub-division of ‘Categories’ as illustrated below.

<b>Category I</b>	A1	<b>Solo Motorcycles</b>
	A2	<b>Scooters</b>
	A3	<b>Automatic 50 cc</b>
<b>Category II</b>	A1	<b>Solo Motorcycles</b>
	A2	<b>Scooters</b>
	A3	<b>Automatic 50 cc</b>
	B1	<b>Sidecar</b>
	B2	<b>Permanent Sidecar</b>
	B3	<b>Cycle-cars</b>
<b>Category III</b>	C	<b>Special 2-wheeled Vehicles</b>
	D	<b>Special 3-wheeled Vehicles</b>
	E	<b>Snowmobiles</b>
	F	<b>Sprinters and Drag Bikes</b>
	G	<b>2-wheeled Quad Racers</b>
	H	<b>4-wheeled Quad Racers</b>
<b>Category IV</b>	J	<b>Electric Vehicles</b>
	Y	<b>Specials</b>

- **‘Divisions’** define the degree of streamlining.
  - **Division A Non-streamlined**  
The rider is visible at all times. No streamlining devices are permitted.
  - **Division B Partially Streamlined**  
The rider is visible when viewed from both sides and from above (with the

exception of hands and wrists). Front and rear wheels must remain partially uncovered

- **Division C Streamlined**

The rider is fully enclosed within the body of the vehicle.

- **'Types'** are determined by power source and then subdivided into 'Classes'.

- **Type I** Internal Combustion, Spark Ignition, Naturally Aspirated
- **Type II** Internal Combustion, Spark Ignition, Forced Induction
- **Type III** Internal Combustion, Compression Ignition (diesel), Naturally Aspirated
- **Type IV** Internal Combustion, Compression Ignition (diesel), Forced Induction
- **Type V** Spark Ignition
- **Type VI** Compression Ignition (diesel)
- **Type VII** Solar/Electric Powered
- **Type X** Other Propulsion

- **'Classes'** are determined by total engine displacement.

- |                |                 |
|----------------|-----------------|
| ○ <b>50cc</b>  | ○ <b>1000cc</b> |
| ○ <b>85cc</b>  | ○ <b>1350cc</b> |
| ○ <b>100cc</b> | ○ <b>1600cc</b> |
| ○ <b>125cc</b> | ○ <b>2000cc</b> |
| ○ <b>175cc</b> | ○ <b>2500cc</b> |
| ○ <b>250cc</b> | ○ <b>3000cc</b> |
| ○ <b>350cc</b> | ○ <b>150kg</b>  |
| ○ <b>500cc</b> | ○ <b>300kg</b>  |
| ○ <b>600cc</b> | ○ <b>+300kg</b> |
| ○ <b>750cc</b> |                 |

- **'Number of cylinders'** is determined by the number of combustion chambers.

- **Single**
- **Twin**
- **Multi**

### 1.16.1. Categories and Groups

Further explanation concerning categories and groups can be found below.

**All vehicles:** A track is determined by the longitudinal centre-line of each of the vehicle's wheels in the direction of forward travel

<b>CATEGORY I</b>	
Motorcycles propelled by the action of one (1) wheel in contact with the ground.	
<b>GROUP</b>	<b>EXPLANATION</b>
<b>Solo Motorcycles (A1)</b>	<p><b>Solo Motorcycles</b> 2-wheeled vehicles making only one (1) track on the ground, and:</p> <ul style="list-style-type: none"> <li>• <b>Solo Motorcycles - Single (1) cylinder</b> (according to the class capacities, up to 1000cc maximum), Division A and B</li> <li>• <b>Solo Motorcycles - Two (2) cylinders</b> (according to the class capacities, up to 3000cc maximum), Division A and B</li> <li>• <b>Solo Motorcycles - Three or more (3+) cylinders</b> (according to the class capacities, up to 3000cc maximum), Division A and B</li> </ul>
<b>Scooters (A2)</b>	<p><b>Scooters A2 – CVT type/ A2 MGS type</b> A scooter is a motorised 2-wheeled vehicle produced in large quantities by the original manufacturer with a minimum of 2000 units registered by the manufacturer and found in the manufacturers' and dealers' catalogues, available for the public market.</p> <p><b>Scooter specification:</b> A scooter must have its crankcase/ swing-arm constructed as one single, rigid unit. Its transmission must be by a continuous variation transmission (A2-CVT), or originally fitted with a manually operated gear selector (A2-MGS).</p> <ul style="list-style-type: none"> <li>• Prototypes are not permitted.</li> <li>• Ergonomics: The seat and handlebar are designed for an erect position of the rider's upper body.</li> <li>• The minimum handlebar width: 550 mm.</li> <li>• The seat shall have room for the rider and passenger.</li> <li>• The area in front of the rider's seat shall have the typical scooter characteristic that is an 'open' space, or step-thru space.</li> <li>• The minimum required difference in height measured between the bottom of the seat and the lowest part of this step-thru space shall be 100 mm.</li> <li>• The area in front of the seat: The rider's legs and feet shall be protected by a leg shield with a minimum width of 400 mm.</li> <li>• Floor (foot) boards minimum length: 350 mm</li> <li>• Maximum rear wheel rim diameter: 16"</li> </ul>
<b>Automatic 50 cc (A3)</b>	<p><b>Automatic 50 cc / Moped 50 cc</b> Motorcycles driven by an engine capacity of up to 50 cc and having an automatic transmission</p>



<b>CATEGORY II</b>	
Motorcycles propelled by the action of two (2) wheels in contact with the ground.	
<b>GROUP</b>	<b>EXPLANATION</b>
<b>Solo Motorcycles (A1)</b>	(Cf. Category I, Group A1 above)
<b>Scooters (A2)</b>	(Cf. Category I, Group A2 above)
<b>Automatic 50 cc (A3)</b>	(Cf. Category I, Group A3 above)
<b>Sidecar (B1)</b>	<p><b>Motorcycles with a Sidecar</b> Vehicles with three (3) wheels, making two (2) tracks on the ground, consisting of a motorcycle making one track, and a Sidecar for a passenger making the other.</p>
<b>Permanent Sidecar (B2)</b>	<p><b>Vehicles with a permanent Sidecar</b> Vehicles with three (3) wheels making two (2) or three (3) tracks on the ground in the direction of forward travel, with a permanently attached Sidecar forming a complete integral unit.</p> <p>If three tracks are made, the centre-line of the two tracks made by the motorcycle wheels must not be more than 75 mm apart. A track is determined by the longitudinal centre-line of each of the vehicle's wheels in the direction of forward travel.</p> <p>A passenger may not be carried. A ballast of 60 kg must be securely fixed to the Sidecar.</p>
<b>Cycle-cars (B3)</b>	<p><b>Cycle-cars (FW or RW)</b> 3-wheeled vehicles making three tracks on the ground forming a complete integral unit and having accommodation for a rider and a passenger.</p> <p>A cycle-car is a motorcycle with 3 wheels differing from a Sidecar in that 2 of the wheels are mounted on the same geometric horizontal axis. These may be on the front (FW) or rear (RW) of the vehicle and shall ensure the stability of the vehicle.</p> <p>The 'space' for a passenger can be by the side of the rider but not necessarily in the same frontal alignment. It can also be placed behind the rider. A passenger may not be carried. A ballast of 60 kg must be securely fixed to the Sidecar.</p> <p>Steering must be by handlebars with a minimum length of 500mm, or by a wheel with a minimum diameter of 300mm.</p> <p>If bodywork does not enclose the wheels, they must be protected by mudguards.</p>

<b>CATEGORY III</b>	
Special vehicles propelled by the action of multiple wheels or track devices in contact with the ground but which are not covered by the conditions for Category I or II.	
<b>GROUP</b>	<b>EXPLANATION</b>
<b>Special 2-wheeled Vehicles (C)</b>	<b>Special 2-wheeled Vehicles</b> Vehicle where the rider's position is in front or behind the engine, and the vehicle adopts a longer and lower 'motorcycle' profile.
<b>Special 3-wheeled Vehicles (D)</b>	<b>Special 3-wheeled Vehicles</b>
<b>Snowmobiles (E)</b>	<b>Special 3-wheeled Vehicles</b>
<b>Sprinters and Drag Bikes (F)</b>	<b>Sprinters and Drag Bikes (Dragsters)</b>
<b>2-wheeled Quad Racers (G)</b>	<b>2-wheeled Quad Racers</b> Quad Racers – 2-wheel driven
<b>4-wheeled Quad Racers (H)</b>	<b>4-wheeled Quad Racers</b> Quad Racers – 4-wheel driven
<b>Electric Vehicles (J)</b>	<b>Electric Vehicles</b> (Cf. Art. 2.16)

<b>CATEGORY IV</b>	
Special vehicles not propelled by wheels in contact with the ground.	
<b>GROUP</b>	<b>EXPLANATION</b>
<b>Specials (Y)</b>	<b>Specials</b>

### 1.16.2. Divisions, Types and Classes

Further explanation concerning divisions, types and classes can be found below.

For details of divisions, refer to Art. 2.18 of the Technical Regulations.

<b>DIVISION A – Non-Streamlined Vehicles</b>		
<b>TYPES</b>	<b>CLASSES</b>	
<p><b><u>Type I</u> - Internal Combustion,</b> Spark Ignition, Naturally Aspirated</p> <p><b><u>Type II</u> - Internal Combustion,</b> Spark Ignition, Forced Induction</p> <p><b><u>Capacity and design limits:</u></b></p> <p>*adjustment for rotary engines</p>	<p><b>Displacement Classes (*)</b></p> <p><b>50</b> up to 50 cc  <b>85</b> over 50 cc to 85 cc  <b>100</b> over 85 cc to 100 cc  <b>125</b> over 100 cc to 125 cc  <b>175</b> over 125 cc to 175 cc  <b>250</b> over 175 cc to 250 cc  <b>350</b> over 250 cc to 350 cc  <b>500</b> over 350 cc to 500 cc  <b>600</b> over 500 cc to 600 cc  <b>750</b> over 600 cc to 750 cc  <b>1000</b> over 750 cc to 1000 cc  <b>1350</b> over 1000 cc to 1350 cc  <b>1600</b> over 1350 cc to 1600 cc  <b>2000</b> over 1600 cc to 2000 cc  <b>2500</b> over 2000 cc to 2500 cc  <b>3000</b> over 2500 cc to 3000 cc</p>	
	<p><b><u>Type III</u> - Internal Combustion,</b> Compression Ignition (diesel), Naturally Aspirated</p> <p><b><u>Type IV</u> - Internal Combustion,</b> Compression Ignition (diesel), Forced Induction</p>	<p><b>750</b> up to 750 cc  <b>1500</b> over 750 cc to 1500 cc  <b>3000</b> over 1500 cc to 3000 cc</p>
		<p><b><u>Type VII</u> - Solar/Electric Powered</b></p> <p><b>150</b> up to 150 kg  <b>300</b> over 150 kg to 300 kg  <b>+300</b> over 300 kg</p>
		<p><b><u>Type X</u> - Other Propulsion</b> (Appendices governing the classes on these groups to be issued as each case is presented.)</p>

<b>DIVISION B – Partially Streamlined Vehicles</b>			
<b>TYPES</b>	<b>CLASSES</b>		
<p><b><u>Type I</u> - Internal Combustion,</b> Spark Ignition, Naturally Aspirated</p> <p><b><u>Type II</u> - Internal Combustion,</b> Spark Ignition, Forced Induction</p> <p><b><u>Capacity and design limits:</u></b></p> <p>*adjustment for rotary engines</p>	<p><b>Displacement Classes (*)</b></p> <p><b>50</b> up to 50 cc  <b>85</b> over 50 cc to 85 cc  <b>100</b> over 85 cc to 100 cc  <b>125</b> over 100 cc to 125 cc  <b>175</b> over 125 cc to 175 cc  <b>250</b> over 175 cc to 250 cc  <b>350</b> over 250 cc to 350 cc  <b>500</b> over 350 cc to 500 cc  <b>600</b> over 500 cc to 600 cc  <b>750</b> over 600 cc to 750 cc  <b>1000</b> over 750 cc to 1000 cc  <b>1350</b> over 1000 cc to 1350 cc  <b>1600</b> over 1350 cc to 1600 cc  <b>2000</b> over 1600 cc to 2000 cc  <b>2500</b> over 2000 cc to 2500 cc  <b>3000</b> over 2500 cc to 3000 cc</p>		
	<p><b><u>Type III</u> - Internal Combustion,</b> Compression Ignition (diesel), Naturally Aspirated</p> <p><b><u>Type IV</u> - Internal Combustion,</b> Compression Ignition (diesel), Forced Induction</p>	<p><b>750</b> up to 750 cc  <b>1500</b> over 750 cc to 1500 cc  <b>3000</b> over 1500 cc to 3000 cc</p>	
		<p><b><u>Type VII</u> - Solar/Electric Powered</b></p>	<p><b>150</b> up to 150 kg  <b>300</b> over 150 kg to 300 kg  <b>+300</b> over 300 kg</p>
			<p><b><u>Type X</u> - Other Propulsion</b> Appendices governing the classes on these groups to be issued as each case is presented.</p>

<b>DIVISION C – Streamlined Vehicles (Streamliners)</b>		
<b>TYPES</b>	<b>CLASSES</b>	
<p><b><u>Type I</u> - Internal Combustion,</b> Spark Ignition, Naturally Aspirated</p> <p><b><u>Type II</u> - Internal Combustion,</b> Spark Ignition, Forced Induction</p> <p><b><u>Capacity and design limits:</u></b></p> <p>*adjustment for rotary engines</p>		<b>Displacement Classes (*)</b>
	<b>50</b>	up to 50 cc
	<b>85</b>	over 50 cc to 85 cc
	<b>100</b>	over 85 cc to 100 cc
	<b>125</b>	over 100 cc to 125 cc
	<b>175</b>	over 125 cc to 175 cc
	<b>250</b>	over 175 cc to 250 cc
	<b>350</b>	over 250 cc to 350 cc
	<b>500</b>	over 350 cc to 500 cc
	<b>600</b>	over 500 cc to 600 cc
	<b>750</b>	over 600 cc to 750 cc
	<b>1000</b>	over 750 cc to 1000 cc
<p><b><u>Type III</u> - Internal Combustion,</b> Compression Ignition (diesel), Naturally Aspirated</p> <p><b><u>Type IV</u> - Internal Combustion,</b> Compression Ignition (diesel), Forced Induction</p>	<b>750</b>	up to 750 cc
	<b>1500</b>	over 750 cc to 1500 cc
	<b>3000</b>	over 1500 cc to 3000 cc
<p><b><u>Type VII</u> - Solar/Electric Powered</b></p>	<b>150</b>	up to 150 kg
	<b>300</b>	over 150 kg to 300 kg
	<b>+300</b>	over 300 kg
<p><b><u>Type X</u> - Other Propulsion</b> Appendices governing the classes on these groups to be issued as each case is presented.</p>		

### 1.17. TIMEKEEPING AND TIMEKEEPING EQUIPMENT

In order to carry out their duties, during competition, the timekeeping services must respect the following:

- For all record attempts, one or more automatic chronometer(s) with a precision of 1/1000<sup>th</sup> second activated by the passage of a motorcycle crossing the timekeeping line must be used. All apparatus must be synchronised no more than 30 minutes before the beginning of the record attempt by an automatic synchroniser or by a single electrical contact with the time of day registering time to 1/1000<sup>th</sup> second.
- For a long distance attempt carried out on a closed circuit, times must be recorded for each lap.
- For attempts at World Records reaching speeds above 1000 km/h, instantaneous measurements may be taken provided that the apparatus used has a certified accuracy of 1/10000<sup>th</sup> of a second.

