



FÉDÉRATION INTERNATIONALE  
DE MOTOCYCLISME

# FIM JUNIORGP WORLD CHAMPIONSHIP REGULATIONS

# 2022

For the purposes of simplicity and convenience/utility  
these Regulations also include the  
**EUROPEAN MOT02™ CHAMPIONSHIP**  
**& HAWKERS EUROPEAN TALENT CUP REGULATIONS**

**finetwork**  
**JrGP™**  
FIM JuniorGP World Championship

# FIM JuniorGP World Championship Regulations



For the purposes of simplicity  
and convenience/utility these Regulations  
also include the:

**European Moto2™ Championship &  
Hawkers European Talent Cup Regulations**



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Technical

JuniorGP

Moto2 Eur

STK

ETC

Appendices

FOR JUNIORGP WORLD CHAMPIONSHIP  
FÉDÉRATION INTERNATIONALE DE MOTOCYCLISME (FIM)  
11, route Suisse  
CH - 1295 MIES  
SWITZERLAND  
Tel: +41-22 950 950 0  
[www.fim-moto.com](http://www.fim-moto.com)  
[victoria.corredoira@fim.ch](mailto:victoria.corredoira@fim.ch)  
[paul.duparc@fim.ch](mailto:paul.duparc@fim.ch)

FOR MOTO2™ EUROPEAN CHAMPIONSHIP  
& EUROPEAN TALENT CUP  
FIM EUROPE  
General Secretariat:  
Viale delle Arti 181  
Fiumicino (Rome)  
ITALY  
Tel: +39 06 45777645  
Legal Head Office:  
11, route Suisse  
CH - 1295 MIES  
SWITZERLAND  
Tel: +41-22-950 950 0  
[www.fim-europe.com](http://www.fim-europe.com)  
[office@fim-europe.com](mailto:office@fim-europe.com)

DORNA FIM Junior GP / Dorna Worldwide S.L  
C/ Príncipe de Vergara 183,  
28002 Madrid  
SPAIN  
Tel: 91 782 02 20  
[www.fimjuniorgp.com](http://www.fimjuniorgp.com)  
[info@fimjuniorgp.com](mailto:info@fimjuniorgp.com)

<b>YEAR 2022</b>		
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0	01.01.2022	<p><b><u>SPORTING REGULATIONS</u></b></p> <p>Art. 1.2.1; Art, 1.3.1; Art. 1.3.3, Art. 1.3.5; Art. 1.3.7; Art. 1.5.5; Art. 1.6.6; Art. 1.10; Art.1.11.1; Art 1.11.2; Art 1.11.5; Art. 1.15.1. iv) &amp; vi); Art. 1.15.4; Art. 1.19.1; Art. 1.19.2; Art. 1.22.2; Art. 1.25.1</p> <p><b><u>TECHNICAL REGULATIONS</u></b></p> <p><b><u>FIM JuniorGP</u></b></p> <p>Art. 2.3.2.2.1; Art. 2.3.2.2.3; Art. 2.3.3.1.1 Appendices 1, 2, 3 &amp; 4</p> <p><b><u>Moto2 Triumph EC Class</u></b></p> <p>Appendices 5, 6, 7, 8 &amp; 9</p> <p><b><u>Moto2 Honda EC Class</u></b></p> <p>Art. 3.14.1, Appendix 10</p> <p><b><u>STK Class</u></b></p> <p>Art. 4.6.7</p> <p><b><u>ETC</u></b></p> <p>Art. 5.6.3; Art. 5.6.6; Art. 5.6.7.15; Art. 5.6.8.1</p> <p><b><u>General Technical Appendices</u></b></p> <p>Appendix 11: Motorcycle frame Appendix 12: Transponder Installation Appendix 13: Fuel Specification Appendix 14: Riders' equipment (&amp; FIM Helmets standards) Art. 1; Art. 2; Art. 3 Appendix 15: Procedure for technical control</p> <p><b><u>DISCIPLINARY &amp; ARBITRATION CODE</u></b></p> <p>Art. 3.2.1; Art. 3.3.3.3; Art. 3.3.4.2; Art. 3.3.4.3; Art. 3.3.10; Art. 3.4.1; Art. 3.4.2; Art. 3.9.1</p>

Articles amended as from 1.1.2022 are in bold type  
Articles amended during the 2022 season are in bold and red type or ~~double strike through~~

YEAR 2022		
Version	Applicable as from	Modified paragraphs / Articles n°
1	14.03.2022	<u>SPORTING REGULATIONS</u> Art. 1.9.1; Art. 1.16.8; Art. 1.22.1 & Art. 1.22.2 <u>TECHNICAL REGULATIONS</u> <u>Moto2 Triumph EC Class</u> Appendices 8 <u>STK EC Class</u> Art. 4.6.8.17 d); Art. 4.6.10.6 h); Art. 4.6.14.10 <u>ETC</u> Art. 5.6.9.5 g)
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3		

Articles amended as from 1.1.2022 are in bold type  
 Articles amended during the 2022 season are in bold and red type or ~~double-strike-through~~

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## FIM JUNIORGP WORLD CHAMPIONSHIP REGULATIONS

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## GENERAL UNDERTAKINGS AND CONDITIONS

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

The FIM Europe European Talent Cup and the Moto2™ European Championship is run under the authority of FIM Europe.