- The Official Timekeeper must have at his disposal a reserve set of timekeeping material to check the readings of instruments being used.
- The timing instruments detailed above must have a first-class certificate of accuracy issued by an official National Observatory or Institute of Horology.
- Documents certifying the accuracy of time-keeping equipment must not be more than two years old.
- The timekeeping rooms/installation are fed by a main power supply source, a backup power system must always be operational in case of a failure of the main system.
- An anemometer/wind gauge measures the wind speed and direction (Cf. Art. 1.20.1)
- It is recommended to use the timing sheet for format results. Please refer to Sporting Appendix 1.D. "Template Timing Sheet for Results" or other approved electronic submission processes.
- The timekeeping service must ensure to get the minimum equipment (timing traps sensors) to cover all the distances (i.e. ¼ mile, kilometre, mile) targeted by the participant(s) (or in accordance with the Supplementary Regulations of the event) including standing starts and flying starts attempts.

## **1.18. STARTS**

### **1.18.1. Standing Starts**

The most advanced part of the motorcycle must be placed no further than 10 cm behind the timing line with the engine running.

When the Steward indicates that he is satisfied, the rider can start in his own time. To assist the position of the motorcycles, the use of a wedge behind the rear wheel is authorised.

### **1.18.2. Flying Starts**

The rider can take his place behind the timekeeping line using the distance he requires as long as he stays within the limits of the track at his disposal. When ready, he drives towards and across the starting line and continues across the finish line.

## **1.19. REFUELLING AND RIDER RELAYS**

A "refuelling line" must be clearly marked on the track at a 10-metre distance of the starting line and parallel to the timekeeping line. During refuelling or during the relay of riders, the motorcycle must stop in the zone between the refuelling and timekeeping lines.

Outside assistance will be allowed to restart the motorcycle, only if a motorcycle must be 'pushed' by the mechanics up to (but not beyond) the refuelling line. At this point, the motorcycle must continue under its own power or be started by its own onboard starting devices.

If a motorcycle should be 'push-started', the motorcycle must be placed in front of the refuelling line, using as much distance as necessary to start the engine. If a machine is equipped with a kick- or electric starter, the machine can start directly from the refuelling position.

Refuelling must always be carried out with the engine stopped. The relaying of riders on the same motorcycle may be done with the engine running but any new starts must conform to the above rules.

For long distance records, a preliminary refuelling test may be required by the FIM Technical Director. All personnel in connection with the refuelling operation must wear fire-retardant head and eye protection, and suitable fire-retardant clothing (for the body, hands and feet).

### 1.20. OUTSIDE ASSISTANCE AND WIND SPEED

During the whole time that an attempt is taking place and during the run-up to a flying start attempt, the machine can only be driven by its own engine, the physical force of the rider (and passenger if applicable) and by the natural forces of gravity. No outside assistance will be tolerated.

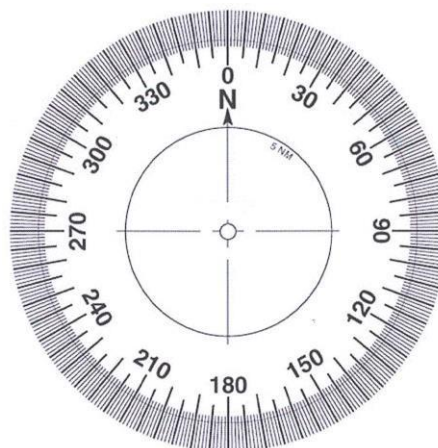
The wind speed component in the direction of a run must not exceed 5 m/s (11 mph, 9.5 kn or 18 km/h) for record ratification (Cf. the wind rose and the wind speed and direction table).

For streamliners and non-wheel-driven machines and, at the absolute discretion of the FIM Officials this rule may be varied in respect of run up only, to allow assistance up to a maximum speed of 80 km/h (50 mph) and not further than 400 m from the starting point (zero speed).

#### 1.20.1. Wind Speed and Direction (in relation to the course)

In order to compute the wind speed in relation to the course, the FIM Technical Director will need to:

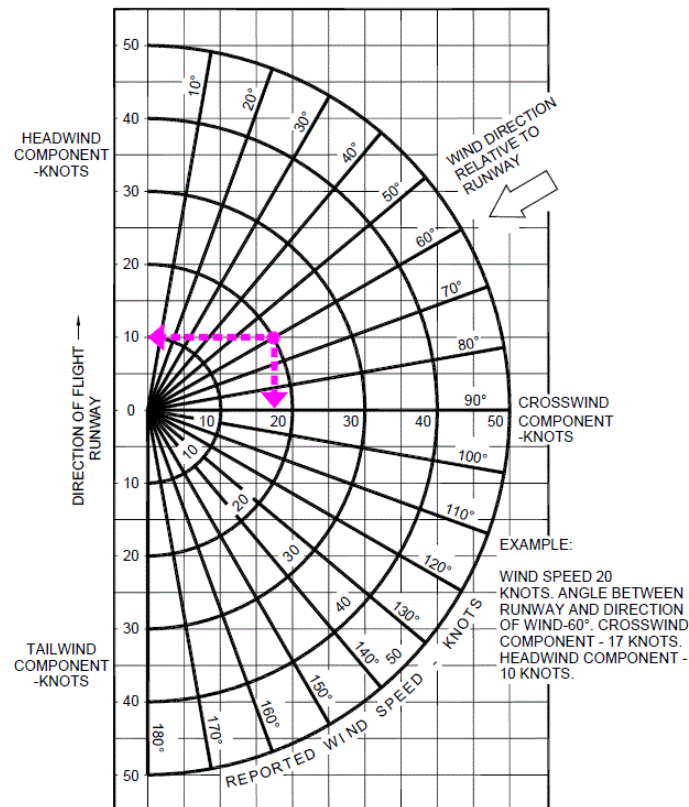
- a) Determine the direction of the course (the 'track') in degrees (available from the 'tower' when the event is at an airport, or from the official timing services present at the event).
- b) Determine the wind direction in degrees and the velocity (speed). The wind is always reported 'from' in degrees or using compass points (Cf. 'Compass Points Chart'). The wind speed is always reported as an average value and not as an instant (or highest) value.



- c) Determine if there is a tailwind component (= in the direction of the record attempt) and if so the velocity or speed (Cf. table hereunder).



While the actual crosswind component is a factor for streamliners and possibly other participants as a controllability issue, the value of the ‘tailwind’ component is limited to achieve a valid record. Effectively if the wind is from the right or left quadrant up to 90 degrees from the course, there is no tailwind component. See example hereunder:



Note: At airports, the prevailing wind speed is usually expressed in knots (kn).

For events on a natural surface, the wind speed is reported by the official timing stand, usually expressed in miles per hour (mph), kilometre per hour (km/h) or m/sec (metre per second).

Especially in windy conditions and for safety reasons, it is important to check wind direction and wind speeds before every attempt, as follows:

1. The ‘tailwind’ (or tailwind component) in the direction of the attempted run.
2. The ‘crosswind’ (a result produced by the direction of the wind, coming from the left- or right, front- or aft quarter).

In all cases, the maximum value is 11 mph (9.5 kn or 18 km/h or 5 m/s).

For streamliners, the recommended maximum ‘crosswind’ component is 3 mph (2.6 kn or 4.8 km/h, or 1.33 m/s).

The “official” values of wind speed and wind direction will be measured at a height of 1 m to 3 m at least **one** place (point 0, at the centre of the track). Additional wind measurement-locations are recommended (i.e. at the start and end points of the track).

### **1.21. SIMULTANEOUS ATTEMPTS (Long Distance/Period Attempts)**

Several attempts can be made simultaneously on the same course or circuit provided that there are independent time-keeping arrangements for each.

A rider shall not ride continuously in the slip-stream of another machine. A distance of at least 50 metres must separate machines on the track at the same time.

### **1.22. TIME LIMITS AND STOPPAGES**

During a record attempt over 1000 km, 6 hours or more, the machine must not be stopped for more than 1 hour in all.

### **1.23. STOPS AND RESTARTS DURING A WORLD RECORD ATTEMPT**

If for any reason a vehicle stops outside the refuelling zone, the place where it stops shall serve as the re-start point under the supervision of the Official.

### **1.24. CHANGE OF PARTS**

- a)** For a short distance record attempt, no change of parts is permitted, except for:
- Changes to the ignition settings
  - Fuel-air ratio changes (or fuel mapping), and other changes in the ECU)
  - Spark plugs changes
  - Wheels and tyres changes
  - Data may be downloaded
  - Used parts can only be changed if the new parts are identical to those replaced.
  - Fuel may be added.
- b)** For long distance or period record attempts, the following parts cannot be changed:
- Frame,
  - Cylinder,
  - Cylinder head,
  - Crankcase.

Electrical vehicles may recharge their batteries during the record attempt or may replace their batteries (and keep the same type and quantity). Batteries with fuel cells are not allowed.

### **1.25. FINAL EXAMINATION**

Immediately after the completion of the last attempt, the FIM Technical Director must ask to check the motorcycle's/vehicle's identity, the engine capacity and the weight of the ballast (if any). For multiday events, FIM Technical Director can check engine capacity at the same day, if the participant decides to stop prior the last day of the event, if he/she decides to continue the engine must be sealed and will be checked at the later stage.

For electric-powered vehicles, the complete motorcycle/vehicle must be weighed.

For events with more than 5 participants, the FIM Technical Director may request their motorcycle/vehicle to be placed in a secure impound area until it is practicable to

conduct the final examination. In this case, the riders must bring his/her motorcycle to the 'parc fermé' for a period of one (1) hour, during which the motorcycle is supervised by Technical Scrutineers.

## **1.26. CALCULATION OF WORLD RECORD RESULTS**

### **1.26.1. Short Distance Records**

A short distance World Record attempt consists of two consecutive timed runs in opposite directions within a period of two hours. This period is initiated when the vehicle passes the first timing cell of the first run and ends when the vehicle passes the last timing cell of the consecutive run. Time stamps (hour/minute/second) must be provided for each participant's run.

Short distance records (1/4 mile, 1 km, 1 mile) are expressed in both kilometres per hour (km/h) and miles per hour (mph). The speed is calculated by using the average elapsed time (ET) recorded from two consecutive runs in opposite directions.

The elapsed time (ET) must be presented in seconds, with a minimum accuracy in milliseconds

The numbers of attempts are not limited.

### **1.26.2. Long Distance or Period Records**

A Long Distance or Period World Record attempts are generally held on closed circuits. The rider will not be stopped until he has completed the final lap of the attempt.

#### **1.26.2.1. Long Distance Records**

Long distance World Records attempts are expressed in times and period records in distances. Results will be calculated using the system known as interpolation.

#### **Example 1:**

On a closed circuit of 3 km in length, the 1000 km record is being attempted. In this attempt, 333.333 laps must be run (1000:3). Therefore, the rider must complete at least 334 laps. The time taken for 1000 km is then calculated by adding the time taken over 333 laps to 0.333 of the time taken over the 334th lap.

For Period records (1, 6, 12 and 24 hours), the result will be expressed as a distance covered in the time imposed. This distance will be calculated by adding the total distance covered when the motorcycle crosses the finish line for the last time (before the timing is stopped) to the remaining fraction of the lap which will make up the total time.

#### **Example 2:**

On a circuit of 3 km in length, a rider is attempting to beat the 6 hours record. He has covered 300 laps of the circuit in 5 hours, 59 minutes and 7 seconds. He is therefore 53 seconds short of 6 hours. He must cover one more lap of the circuit. This lap takes him 72 seconds. The distance covered during these remaining 53 seconds is calculated on this last lap.

#### **Result:**

---

In 6 hours, he has covered 300 x 3 km + 53/72nds of 3 km (one lap). This gives a total of 902.208 km. In this example, the remaining 53 seconds are expressed as a fraction of 72.

### **1.27. RATIFICATION OF WORLD RECORDS**

When all the necessary documentation for a complete attempt has been received and checked by the FIM Administration, the results shall be published on the FIM website (<https://www.fim-landspeed-worldrecords.com/en/>).

If any objections are made concerning the provisional records, they must reach the FIM Administration within one month after publication. If after one month no objection has been received, the results will automatically be ratified by the FIM Circuit Racing Commission (CCR).

After the ratification of a record, a certificate will be issued and sent to the riders' FMN.

### **1.28. PUBLICATION OF RESULTS AND ADVERTISING**

If a record is still in the process of being ratified, any advertising concerning the results of the attempt must clearly state, in sufficiently legible characters:

**"SUBJECT TO FIM RATIFICATION".**

These requirements must be respected, and infringement will entail a fine and/or other penalty stated in the FIM Regulations.

### **1.29. DOCUMENTS REQUIRED FOR WORLD RECORD RATIFICATION**

The following documents must be sent to the FIM Administration immediately after the record attempt with a copy to the FIM Officials and/or the FMNR.

- Timing sheets certified by the Chief Timekeeper, the time recorded (for long distance records, the time recorded of each lap) as per Sporting Appendix D: "Template Timing sheet for results" or acceptable approved electronic means.
- For special vehicles, upon request, documented written proof must certify that the vehicle was in contact with the ground for at least 90% of the distance travelled.

### **1.30. CERTIFICATE OF ENGINE CHARACTERISTICS**

The Final Technical Control Form must provide the following details according to the type of engine used:

- The record category (Cf. Art.1.2)  
*Example: Short distance records, 1 km/1 mile with standing start*
- The category, group and division (Cf. Art. 1.16)  
*Example: Non-streamlined*
- The type  
In all record attempts, the type of engine must be stated on the Technical Control Form, either: *Naturally aspirated, Supercharged or Turbocharged.*  
*Example: Internal combustion, forced ignition (diesel), rotary engines, etc.*
- For Piston Engines:
  - The cycle (2 or 4 stroke),

- The number of cylinders,
- The bore and stroke,
- The class
- The resulting total cylinder capacity.
- The record category (Cf. Art. 1.16.1)

In addition to the above points, for rotary engines with a single capacity cylinder (geometric), the system of carburation and ignition must be stated.

The measurement of the cylinder must be made by a qualified Technical Steward.

### **1.31. PROTEST AND APPEAL**

(Cf. Art. 4 of the FIM Disciplinary & Arbitration Code)

#### **Protest**

All protests are to be formulated in accordance with the FIM Disciplinary and Arbitration Code.

The protest must be presented in writing to the FIM Referee one (1) hour at the latest after end of the attempt.

The security deposit for a protest to the FIM Referee is 660 € (Euro).

#### **Appeal**

All appeals are to be formulated in accordance with the FIM Disciplinary and Arbitration Code.

An appeal may be made in writing against a decision of the FIM Referee to the International Disciplinary Court (CDI) within 5 days.

The security deposit for an appeal against the FIM Referee decision is 1320 € (Euro).

After the exhaustion of the FIM internal instances, an appeal to the CAS may be lodged within 5 days at the latest. The time limits shall be taken from the date and time of receipt of the decision by the appellant.

## **SPORTING APPENDICES**

**1.A. PROVISIONAL COURSE/TRACK MAP**

**1.B. RIDER ENTRY APPLICATION FORM - SHORT DISTANCE RECORDS**

**1.C. RIDER ENTRY APPLICATION FORM - LONG DISTANCE RECORDS**

**1.D. TEMPLATE TIMING SHEET FOR RESULTS**

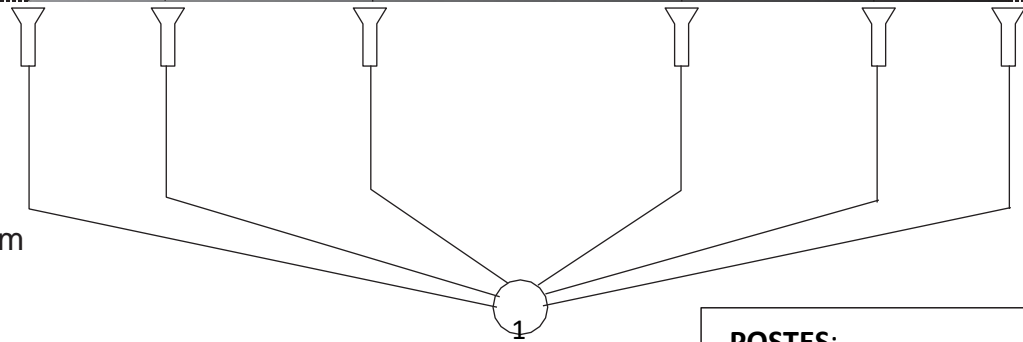


1 km

¼ mile


surface, the minimum braking distances are defined according with the top speeds of the bikes:

- Up to 250 km/h -> 700 m
- Up to 300 km/h -> 800 m
- Up to 350 km/h -> 1100 m
- Up to 400 km/h -> 1400 m
- Up to 500 km/h -> 1500 m




- ①
- ②
- ③
- ④

**POSTES:**

- ① Timekeeping
- ② Ambulance(s)
- ③ Fire/ Rescue
- ④ Racing Officials
-  Lightbeam

**REMARKS:**

	<b>FIM Land Speed World Records Track Inspection</b>	
<b>Homologation</b>	<b>Grade H</b>	
<b>Track Inspector Name: Date: Signature:</b>		



# FIM LAND SPEED WORLD RECORDS APPLICATION FORM SHORT DISTANCE RECORDS, LONG DISTANCE AND PERIOD RECORDS

The form is available: <https://fim.jotform.com/233624092136048>

Please return this form and documents at the latest **1 month (30 days)** before the date set for the attempt or the start of the event.

By making the application, the rider must ensure that the applicant is in conformity with and will respect FIM Regulations and Codes in force\* (see list below).

PS: It is strongly recommended to send with your registration form some photos of the vehicle (each side + front + rear) and of each safety points + braking systems.

## **IMPORTANT NOTICE**

The application form & related documents are for advance registration purposes. The registration form does not guarantee that the participants' machine has been automatically accepted. The participants' machines will be subject to a technical inspection by the appointed FIM Official during the event before being permitted to go on the course/track.

\* The FIM regulations and Codes that apply for all FIM Land Speed World records events are:

- FIM Land Speed World Records Regulations
- FIM Sporting Code and FIM Disciplinary & Arbitration Codes
- FIM Medical Code
- FIM Anti-Doping Code
- FIM Environmental Code
- FIM Code of Ethics

And the Supplementary Regulations of the event the participant registers to.

The current FIM Regulations & Codes are available on:

<https://www.fim-moto.com/en/documents>





## 2. TECHNICAL REGULATIONS

### 2.1. INTRODUCTION

The term 'motorcycle' covers all vehicles having, in principle, less than four wheels, propelled by an engine and designed essentially for the carriage of one or more persons of which one is the rider of the vehicle. The wheels must normally be in contact with the ground except momentarily or in certain exceptional circumstances.

### 2.2. FREEDOM OF CONSTRUCTION

A motorcycle conforms to the requirements of the FIM Regulations, to the Supplementary Regulations, as well as to a number of specific conditions that the FIM may require for certain competitions. No further restriction is placed on the make, construction or type of motorcycle used.

All solo motorcycles (Group A) must be constructed in such a way that they are entirely controlled by a rider (see Diagrams A, B & C).

Motorcycles with Sidecars (Group B) must be constructed to carry a passenger (see Diagram D).

Diagrams in Appendices.

### 2.3. CATEGORIES AND GROUPS

Motorcycles are divided into categories which must be observed for all meetings for World Record attempts (see FIM Land Speed World Records Sporting Regulations).

### 2.4. DIVISIONS, TYPES AND CLASSES

Groups are again separated into Divisions, Types and Classes.

**Cf. Arts. 1.15 and 1.16** in the FIM Land Speed World Records Sporting Regulations and in Art. 2.15. A and in Art. 2.15. B hereunder.

### 2.5. MEASUREMENT OF CAPACITY

#### 2.5.1. Reciprocating Movements Engine, "Otto" Cycle

The capacity of each engine cylinder is calculated by the geometric formula which gives the volume of a cylinder, the diameter is represented by the bore, and the height by the space swept by the piston from its highest to lowest point:

$$\text{Capacity} = \frac{D^2 \times 3.1416 \times C}{4}$$

where D = bore  
and C = stroke

When a cylinder bore is not circular the cross-sectional area must be determined by a suitable geometrical method or calculation, then multiplied by the stroke to determine capacity.

When measuring, a tolerance of 1/10 mm is permitted in the bore. If with this tolerance the capacity limit is exceeded for the class in question, a further measurement must be taken with the engine cold (at ambient temperature), to 1/100 mm limits.

### 2.5.2. Rotary Engines

The capacity of an engine which determines the class in which the motorcycle shall compete in a meeting shall be calculated by:

$$\text{Capacity} = \frac{2 \times V}{N}$$

where V = total capacity of all the chambers comprising the engine  
and N = number of turns of the motor necessary to complete one cycle in a chamber.

This engine is classified as a 4-stroke.

### 2.5.3. Wankel System

For Wankel system engines with a triangular piston, the capacity is given by the formula:

$$\text{Capacity} = 2 \times V \times D$$

where V = capacity of a single chamber  
and D = number of rotors.

Classified as a 4-stroke.

## 2.6. SUPERCHARGING

An engine whether 2-stroke or 4-stroke coming within any one of the recognised classes as determined by the capacity of the working cylinder shall not be considered as supercharged when in respect of one engine cycle, the total capacity measured geometrically, of the fuel charging device or devices, including the capacity of the working cylinder, (if used for inspirating the fuel) does not exceed the maximum capacity of the class in question.

Direct injection of fuel is not considered to be supercharging. The use of nitrous – oxide will be considered as an external aid, similar to ‘forced’ induction’, turbo- or ‘supercharging’.

## 2.7. MOTORCYCLE WEIGHTS

Weighing scales must have been certified within two (2) years prior to their use. A certificate (or copy) must be presented to the FIM Technical Director.

(A 1 % tolerance in the weight of the machine at the post-race control is accepted, except when otherwise stated in the ‘Additional Specifications’ of the Category/Class concerned.)

### 2.7.1. Weights of Motorcycles without a Thermic Engine

For electric powered vehicles, weight limits define the Classes. These vehicles are weighed WITH all the batteries. In between the runs for an attempt, batteries cannot be added to or taken out of the vehicle. All batteries (battery packs) must be securely fitted.

### **2.7.2. Ballast**

On three wheeled vehicles and cycle-cars, where the participation of a passenger is not compulsory, a ballast of 60 kg must be securely fixed to the machine on an area provided for this purpose. When these vehicles are fitted with an engine of up to 250 cc, the max ballast is 30 kg. The ballast must be shown during verification and properly sealed to the motorcycles.

Ballast must be made from solid metallic piece/s, firmly, securely connected, either through an adapter or directly to the main frame or engine, with minimum 2 steel bolts (min. 8 mm diameter, 8.8 grade or over). Fuel in the fuel tank can be used as ballast.

### **2.7.3. For Groups B1, B2, and B3:**

A passenger may not be carried.

## **2.8. DESIGNATION OF MAKE**

When two manufacturers are involved in the construction of a motorcycle the name of the chassis manufacturer and engine manufacturer must appear on the machine.

## **2.9. DEFINITION OF A PROTOTYPE**

A prototype is a vehicle which must conform to the safety requirements as written in the FIM Code applicable to the type of competition for which it is to be used.

## **2.10. GENERAL SPECIFICATIONS**

Specifications apply to all vehicles of the groups indicated and to all types of competitions except where otherwise stated in the corresponding section of the FIM Regulations. Providing that the following regulations are complied with, the constructor is free to be innovative with regards to design, materials and overall construction of the motorcycle.

### **2.10.1. Engine**

The number of cylinders in an engine is determined by the number of combustion chambers. If separate combustion spaces are used, they must be connected by an unrestricted passage of minimum cross-sectional area at least 50 % of the total inlet port area.

### **2.10.2. Streamlining**

#### **Introduction**

No part of a motorcycle (with the exception of 'Partially Streamlined Vehicles' and extreme aerodynamic vehicles, also known as 'Streamliners') may extend beyond the wheels. No airfoils, spoilers or movable external control surfaces are allowed.

The seat shall not be placed directly above the rear wheel.

The maximum height of the back of the rider's seat is 150 mm. This will be measured from the lowest point of the rigid base of the seat to the uppermost part of the fairing behind the rider.

The fuel cap must be fitted in such a way that it does not protrude in relation to the streamlining or tank profile and cannot be torn off in a crash.

### **2.10.3. Inclination and Suspension of Motorcycles**

All 2-wheel vehicles, when unloaded, must be capable of being inclined to an angle of 20° from the vertical without any part other than the tyre being in contact with the ground. For 'Dragsters', a minimum angle of inclination is required for the rider to retain full control.

### **2.10.4. Tyres for Solos**

The rider/team has the sole responsibility of ensuring tires are rated for their targeted top speed and for inspecting the condition of tires before and after each run.

As a result of the rapid evolution of technology and the increased speed that it brings, it is recommended that when choosing tires for the meet, the rider choose a set that is rated for speeds higher than the class record. It is also recommended that if the rider has any questions, they should contact the tire manufacturer to ensure that they are using a tire that meets the speed requirement needed.

The minimum tread depth for tyres with ratings of under 320 km/h (200 mph) is 2.5 mm.

Tyres that exhibit cords shall be prohibited.

All vehicle tyres (tubeless included) are required to have metal valve stems and metal valve caps.

Angled valve stems may be safety wired to resist centrifugal force deflection.

The minimum distance between the surface of the tyre and with suspensions fully compressed must be sufficient to provide clearance with any parts of the motorcycle at any speed.

Participants using under-rated tyres may be excluded from competition.

### **2.10.5. Tyres for Sidecars**

The appendices mentioned in Art. 2.10.4 above for solo motorcycle tyres also apply to Sidecars.

## **2.11. NUMBERS AND NUMBER PLATES** **(includes: 'non-streamlined' and 'partially streamlined' motorcycles)**

Each vehicle shall have two positions for numbers, fully visible, which shall not be obscured by the rider in position. Each number (and plate) shall be placed on either side of the machine (see Diagram E).

Numbers shall be easily legible, in a clear simple font and contrast strongly with the background colour.

The minimum sizes for numbers are: height - 150 mm, width - 80 mm, stroke – 25 mm.

For 'non-streamlined' motorcycles: numbers shall be affixed on number plates which are not part of the streamlining shall be made of flexible materials only (i.e. ABS plastics, etc.). All other materials are prohibited.

For 'partially' streamlined' motorcycles: number shall be affixed on the streamlining or on number plates (with the same requirements as above).

All number plate corners and edges shall be rounded (with a radius) and without any sharp edges.

## **2.12. EQUIPMENT REQUIREMENTS**

### **2.12.1. Fuel Supply and Shut-off Valve**

The vehicles shall have an efficient positive fuel shut-off which the rider can activate without their hands leaving the handlebars.

All pressurised fuel lines, including non-valved fuel lines shall be reinforced by braided steel (or equivalent construction).

Nitrous oxide applications shall have a protected shut-off valve system.

In case of the fuel pump is external to the fuel tank, an additional and operational fuel shut-off valve must be directly mounted on the fuel tank (no hose in between).

### **2.12.2. Air Induction**

Air induction created solely by depression and/or with the aid of pressure created by passive external systems (i.e. 'ram' air) is considered as naturally aspirated.

Air induction enhanced by active devices such as supercharging or turbo-charging is considered as forced induction.

### **2.12.3. Supercharging**

Superchargers and turbochargers shall be separated from the rider, either by a cover of steel plate at least 3 mm thick or a ballistic blanket that meets SEMA specifications 14-1, or by a vehicle or engine structure that provides equivalent protection.

### **2.12.4. Engine Cut-off**

Two shut-off switches are required to stop the engine/motor power (including any nitrous oxide systems).

The rider shall be able to operate one cut-off switch with his hands placed on the handlebars.

The other cut-off switch shall be located on the outside of the cockpit.

Electric fuel pumps must be wired through a circuit cut-out which will operate automatically in the event of an accident.

### **2.12.5. Hand and Foot Controls**

From fork stop to fork stop, the throttle grip (power control) must remain self-closing.

Foot operated throttles shall have a toe clip.

Hand controls (clutch and brake levers) shall have a ball end with a minimum diameter of 12.5 mm (1/2"). Flattened ball lever ends are acceptable if all edges are rounded. All control ends shall be an integral part of the lever.

Foot operated controls shall pivot independently.

When riders are in their riding position, a minimum distance of 250 mm (10") between thumbs shall be respected.

All handlebars shall extend outside each fork tube by minimum of 150 mm (6"). (This rule is not applicable to 'Streamliners'.)

Steering stops shall limit the rider's hands from touching the fairing or tank at full right and left travel.

Exposed handlebar ends must be plugged with a solid material or rubber covered. The repair by welding of light alloy handlebars is prohibited.

Riders may be asked to demonstrate their ability to operate the vehicle with their controls set up.

#### **2.12.6. Steering Dampers**

A functional steering damper is required in classes that have a record speed of 200 km/h (125 mph) or more. This steering damper may not act as a fork stop.

#### **2.12.7. Foot Rests (except for Scooters/ 50 cc Automatics and Moped)**

Only one pair of functional footrests is allowed. All footrests shall be able to fold.

Footrests, when folding must be fitted with a device (i.e. springloaded) which automatically returns them to the normal position.

On 'partially streamlined' vehicles, foot rests may be mounted rigid only when they are shielded by the vehicle's streamlining and shall not be in contact with the surface when inclined.

Exposed footrest ends must be plugged with a solid material or rubber covered.

Footrests shall be positioned in front of the rear axle.

#### **2.12.8. Brakes**

For speed record attempts taking place on concrete, tarmac/adam/asphalt surface, vehicles in Groups A, B, C, F, J & Y must be fitted with at least 1 efficient braking system operating on at least 2 of the wheels and operating independently and concentrically with the wheel.

A second efficient and independent mechanical braking system is mandatory (in case of failure of the main one).

For the electric motorcycles:

- A. In case of energy regeneration system (considered as the main braking system), a second mechanical braking system operating on at least 1 of the wheels remain compulsory.
- B. If no energy regeneration system > 2 mechanical braking systems operating independently are compulsory.

#### **2.12.9. Transmission/ Chain Covers**

All transmission drives shall be protected with a guard which covers, at least, the outer perimeter from the top half of the first sprocket to the rearmost portion of the final sprocket.

Guards shall be of suitable steel (minimum 1.5 mm thickness) or alloy material (minimum 3 mm) and measure no less than 6 mm wider than the chain/belt.

#### **2.12.10. Lights (front and rear)**

Headlamps, if not removed, shall be at least completely taped with a non-transparent tape to hold broken glass.

#### **2.12.11. Mirrors**

'Stand alone' type rear view mirrors shall be removed.

Mirrors incorporated into a fairing (bodywork), shall be completely taped with a non-transparent tape.

#### **2.12.12. Safety and Locking Devices**

Engine and transmission oil lines, when containing positive pressure shall have swaged connectors. All fluid drain plugs shall be 'safety' wired.

Axle fasteners shall have a secondary functional anti-rotation or locking device. Washers may not be used for this purpose.

#### **2.12.13. Exhausts/ Silencers Systems**

The exhaust/silencer shall end before the rear vertical tangent of the rear tyre.

### **2.13. FUELS, OILS AND COOLANTS**

#### **2.13.1. Fuels**

Fuel shall be liquid at ambient pressure and temperature and shall be used as such. (applicable for propulsion model Type I, II, II, IV; Cf. also Art. 1.19.2)

Acceptable fuels include alcohol, methanol, ethanol, nitrous oxide, nitro-methane, hydrogen, diesel, gasoline.

Violation of this fuels section is grounds for disqualification.

#### **2.13.2. Air**

Only ambient air may be mixed with the fuel as an oxidant (except for nitrous oxide applications).

### **2.13.3. Primary Tests**

- a) The FIM may require tests of fuels to be administered before, or at the time of delivery to, an event at which such fuels are to be used.
- b) The FIM may request any person or organisation, being a potential Official Supplier of fuel, to submit a sample for testing for conformity with the fuel specifications.

### **2.13.4. Fuel Storage**

Fuel may only be stored in fuel approved transportation containers (metal containers are strongly recommended).

A maximum of 60 litres of fuel, stored in a sealable container, is allowed in the competitor's pit.

Fire fighting equipment, protective devices and staff must conform to the requirements imposed by the local authorities and by-laws.

The organiser must have fire extinguishers of a size and type approved by the local by-laws, available to each competitor in the pit area.

### **2.13.5. Coolants**

The only liquid engine coolants permitted other than lubricating oil shall be water.

For electric motorcycles: di-electric fluids are permitted.

## **2.14. EQUIPMENT, PROTECTIVE CLOTHING AND HELMETS**

It is compulsory that each rider must begin each race event with at least one complete set of undamaged safety equipment. A complete set of safety equipment shall contain:

- Helmet
- Leather Suit, 1-piece
- Gloves
- Boots
- Back Protector
- Chest Protector (optional, highly recommended)
- (Personal) Airbag (optional, highly recommended)

The equipment must be worn, correctly fastened at all times, during on-track activity.

### **2.14.1. Safety Equipment Control**

- a) At Technical Control, one complete set of undamaged safety equipment must be presented and checked for the following:
  - Helmet: a marking indicating certification to the helmet standard (see below).
  - Leather Suit with additional leather padding or other protection on the principal contact points, knees, elbows shoulders, hips that conform to EN1621-1:2012. Check also point c)
  - Linings or undergarments must not be made of a synthetic material which might melt and cause damage to the rider's skin.



- Riders must also wear leather gloves and boots, which with leather suit provide complete coverage from the neck down.
- Back protector: must comply with EN1621-2, CB (“central back”) or FB (“full back”) Level 1 or 2.
- Chest protector is highly recommended (with or without airbag protection in the suit): prEN1621-3.

b) At any time during the event, the FIM Technical Director may request a piece of riders’ equipment in order to check that it meets the requirements listed.

c) The use of sliders (specific parts of the riders’ safety equipment, either permanently fixed or removable, intended to make regular contact with the track surface to assist the rider), is permitted on the knees, elbows or any other parts of the race suit, where it is deemed necessary.

### 2.14.2. Rider’ Protective Equipment & Helmets – Minimum Requirements

#### Standards for Helmet and Visor:

- Helmets must be of the full-face type and conform to at least one of the following recognized Standards, and be labeled:

#### Mandatory in all categories (except for “Streamliners”):

Helmets must comply with the FIM helmet standard(s). See example of label below:



A list of FIM Homologated helmets is available on [www.frhp.org](http://www.frhp.org).

As from 01/01/2024, FIM homologated helmets according to the FRHPhe-02 (with a valid FIM homologated label) **are** strongly recommended, and will be mandatory as from 01/01/2026. All the other standards will be forbidden.

For “Streamliners”:

Helmets must comply with either: the FIM helmet standard (here above) or with the USA helmet standard. See example of label below:



+ SFI Spec 31.1.

SFI: Safety Foundation Inc. (See: [www.sfindoundation.com/article-3](http://www.sfindoundation.com/article-3)) (with fire retardant lining, for use in closed driver compartments).

- Visors must be made of a shatterproof material.
- Disposable visor ‘tear-offs’ are permitted.
- A protective lower face cover must be present and must be not detachable, not moveable and made of the same material of the shell.
- Helmets constructed with an outer shell made of more than one piece are not permitted (e.g. they must not contain any seam).
- A retention system with a strap and the double D ring closing system is recommended.
- Helmet liners, neck-brace and helmet balaclavas shall be made with fire-retardant materials (i.e. NOMEX®).
- The minimum standard for the riders’ suits, gloves, and boots is SFI 3-2A.

**2.14.3. Post-crash Riders’ Safety Equipment Check**

After a crash the FIM Technical Director may at his discretion request that the rider’s safety equipment is checked prior to the start of the following practice session, warm up or race.

In the event that any item of equipment is considered, by either the FIM Technical Director or the representative of the manufacturer of the item, to be too damaged for use on track, the rider will be required to replace or repair the item before being permitted on track.

Any question concerning the condition and suitability for use of the riders’ safety equipment shall be decided by the FIM Technical Director, who may consult with the manufacturers of the product before making a final decision.

**2.15. SPECIFICATIONS FOR VEHICLES USED FOR SHORT DISTANCE WORLD RECORD ATTEMPTS**

Vehicles are defined by their streamlining as follows:

**A. ‘NON STREAMLINED’ Vehicles (see Diagram A)**

Any type of aerodynamic aid or streamlining device is prohibited in this class. A front fender is compulsory and shall be restricted to the following size:

- The front fender may only cover the contour of the tyre until the rim, over a maximum section of 135° of the wheel, when looked upon from the side.
- The forward tip of the front fender shall not exceed forwards of an imaginary line drawn through the centre of the front wheel axle at an angle of 45°.
- The front fender and its section going to the fixing point(s), shall cover the forklegs partially (max 50%), and in a parallel line.

Any aerodynamic aid at the rear of the motorcycle (including the riders' seat section), shall not exceed past the most rearward edge of the rear tyre, shall not be higher than 150 mm above the lowest section of the seatbase, nor extend below the seat base by more than 25 mm.

Objects are considered 'streamlined' if they control the airflow around the motorcycle and/or rider or are placed to reduce aerodynamic drag.

#### **B. 'PARTIALLY STREAMLINED' Vehicles (see Diagram B)**

Aerodynamic aids or streamlining devices are allowed with the following restrictions.

All measurements will be taken with the designated rider seated on the motorcycle, with leathers, boots and helmet.

A team member may assist only to keeping the motorcycle upright. No other forces may be applied.

- **Streamlining:** The rider, when in racing position, must remain completely visible from either side of the motorcycle and from above, without having to look through any material. Only hands and forearms may be hidden when viewed from either side and from above. The rider must have unrestricted (fore/aft) movement of the arms when seated in racing position.

With the rider in racing position, no part of the streamlining shall cover the front wheel rim when viewed perpendicular from the side, (with exception: the area behind the front fork down to the horizontal line drawn through the front wheel axle as limit).

- **A front fender** is compulsory but shall be restricted in line with the following requirements:
  - Viewed from either side, at least 180° of the lower part of the front wheel and tyre shall remain visible.
  - No part of the front fender shall be below a horizontal line drawn through the centre of the front wheel axle and in the front fork/ - suspension axis.
  - The front and rear section of the front fender shall not make contact with any part of the motorcycle.
- **Any aerodynamic aid** at the rear of the motorcycle, including the riders' seat section, shall not be higher than 150 mm above the lowest section of the seatbase and shall not exceed more than 400 mm past the most rearward edge of the rear tyre.

All sections of aerodynamic aid shall remain above a horizontal line, re with a minimum clearance of 1" (25mm) above the ground (on a flat surface, with the motorcycle measured with the rider in racing position (in static), see above).

Furthermore, front and rear streamlining aids shall each have a minimum of three (3) mounting points.

### **C. STREAMLINERS (Group Y – Special construction vehicles) (see Diagram C)**

In order for a vehicle to be defined as a 'Streamliner':

The rider shall be inside an enclosed compartment. A firewall shall separate the rider from the engine compartment. A substantial roll bar or equivalent structure shall be securely fitted to a part of the frame.

Full streamlining, including those which extend beyond the wheels, is allowed, with the following exceptions:

No movable external control surfaces are allowed. No airfoils or spoilers are allowed if not integrated in the basic streamlined form. Only one (1) single rear fixed vertical fin is allowed.

The vehicle, unloaded, must be capable of being leaned at an angle of 20° degrees (minimum) from the vertical position without touching the ground, other than the tyres.

A maximum of two stabilisers (in the form of wheels or skids) may be fitted to a vehicle constructed as a 'streamliner', only to aid stability at low speeds. These aids must be retracted during the record attempt.

#### **2.15.1. Numbers and Background**

Each vehicle shall have numbers and letters. Numbers and letters shall be of one solid colour and in contrast with the background area colour.

- Background area – minimum size: 250 mm x 300 mm (10" x 12")
- Numbers – minimum size: 200 mm x 30 mm (8" x 1-1/4")

#### **2.15.2. Frame Construction**

The constructor of a frame made of other than high grade steel shall submit frame structure information that documents the durability of the structure. Constructors may be asked to provide test certificates on components and on stress examination as required.

#### **2.15.3. Canopy/ Windshield**

The canopy windshield shall be constructed of shatterproof plastic and provide a minimum of 120° of forward horizontal vision when the rider is in place.

The canopy assembly shall be removable from the inside or the outside without the use of any tools.

The outside of the Streamliner shall have clear markings with specific instructions for canopy removal.

All exterior access, operation points and all controls required for 'Main Ignition Shut-off' and for 'Canopy Release', shall be marked and clearly visible on the exterior of the Streamliner body.

The rider shall be able to exit the cockpit of the Streamliner, be it up-right or on its side, without any outside assistance.

#### **2.15.4. External Operation and Emergency Controls**

All exterior access, operation points and all controls required for 'Main Ignition Shut-off' and for 'Canopy Release', shall be marked and clearly visible on the exterior of the Streamliner body.

#### **2.15.5. Batteries**

Two emergency battery cut-out switches are mandatory; one inside within reach of the rider and one outside the Streamliner.

All batteries shall be securely mounted. Batteries mounted in the rider's compartment shall be on the inside of an acid spill-proof and sealed box.

'Tie'-down straps or elastic cords shall not be used to hold batteries in place.

#### **2.15.6. Roll Bars**

A Streamliner shall have a minimum of two (2) roll bars: one in front of the rider's head and one behind the rider's head.

Roll bars should have a minimum outside diameter of 31.5 mm (1 1/4"), a wall thickness of at least 2.2 mm (.090") and a steel cap of at least of 2.2 mm (.090") thick.

The roll bar shall surround a minimum of 140° of the upper part of the rider's head. The roll bar shall be braced on each side of the main frame.

Whilst wearing a helmet, there shall not be more than 5 cm (2") head movement within the roll bar. Fireproof padding may be added.

Any other roll cage design shall be tested for strength and have had a finite element study to prove this.

#### **2.15.7. Rider's Compartment/ Cockpit**

The roll cage and all interior panels shall prevent the rider's arms and/or legs from extending outside the rider's compartment. All mounting tabs, brackets and protrusions shall be free of sharp edges.

The rider's compartment shall have an outside air source.

All riders (with complete attire) shall demonstrate the ability to exit the compartment within 30 seconds without assistance.

**2.15.8. Fuel Shut-off**

Streamliners shall have a positive fuel shut-off safety valve which can be activated from the rider's compartment.

**2.15.9. Engine Compartments**

Engine and fuel compartments shall be sealed off from the rider with at least one firewall.

Engine and fuel compartments shall have at least one 25 mm (1") opening for drainage.

Wiring, steering linkage and controls shall be sealed through firewalls to avoid leakage into the rider's compartment.

**2.15.10. Fuel Containment**

Fuel and oil tanks are not permitted inside the rider's compartment. Fuel lines shall not run through the rider's compartment.

Fuel compartments shall have at least one 25 mm (1") opening for drainage.

**2.15.11. Steering Mechanism**

All parts of the steering mechanism, including links, rods and cables shall be able to move freely throughout the Streamliner body, including the firewall, without excessive play.

The steering assembly shall be directly and securely mounted to the frame. All steering components shall use bolts of grade '5' quality minimum.

Welding on steering components shall be scrutinized and may be subject to x-ray certification.

The handlebar/steering assembly in the cockpit shall be mounted in such a way as to allow the rider to evacuate rapidly in an emergency situation.

Quick disconnects for handlebars are permitted, providing that these are safely attached.

**2.15.12. Wheel Protection**

A bulkhead shall separate the rider from the front wheel.

The front wheel shall be shielded to protect the rider in case of a tyre failure.

Each tyre compartment shall be sealed to prevent any dust, salt, etc., from entering the driver's compartment.

**2.15.13. Skids and other Supports**

Motorcycle Streamliners which use skids shall have a positive 'up' and 'down'- locking feature. These positions shall be made visible to the rider when seated in the cockpit.

Skids shall have a turned up front edge to prevent digging into the track surface and shall be raised to the up position as soon the Streamliner is rolling and has found stability.

#### **2.15.14. Fire Extinguishers**

Fire extinguisher(s) shall be able to extinguish a fire in both rider and engine compartments.

The minimum capacity for fire extinguishers required onboard Streamliners shall be:

- for speeds up to 250 km/h (150 mph): 2 kg / 5lbs.
- for speeds exceeding 250 km/h (150 mph): 5 kg / 10lbs.

A manual fire extinguisher control system is mandatory and shall be within reach of the rider. Once engaged, it shall stay activated and be capable of extinguishing a fire.

The fire extinguishing control system shall also be able to be activated from the exterior of the Streamliner.

Automatic systems with a heat-sensing switch shall also have a manual control to override the fire extinguishing system.

Extinguishing agents shall be approved and certified for use in confined spaces.

All nozzles, lines, and valves shall be securely mounted. Hose clamps may not be used to fix these parts.

The installation of extinguishers shall be made according to the manufacturer's specifications. All fire extinguishing equipment certifications/inspection tags shall not be older than twelve months.

#### **2.15.15. Parachutes**

All Streamliners are required to have one functional parachute.

Where speeds over 400 km/h (250 mph) are to be reached, two (2) parachutes are required: one low speed parachute and one high speed parachute.

All parachutes shall be mounted on a part of the frame structure.

Automatic parachute deployment actuators are required for:

- Streamliners with an 'open' tail section: the parachute shall automatically deploy at 45° from upright.
- Streamliners with a closed tail section: the parachute shall automatically deploy at 40° from upright.

The rider shall be able to activate the parachute without his hands leaving the steering mechanism.

Parachute system operations shall be inspected for rider-activated deployment and automatic deployment at left and right angles.

Any failure in parachute operation or handling problems associated with parachute operation will require a re-inspection by the Technical Stewards.

### **2.15.16. Rider Protective Equipment & Helmets – Minimum Requirements**

Please refer to the Art. 2.14 EQUIPMENT, PROTECTIVE CLOTHING AND HELMETS (Cf. Art. 2.14.1, 2.14.2, 2.14.3).

### **2.15.17. Seat Belts and other Harness Systems**

A “seven point” seat belt/harness system is required to hold the rider’s body. These ‘seven points’ consist of:

- two shoulder harness (right and left)
- two lap belts (right and left)
- two crotch straps (right and left, sometimes referred to as anti-submarine straps since they keep the torso from sliding under the lap belts)
- the center strap (sometimes referred to as a supplemental crotch strap)

Shoulder and seat belts shall be installed according to the manufacturers’ specifications. A label shall show the date of manufacture and the date of inspection (not older than 5 years).

Shoulder and seat belts shall be attached to a part of the main frame structure. The harness mounting points on the frame shall be directly in line with the direction of pull. Bolts cannot be mounted by pushing through the webbing of the harness. Belt and harness mounting hardware shall not be exposed.

Belt and harness mounting hardware will be well protected to prevent rider in contact with any sharp edges or protruding components. Any belt attachment components on the outer plane of the chassis structure will be protected from sliding contact with track surfaces. Belts shall not be mounted or exposed on the engine side of the sealed firewall separating the cockpit area.

Shoulder harnesses shall not be able to slip off the rider’s shoulders when seated in position with all belts fastened and adjusted. Harnesses shall also be mounted in such way to keep the rider from moving if the vehicle becomes inverted.

Belt/harness systems with latch release shall have a cover over the latch release which prevents arm restraints from activating the latch assembly inadvertently. Aluminum hardware as a component of any belt system is not permitted.

Arm restraints are mandatory with anchor points on the harness assembly and secured to the frame.

Leg restraints are compulsory for any Streamliner where it is possible for the rider’s legs to be outside the rider’s compartment from any position while the Streamliner is rolling. Net type leg restraints are acceptable as long as the net allows the rider to exit the Streamliner without assistance.

### **2.15.18. Test Runs**

All new Streamliners shall have made a minimum of three successful trial runs to demonstrate stability and control prior to a record attempt.

The mandatory runs shall be at speeds which represent a percentage of the respective class record or of the Streamliners’ design speed to be attained:



- Run #1 shall not be more than 50% of the intended class-speed record or as directed.
- Run #2 shall not be more than 70% of the intended class-speed record or as directed.
- Run #3 shall not be more than 85% of the intended class-speed record or as directed.

Any rider exceeding the speed increment may be subjected to disciplinary action.

Each test run will include parachute deployment (with all body and canopy panels in place) and a demonstration of the total control by the rider of the Streamliner in operation.

Trial runs shall be closely observed by FMN and/or FIM representatives prior to advancing to the next speed increment.

#### **2.15.19. Rules on Assisted Starting for Streamliners**

In addition to any on-board starting devices, a 'push' type or 'tow'-start method is allowed, if deemed safe by the FIM Technical Director.

The maximum distance for an assisted start is 400 metres, counting from the starting point. No assisted starts shall take place within 800 meters (1/2 mile) from the first timing mark.

Once the '400' metre marker has been passed by the streamliner, no assistance vehicle is permitted to be on the track during the record attempt.

A flag (min 30 cm x 30 cm / 12"x 12") attached to the middle of the towline, shall be visible to the rider.

#### **2.15.20. Support Crew**

The Streamliner support crew shall present their pre-run checklist and must present it to the FIM Technical Director / FMN Technical Steward(s) at the initial vehicle inspection.

### **2.16. SPECIFICATIONS FOR SOLAR OR ELECTRIC POWERED VEHICLES**

#### Introduction

The technical concept is for motorcycles, 2- and 3-wheeled vehicles, having traction on one or both wheels, to be powered without the use of carbon-based fuels and having zero toxic/noxious emissions.

Amendments to the Technical Regulations may be made at any time in order to ensure fairer competitions.

#### **2.16.1. Groups and Classes**

##### **2.16.1.1. Solar Electrically Powered Vehicles**

Vehicles propelled by the direct or indirect conversion of solar energy.

### **2.16.1.2. Electrically Powered Vehicles**

2-Wheeled motorcycles, electric powered and propelled solely by stored electricity (battery/accumulator).

### **2.16.2. The number of electric motors and propelled wheels is free.Conformity**

It is the duty of each competitor to show the FIM Technical Director / FMN Technical Stewards of the meeting that his/her vehicle fully complies with these rules and the rules governing the meeting, in their entirety at all times.

### **2.16.3. Numbers and Number Plates**

Please refer to Art. 2.11.

### **2.16.4. Handlebars**

The minimum angle of rotation of the handlebar on each side of the centre line or mid position must be 15° for all solo motorcycles.

Whatever the position of the handlebars, the front wheel, tyre and the mudguard, a minimum clearance of 10 mm must remain with the motorcycle (parts).

Solid stops, (other than steering dampers) must be fitted to ensure a minimum clearance of 30 mm between the handlebar with levers and the body when on full lock to prevent the rider's fingers from becoming trapped.

Handlebar clamps must be very carefully radiused and engineered so as to avoid fracture points in the bar.

Exposed handlebar ends must be plugged with a solid material or rubber covered. The repair by welding of light alloy handlebars is prohibited.

### **2.16.5. Control Levers**

All handlebar levers (clutch, brake, etc.) must be ball ended (diameter of this ball to be at least 16 mm). This ball can also be flattened, but in any case the edges must be rounded (minimum thickness of this flattened part 14 mm). These ends must be permanently fixed and form an integral part of the lever.

Each control lever (hand and foot levers) must be mounted on an independent pivot.

The brake lever, if pivoted on the footrest axis, must work under all circumstances, such as when the footrest is bent or deformed.

### **2.16.6. Power Control**

From fork stop to fork stop, the throttle grip (power control) must remain self-closing.

### **2.16.7. Foot Rest/ Foot Controls**

Footrests, when folding must be fitted with a device (i.e. springloaded) which automatically returns them to the normal position.

Except for vehicles of Group A2 (scooters) foot rests may be mounted rigid only when they are shielded by the vehicle's streamlining and shall not be in contact with the surface when inclined.

Exposed footrest ends must be plugged with a solid material or rubber covered.

Non-folding footrests must have an end (plug) which is permanently fixed, made of aluminium, plastic, Teflon or equivalent type of material (min. radius of 8mm). The plug surface must be designed to reach the widest possible area of the footrest. The FIM Technical Director has the right to refuse any plug that does not satisfy this safety aim.

#### **2.16.8. Wheel and Rims**

Carbon wheels are forbidden.

If an OEM or aftermarket wheel is modified by the participant, he must supply the FIM Technical Director/Chief Technical Steward with documentation proving the correct dimensioning of the parts.

#### **2.16.9. Tyres**

Tyres are free.

The use of tyre warmers is allowed.

#### **2.16.10. Streamlining**

No moveable aerodynamic devices are permitted.

Air foils or spoilers may only be fitted on solo machines as an integral part of the fairing or seat. These must not exceed the width of the fairing nor be positioned above the height of the handlebar. Sharp edges must be rounded off. The use of composite materials is allowed.

The maximum width of the bodywork must not exceed 800 mm. The width of the seat or anything to its rear shall not be more than 500 mm.

Any part of the streamlining which faces rearwards must be finished with rounded edges.

The rider must be completely visible from either side except for the rider's hands and forearms which may be obscured by bodywork, the inclination of the number plate must not render the front number plate invisible when viewed from the front.

Bodywork must not extend beyond a line drawn vertically at a distance of 200 mm to the leading edge of the front tyre and a line drawn vertically at a distance of 400 mm to the rearward edge of the rear tyre. The suspension should be fully extended when the measurement is taken.

With both wheels (tyres) on the ground, it must be possible to lean an unloaded motorcycle at an angle of 20° from the vertical position without any other part touching the ground.

**2.16.11. Machine Weight**

Minimum vehicle weight is 100 kg (min.)

See also: Art. 1.16 in the FIM Land Speed World Records Sporting Regulations.

The machine will be weighed 'ready-to-race'. No weight tolerance will be applied at the technical verification checks after practice and race.

**2.16.12. Overall Dimensions**

- Maximum length of the vehicle: 2700 mm (motorcycles)
- Maximum width: 800 mm (2 wheeled vehicles)

**2.16.13. Materials**

For materials please refer to Art. 2.10.

**2.16.14. Chassis Number**

A unique number must be embossed visibly on an easily accessible part of the chassis. In addition, a label made from durable material must be affixed in an easily accessible and visible location. The label must permanently display the name of the manufacturer, the model of the vehicle and its chassis number.

**2.16.15. Electrical requirements (including electrical safety)**

Refer to the FIM Electric Regulations (and FIM CTI - Guidelines for Electric motorcycles) available on [www.fim-moto.com/en/documents](http://www.fim-moto.com/en/documents).

**2.17. SPECIFICATIONS FOR SCOOTERS / 50 CC AUTOMATICS AND MOPEDS****2.17.1. General Specifications**

All vehicles must belong to Category I, Group A2 and Group A3, as specified in these Regulations and must comply with the following requirements.

In case of conflict, the following specifications have priority.

**2.17.2. Front and/ or Side Numbers and Number Plates**

Please refer to Art. 2.11.

**2.17.3. Classes**

- Scooter A2 – CVT (automatic transmission)
- Scooter A2 – MGB (manual operated gearbox)
- 50cc Automatics/Mopeds

**2.17.4. Transmission****2.17.4.1.**

Transmissions must, in principle, be automatic. However, it is permitted to incorporate a manually operated transmission ratio locking device, except for scooters.

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**2.17.4.2.**

A manual clutch is forbidden.

**2.17.4.3.**

Exposed rotating parts of engine or transmission must be fitted with guards in such a manner that under no circumstances can the rider come into accidental contact. The original clutch basket must be reinforced with a steel ring.

**2.17.5. Main Frame**

For Scooters: The original frame may be modified. The engine/swing-arm mounting can be reinforced, and the rubber absorption blocks may be substituted by bearings.

**2.17.6. Handlebar**

The width of the handlebar shall be: minimum 400 mm and 650 mm maximum.

**2.17.7. Mudguards**

Front mudguards / fenders are strongly recommended.

**2.17.8. Fairing/ Body Work**

For scooters only, fairings may be added, but must turn with the handlebars.

**2.17.9. Footrests**

For safety reasons, pedals must be removed for competition racing.

With the exception of Scooters, footrests must be of the folding type or made from easily breakable material (plastic, etc.)

For Scooters, the rider will drive with his feet on the footrest platform.

**2.17.10. Tyres**

For mopeds, the total width of the tyre, mounted, shall not be more than 3.00" or 80 mm.

For Scooters, tyres must be as original and the maximum rim diameter must not exceed 400 mm. Tyre dimensions are free, but compatible with the ETRTO.

**2.17.11. Ignition Cut-out**

An ignition cut-out must be fitted to operate when the rider leaves the machine. This ignition cut-out system must interrupt the primary circuit and must be wired for both the supply and return of the current.

The ignition cut-out system must be placed as near to the centre of the handlebar as possible and must be operated by a non-elastic string of adequate length and thickness and strapped to the rider's right-hand wrist.

A spiral cable (similar to that of a telephone wire) of maximum 1 m extended length is permitted. The handlebars and the forks cannot be used as part of the electrical circuit: compulsory for mopeds, recommended for scooters.

#### **2.17.12. Fuel and Oil Tank**

Fuel and oil tank must be bolted, safely secured and with all drainplugs wired.

### **2.18. SPECIFICATIONS FOR SIDECARS (Cf. Diagram D)**

#### **2.18.1. General Specifications**

- a) Sidecars are vehicles with three wheels that make two or three tracks propelled by an engine, controlled exclusively by a driver.
- b) Providing that the following Regulations are complied with, the constructors are free to be innovative with regard to design, materials and overall construction of the Sidecar vehicle.

#### **2.18.2. Numbers and Number Plates**

Please refer to Art. 2.11.

#### **2.18.3. Rider's Position**

The rider's position, regardless whether or not a driving seat is fitted, must be such that the rider's feet are positioned behind the knees when looking in the driving direction.

#### **2.18.4. Protection**

Vehicles must have a solid and effective protection between the rider and the engine. This protection must prevent direct contact between the rider's body or his clothes and escaping flames or leaking fuel and oil.

#### **2.18.5. Aerodynamic Devices**

Spoilers and other aerodynamic devices are authorized on condition that they do not extend beyond the overall dimensions of the bodywork and are an integral part of the fairing and/or body.

#### **2.18.6. Windscreen**

The windscreen edge and the edges of all other exposed parts of the streamlining must be rounded.

#### **2.18.7. Ground Clearance**

The ground clearance measured over the entire length and width of the frame and other mechanical parts (engine, oil bay, exhaust and platforms) excluding the fairing, race ready, fully loaded with rider in a static racing position, must not be less than 50 mm (2") with the handlebars in straight position.

### **2.18.8. Fixing of the Sidecar**

The Sidecar must be fixed to the motorcycle in at least three points, if it is not an integral part of the chassis.

The fixing points must not allow movement at the joints. If the angle of the inclination is changeable, it must be locked in such a way that it is completely secured and not only clamped on.

### **2.18.9. Steering**

The motorcycle must be steered by a handlebar.

The handlebar extremities must not be lower than the front wheel spindle nor more than 500 mm behind the front wheel spindle in the straight-ahead position.

The steering axis must not be offset more than 75 mm from the front wheel centre line.

To reduce the torque in the steering it is allowed to displace the front wheel and the rear wheel. Maximum 'off-set' between front wheel and rear wheel axis is 100 mm.

### **2.18.10. Handlebars**

Whatever the position of the handlebars, there must be a space of at least 230 mm between the streamlining and the ends of the handlebars or other steering systems, including any attachments thereto.

### **2.18.11. Suspension**

Suspension of the front wheel must be designed so that under suspension action and in a straight-ahead position.

The fixing nuts and bolts of the front and rear suspensions must be secured by a safety wire.

### **2.18.12. Fuel Cap**

The fuel cap must be fitted in such a way that it does not protrude in relation to the fairing or the tank profile and cannot be torn off in a crash.

### **2.18.13. Battery**

The battery must be covered in such a way that the rider cannot come directly into contact with the battery or its contents.

### **2.18.14. Engine**

The engine must be positioned in such a way that the centre-line of the engine (by definition a position midway between centre lines of outermost cylinders for transversal engines, or the crankshaft for in-line engines) shall not exceed 160 mm beyond the centre-line of the rear wheel of the motorcycle. The engine must be positioned in front of the rear wheel.

### **2.18.15. Exhaust Pipes and Silencers**

Exhaust pipe(s) must not extend beyond the width of the Sidecar and the furthest extremity of the exhaust pipe must not exceed the vertical line drawn at a tangent to the rear edge of the Sidecar body.

The ends of the exhaust pipes fitted to the Sidecar should be positioned within the perimeter of the streamlining or protected to prevent injury.

### **2.18.16. Oil Catch Tanks and Breather Systems**

Where an oil breather pipe is fitted, the outlet must discharge into a catch tank located in an easily accessible position and which must be emptied before the start of a race.

The minimum size of a catch tank shall be 250cc for the gearbox and 500cc for the engine.

All 4-stroke motorcycles must have a closed breather system. The oil breather line must be connected and discharge in the airbox.

All possible measures must be taken to prevent the possible loss of waste oil so that it does not hinder a following rider (see Art. 2.13.5).

### **2.18.17. Oil Drain Plugs and Supply Pipes**

All oil drain plugs must be tight and must be drilled and wired in position. Oil supply lines must be correctly and securely wired in position. External oil filters and screws or bolts that enter an oil cavity must be safety wired.

### **2.18.18. Fuel Tank Breather Pipes**

Fuel tank breather pipes must be fitted with no-return valves. Fuel tank breather pipes must discharge into a catch tank, made of a suitable material, with a minimum volume of 250 cc.

### **2.18.19. Fuel and Oil Filler Caps**

Fuel and oil filler caps, when closed, must be leak proof. Additionally, they must be securely locked to prevent accidental opening at any time.

### **2.18.20. Tyres for Sidecars**

The appendices for Solo motorcycle tyres also apply to Sidecars.

When the springs are compressed to their maximum, there must remain a minimum wheel clearance of 15 mm to every fixed part.

## **2.19. PROCEDURES FOR TECHNICAL CONTROL**

### **2.19.1. Before the attempt(s):**

The rider is at all times responsible for his machine. The technical control is first and foremost focused on safety items. It is not an explicit statement that the vehicle is in conformity with the FIM rules.



- a. The rider, or his mechanic, must be present with the machine for Technical control within the time limits stated in the Supplementary Regulations.
- b. The rider, or his mechanic, must present a clean motorcycle and in conformity with the FIM rules. The rider, or his mechanic, may be accompanied by a maximum of 2 other persons.
- c. The rider must present his equipment (helmet, leathers, boots, gloves). The helmet must be marked by the FIM or FMN Technical Stewards.
- d. Technical inspections will only be carried out when the rider's application/entry form has been verified and confirmed by the Organiser and when the technical specification form of the motorcycle has been completed by the rider before the preliminary controls.
- e. An overall safety inspection of the motorcycle must be carried out in conformity with the FIM rules. Accepted motorcycles will be marked with paint or a sticker by the FIM or FMN Technical Stewards.
- f. The Chief Technical Steward must be in attendance for an event at least 1 hour before the technical verifications are due to start. He must inform the FIM Officials of his arrival.
- g. The Chief Technical Steward shall appoint the Technical Stewards to individual posts for the race, practices and final control.
- h. The Chief Technical Steward must ensure that all Technical Stewards, appointed for the event, carry out their duties in a proper manner.
- i. The FIM Technical Director/Chief Technical Steward must inform the FIM Officials of the results of the Technical control and submit this list to the FIM Officials.
- j. The FIM Technical Director/Chief Technical Steward has the right to inspect any part of the motorcycle at any time of the event.
- k. Any rider failing to report as required below may be disqualified from the meeting. The International Jury may forbid any team who does not comply with the rules, or any rider who can be a danger to other participants or to spectators, to take part in the practice sessions or in the races.
- l. The FIM Technical Director/Chief Technical Steward has the final authority in case of a dispute on the conformity of the parts in question and for acceptance thereof.
- m. In events with one or multiple participants, before each record attempt, the FIM Technical Director/Chief Technical Steward or appointed FIM Officials must

confirm that the motorcycle has passed the Technical control by checking the Technical control sticker before the motorcycles go on the track.

**2.19.2. During or in-between the attempts:**

- a. Only accepted motorcycles may be used in a record attempt.
- b. All machines must remain under control of a Technical Steward. In events with one or multiple participants, machines may be placed in the impound / closed-park area. The waiting area/holding point for the return run will be considered as a impound / closed-park area.
- c. If a motorcycle is involved in an accident, the FIM Technical Director/Chief Technical Steward must check the machine (together with the helmet and clothing of the rider involved), to ensure that no defect of a serious nature has occurred.
- d. If a rider's helmet is clearly defective, the FIM Technical Director/Chief Technical Steward must retain this helmet during the event (make the FIM visual helmet sticker invalid, for FIM homologated helmet: scan and declare this helmet as "crashed" in the FRHP database, remove the FIM visual helmet sticker stuck on the helmet and the FIM label sewn on the chin strap). The organiser may be required to send this helmet, together with the accident and medical report (and pictures and video, if available) to the Federation of the rider.
- e. If there are head injuries stated in the medical report, the helmet must then be sent to a neutral institute for examination (Zaragora FIM Impact Laboratory).
- f. Silencer sound levels may be checked by random choice during practice as well as after the event, if mentioned in the Supplementary Rules (SR's). On request of rider, team or mechanic, silencer sound levels of their motorcycle may be checked at any time during the event.
- g. The weight of a motorcycle may be checked at any time during the event (where applicable, ex: for electric vehicles). A random weight check may be held with minimum disturbance to the rider.

**2.19.3. After the attempts:**

Engine(s) cylinder capacity(ies) must be checked upon the request of the FIM Technical Director.

**2.20. VERIFICATION GUIDELINES FOR TECHNICAL STEWARDS**

Make sure all necessary measures and administrative equipment are in place at least 1 hour before the Technical control (see separate list) is due to open (time in Supplementary Regulations).

- Decide who is doing what and note decisions. "Efficiency" must be the watchword. Always keep cheerful and remember the reasons for Technical controls: SAFETY AND FAIRNESS.
- Be well informed. Make sure your FMN has supplied you with all technical "updates" that may have been issued subsequent to the printing of the Technical Rule Books.
- Copies of all homologation documents must be in your possession.
- Inspection must take place under cover with a large enough area (min. surface 100 sq. metres) to handle the technical verifications in two lines.
- Weighing apparatus must be accurate and practical. Certified master weights and their certificate must be available for verifying.

Rules regarding noise level and measurement must be respected.

### 1) Preparations and procedures

An area must be designated as the Technical Control Area. In this area, under the control of the FIM Technical Director/Chief Technical Steward, suitable equipment will be available to conduct proper inspections.

The Technical control will be carried out in accordance with the schedule set out in the Supplementary Regulations.

Technical Stewards must be available throughout the entire event to check motorcycles and equipment as required by the FIM Technical Director/Chief Technical Steward.

Presentation of a machine will be deemed as an implicit statement of conformity with the Technical Regulations.

The Technical Stewards must inspect the motorcycles for obvious safety omissions.

The Technical Stewards must inspect that the motorcycle conforms to all technical rules laid out in the Regulations.

- The weight scales (and sound meter), if required, will be available to the riders/teams for pre-race checking in the technical control area.
- Sound test (where required) should take place in a clear area adjacent to the Technical control at least 10 metres from any possible noise reflecting obstruction.
- At the conclusion of the inspections, a small sticker or coloured mark will be placed on the frame indicating that the machine had passed inspection
- The Technical Stewards must re-inspect any machine that has been involved in an accident.
- The Technical Stewards must be available, based on instructions from the FIM Technical Director/Chief Technical Steward, to re-inspect any motorcycle for technical compliance during the meeting.
- During the technical inspection in the closed park, the rider or his/her mechanics must assist with the inspections. Maximum two (2) team members per rider are allowed in the closed park during the post-race technical inspection. Downloading of data is allowed in the closed park.

### 2) Final inspection at the end of the record attempts

In accordance with the instructions of the FIM Technical Director:

### 3) **Appointment and attendance**

The Technical Stewards must be present and available during the opening hours of the Technical control area. The FIM Technical Director/Chief Technical Steward will instruct the Technical Stewards to verify motorcycles for compliance with technical and safety rules.

### 4) **Administration day / Initial Technical control:**

For all riders/ teams: min. 2 people

Tasks: Overall vehicle inspection, clothing and helmets weight control (i.e. for electric powered vehicles)

Administration tasks: 1 person

### 5) **Technical control during record attempt days**

Before attempts:

Vehicle/ Rider safety checks: as required

After attempt:

Weight (where applicable) 2 people

Engine sealing and/or displacement checks 2 people

Administration 1 person

**NOTE:** This is the required minimum of Technical Stewards. The actual number may be higher.

All final verification points to be decided in co-operation with the FIM Technical Director / and the Chief Technical Steward. Post-race checks are under extreme pressure. It is important to be very well organised.

The Chief Technical Steward must present a report to the FIM Technical Director after the technical verifications.

### 6) **Minimum Equipment list**

- Revolution meter
- Sound meter and calibrator
- Slide caliper
- Depth gauge
- Steel measuring tape
- Seals
- Weighing apparatus (scales) with calibration weights
- Tools for measuring engine capacity
- Tools for measuring valve lift
- Weighing apparatus for investigation of valve weights
- Stickers or paint markers for marking parts (engine, helmets, etc.)
- Magnet for materials testing
- Computer/Portable Laptop

7) **Document list**

- Regulations of the CURRENT YEAR
- Supplementary Regulations
- Technical Declaration + Scrutineering Forms (Technical Appendix 1)
- Writing materials

**TECHNICAL APPENDICES**

- 2.A. **TECHNICAL DECLARATION + SCRUTINEERING FORM**
- 2.B. **DIAGRAM A**
- 2.C. **DIAGRAM B**
- 2.D. **DIAGRAM C**
- 2.E. **DIAGRAM D**
- 2.F. **DIAGRAM E**



## Technical Appendix 1: TECHNICAL DECLARATION FORM LSWR

<b><u>GENERAL INFORMATION</u></b>	
Team (Name) or/and Race number	
Rider (First Name/Name)	
Event name/IMN	
Event date (dd/mm/year) + Venue (City, Country)	

<b><u>VEHICLE INFORMATION</u></b>	
Manufacturer/Model/Type/Year	
Frame Manufacturer/Model/Year	
Frame Number (+ material)	
CATEGORY	
GROUP	
DIVISION	
TYPE	
CLASSE	

<b><u>ENGINE INFORMATION</u></b>				
	Naturally aspirated		Turbocharged	
				Supercharged
Manufacturer/Model/Year				
Cycle/Number of cylinders				
Engine Number				
Bore (mm) x Stroke (mm)				
Single cylinder capacity (cc) (diameter <sup>2</sup> x 3.1416 x stroke /4)				
Total capacity declared (in cc)				

<b><u>SOLAR / ELECTRICALLY POWERED VEHICLES Art. 12.16.1/2</u></b>				
	Electric		AC	
				DC
Batteries (Make/Model/Number)				
Motor(s) (Make/Model/Number)				
Class (A or B) – Maximum Voltage (V)				
Energy Recovery System (Yes/No)				
Cut-out switch (lanyard)				
Others:				

<b>Date:</b>	<b>Rider's Signature:</b>

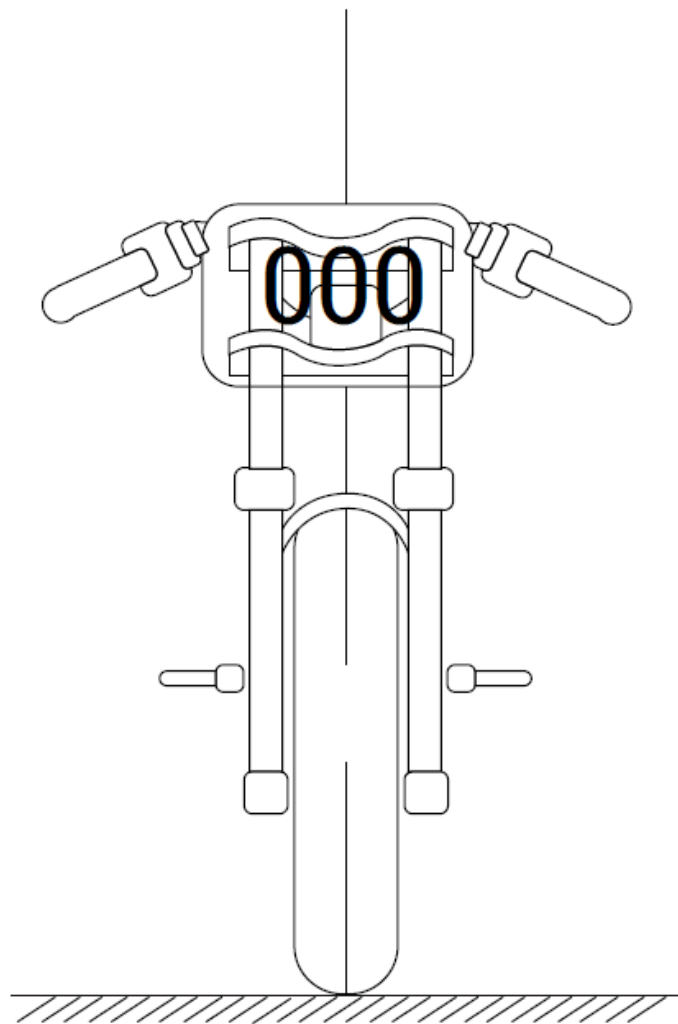
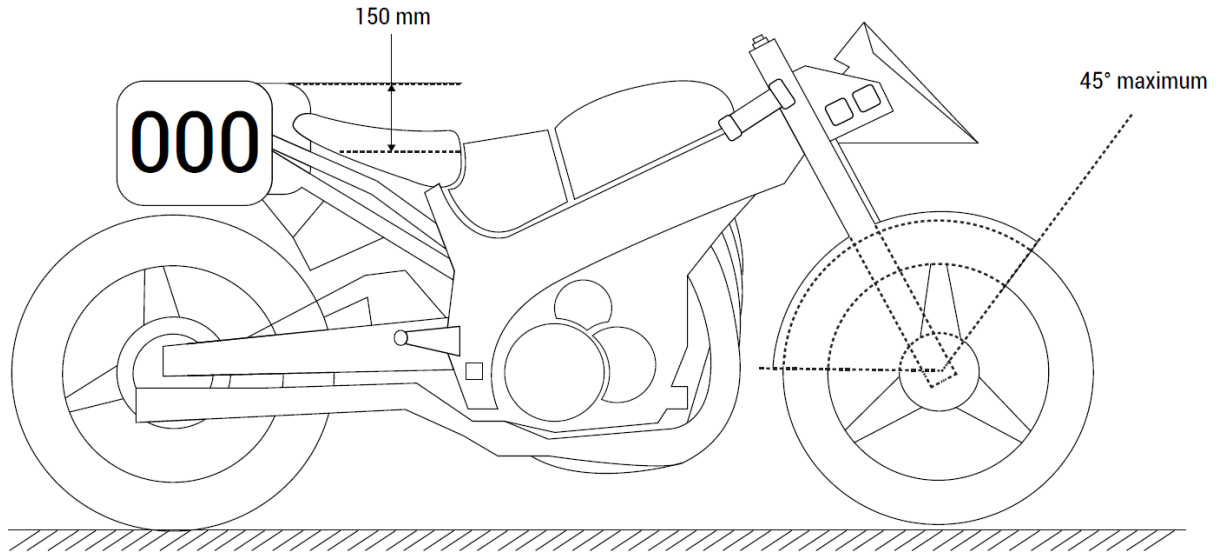
<b>TECHNICAL SCRUTINEERING FORM – (will be fulfilled by FIM/FMN on spot)</b>	
<b>Rider min. std. equipment</b>	Leathers (Art. 2.14.1/2) - EN1621-1:2012
	Boots (Art. 2.14.3/4) - Leather
	Gloves (Art. 2.14.3/4) - Leather
	Chest protector (Art. 2.14.5) - prEN1621-3 - Highly recommended
	Back protector (Art. 2.14.5) - EN1621-2, CB or FB Level 1 or 2
	Helmet (Art. 2.14.6/7) - FIM FRHPhe-01 + FIM sticker SN:
	Helmet (Art. 2.14.6/7) - allowed for Streamliners only: SNELL SA2015 or SA2020
<b>Motorcycle/Vehicle safety check</b>	Ballast (3 wheels, Cycle cars) (Art. 2.7.2) (Kg + location)
	Max. height of the back of the rider's seat: 150 mm, Non-/Partially streamlined vehicles (Art. 2.10.2)
	Fuel Cap (Art. 2.10.2)
	Minimum inclination angle – 20°(Art. 2.10.3)
	Rider protected from turbocharger (Art. 2.12.3)
	Tires Rating (Art. 2.10.4)
	Fuel supply (Art. 2.12.1); Engine cut-out (Art. 2.12.4)
	Self - closing throttle (Art. 2.12.5) Hand-, Foot controls (Art. 2.12.5)
	Functional steering damper (Art. 2.12.6)
	Rounded footrest end (Art. 2.12.7)
	At least two efficient/independent braking systems (Art. 2.12.8)
	Guard on primary/secondary transmission and countershaft (Art. 2.12.10)
	Exhaust pipe-end before vert. tangent of rear tyre (Art. 2.12.14)
	Coolant water or water + ethyl alcohol (Art. 2.13.5)
	Front fender (Art. 2.18.A/B)
	Non-streamlined vehicles (Art. 2.18.A)
	Partially Streamlined vehicles (Art. 2.18.B)
Streamliners (Art. 2.18.C)	
Closed breather systems (Art. 2.21.15)	

<b>Verified by (Technical Steward's name):</b>	
<b>Date &amp; Time</b>	
<b>Signature</b>	

# DIAGRAM A

NON STREAMLINED

See Art 2.15. & 2.20.

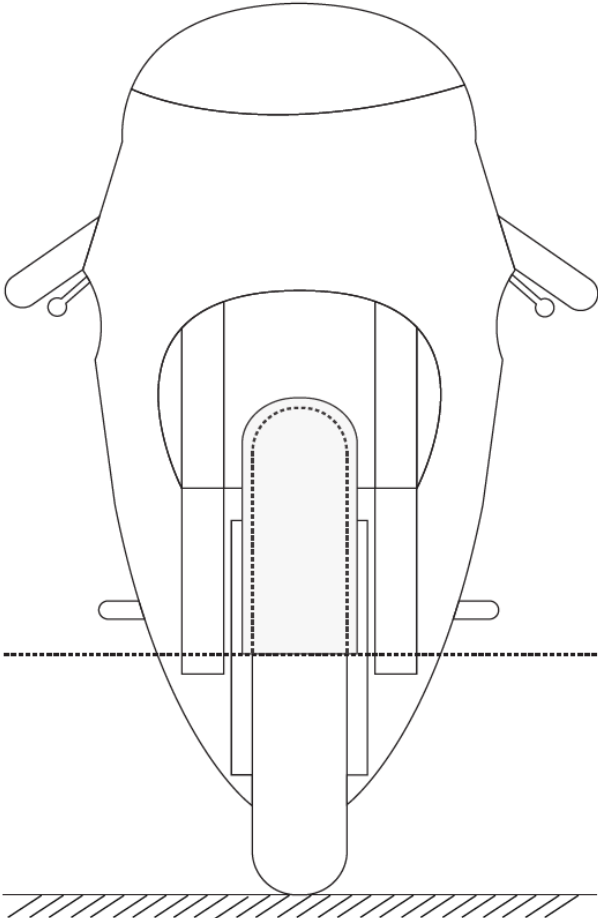
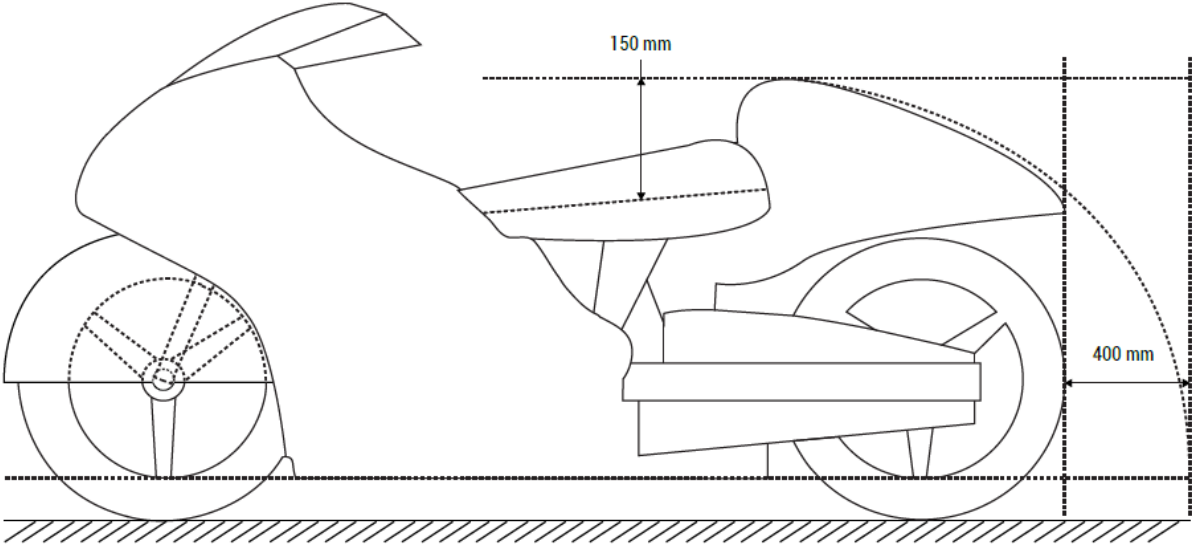




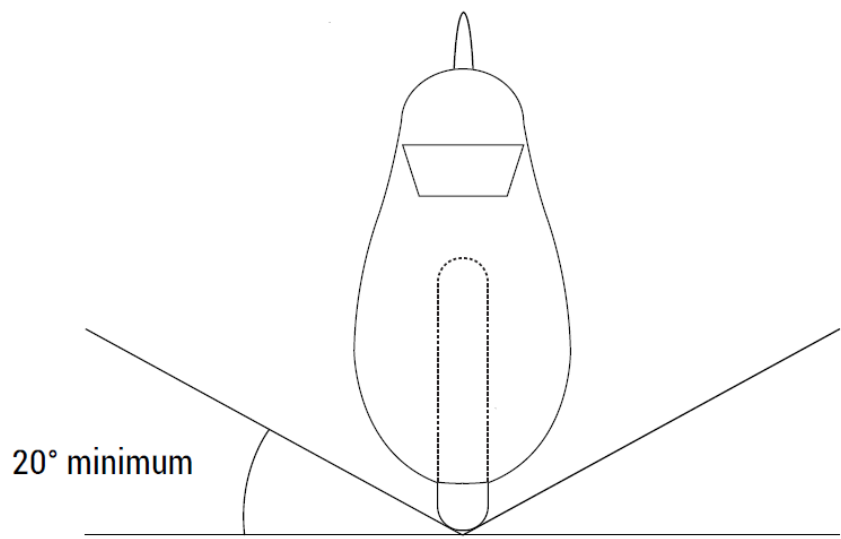
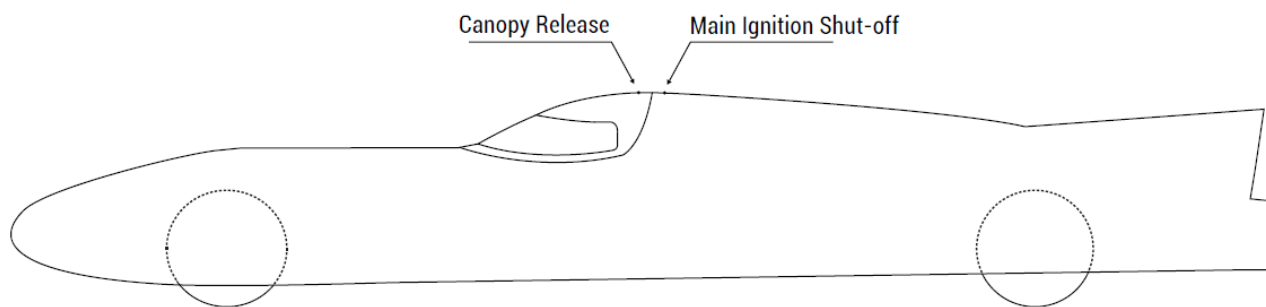
# DIAGRAM B

PARTIALLY STREAMLINED

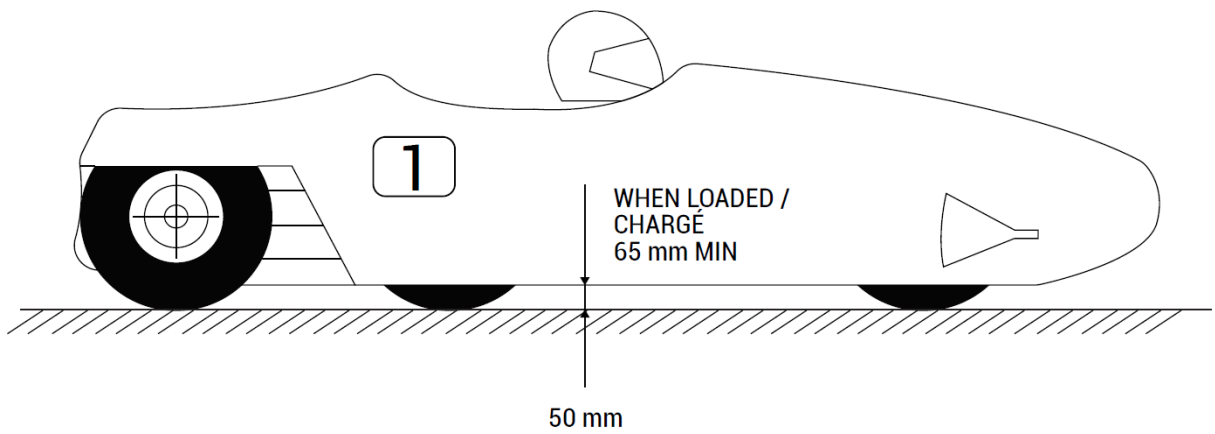
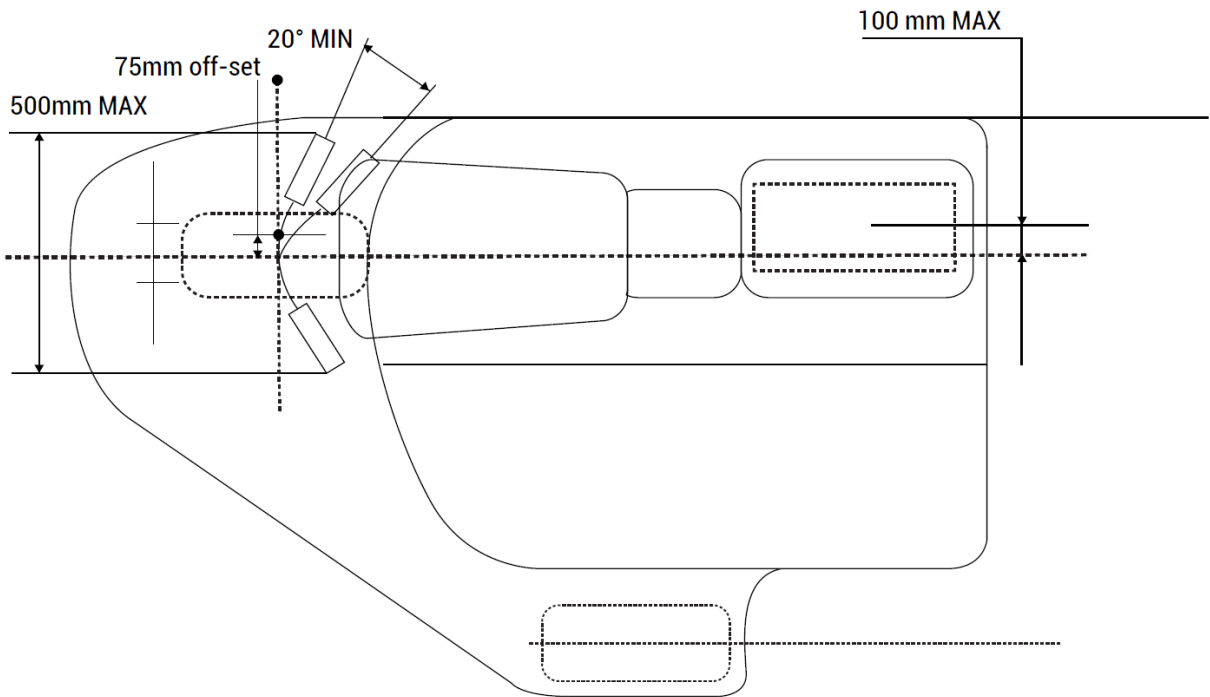
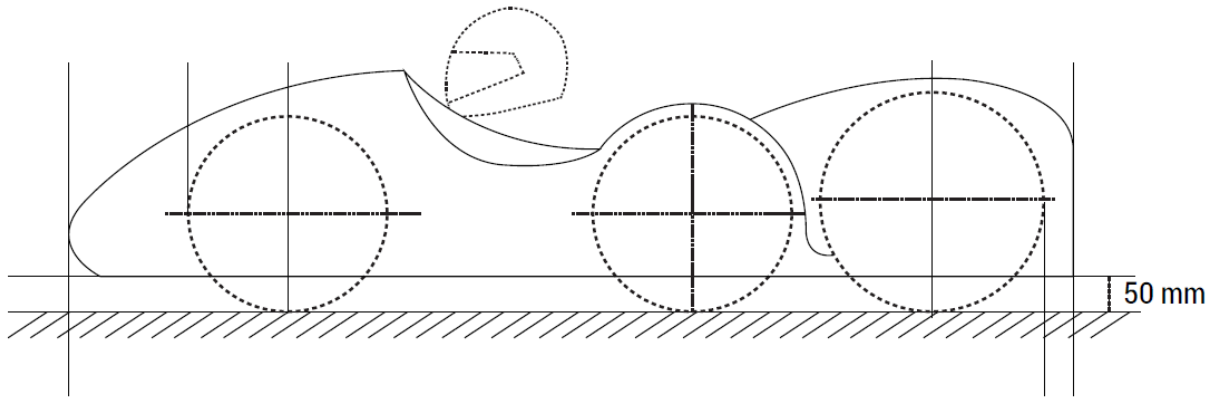
See Art 2.15.B.



# DIAGRAM C

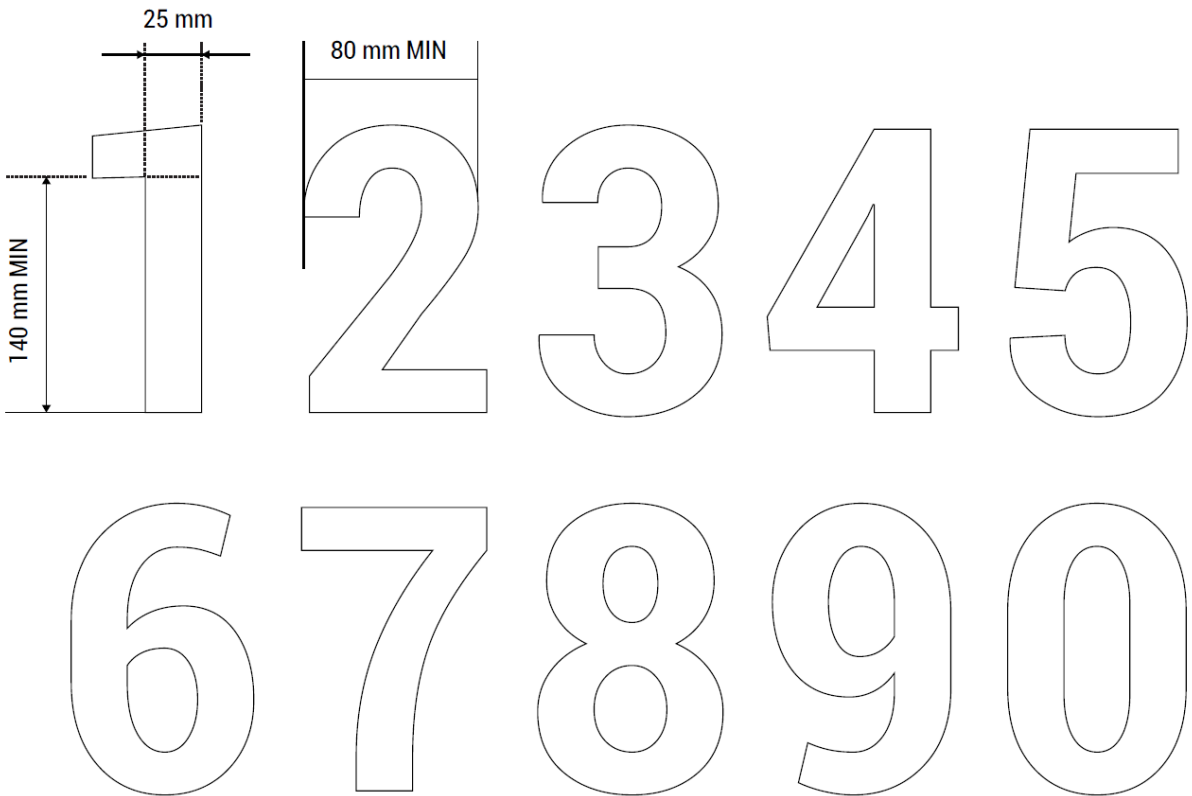
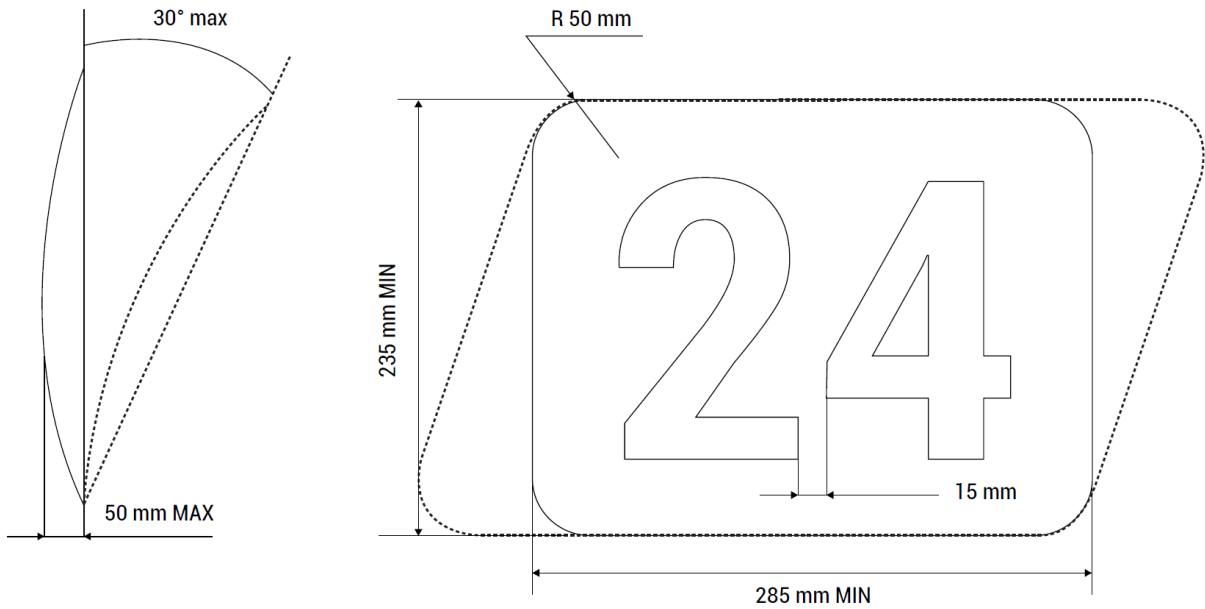


# DIAGRAM D



# DIAGRAM E

## NUMBERS



### **3. DISCIPLINARY AND ARBITRATION CODE**

The regulations will be defined by the “FIM DISCIPLINARY AND ARBITRATION CODE”.

Updated version available on <https://www.fim-moto.com/en/documents>

#### 4. **MEDICAL CODE**

The regulations will be defined by the “FIM MEDICAL CODE”.

Updated version available on <https://www.fim-moto.com/en/documents>

## 5. ANTI-DOPING CODE

The regulations will be defined by the “FIM ANTI-DOPING CODE”.

Updated version available on <https://www.fim-moto.com/en/documents>

## 6. ENVIRONMENTAL CODE

The regulations will be defined by the “FIM ENVIRONMENTAL CODE”.

Updated version available on <https://www.fim-moto.com/en/documents>



## 7. CODE OF ETHICS

The regulations will be defined by the “FIM CODE OF ETHICS”.

Updated version available on <https://www.fim-moto.com/en/documents>

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