In this respect, any references to the FIM Stewards refer also to the FIM Europe Stewards (hereinafter collectively referred to as the “FIM Stewards”) except when the context requires otherwise.

All riders, team personnel, officials, promoters/organisers and all the persons involved in any capacity whatsoever participating in the FIM JuniorGP World Championship, Moto2™ European Championship, European Talent Cup (ETC) (hereinafter collectively referred to as the “Championship”) 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. CIRCUIT STANDARDS
5. MEDICAL CODE
6. ANTIDOPING CODE
7. ENVIRONMENTAL CODE
8. CODE OF ETHICS

as supplemented and amended from time to time (hereinafter collectively referred to as the “Regulations”).

All the persons mentioned above may be penalised in accordance with the provisions of the Regulations.

Whilst these 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 machine 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 machine or present in any capacity whatsoever in the Paddock, Pits, Pit lane or Track, must wear an appropriate pass at all times during the Event.



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## ANTIDOPING CODE

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



## 1. SPORTING REGULATIONS

### 1.1 INTRODUCTION

#### 1.1.1

A series of motorcycle races counting toward the Championship for Riders and Constructors will be organised.

When applicable, Riders will also compete for Trophies.

#### 1.1.2

Official documents relating to FIM Moto3 Junior World Championship must conform to article 100.5 of the FIM Sporting Code.

#### 1.1.3

Official documents relating to Moto2 European Championship & European Talent Cup must conform to article 100.6 of the FIM Europe Sporting Code.

### 1.2 EVENTS

#### 1.2.1

The Event shall be deemed to commence at the scheduled time for **the FIM JuniorGP Official Testing Session** and finish after all the races at the expiry of the deadline for the lodging of a protest and the time, at which technical or sporting verifications have been concluded, whichever is the latest.

The race control must remain operative with all equipment in place until the end of the period provided for the lodging of a protest, and all officials and marshals must remain at the circuit available to the Race Direction and FIM Stewards during that period.

#### 1.2.2

Events must be staged on race circuits that have been homologated by the FIM for the Championship.

During the previous afternoon of the first official practices, the Safety Officer will carry out the final inspection to homologate the circuit.



### 1.2.3

Events must not include any other races except for Grand Prix races and support races approved by the FIM, FIM Europe and DORNA.

### 1.2.4

Any activity involving 4 wheeled racing vehicular use of the track during the event, including “demonstrations”, displays or the suchlike must receive prior approval from FIM, FIM Europe and Dorna.

### 1.2.5

Event Organisers (hereinafter “Organiser”) will be nominated by the FIM, FIM Europe and DORNA.

### 1.2.6

The Organiser is responsible for providing the facilities and personnel to ensure the smooth and efficient running of the event.

### 1.2.7

The organiser will arrange third party liability insurance according to article 110.1.2 of the FIM Sporting Code (for the FIM JuniorGP World Championship) and according to article 110.1 of the FIM Europe Sporting Code (for the Moto2 European Championship & European Talent Cup) including cover for all participants, teams, sponsors, service companies, officials, FIM/FIM Europe, DORNA, etc.

The coverage for each event will be at least, equivalent to the coverage requested by the laws of the country where the event is taking place.

The organiser will send a copy of such liability insurance to Dorna by e-mail, at least 15 days prior to its event.

The validity of the insurance will come into effect four (4) days before the first race and will terminate one day after the last race day.



### 1.2.8

At least 30 days prior to the Event, the Organisers of the event must submit the following information to the FIM, FIM Europe and DORNA:

- a) Confirmation of the name and address of the Organisers, including telephone and e-mail address.
- b) The date and place of the event.
- c) A detailed plan of the circuit, its direction, clockwise or anticlockwise, and length.
- d) The location at the circuit of the rider information centre and the official notice board.
- e) The name and address of the company providing the third party liability insurance cover and the number of the policy.
- f) Name and address of FMNR.
- g) The name of the Clerk of the Course and the name of the 3<sup>rd</sup> FIM Steward appointed by the FMNR (with appropriate FIM/FIM Europe official licence).
- h) The name, address and telephone number of the Chief Medical Officer (with appropriate FIM/FIM Europe official licence).
- i) The name, address and telephone number of the hospitals designated for the event.

N.B. The Organiser is not required to produce or publish any Supplementary Regulations for the event.

### 1.3 Paddock

The regulations establish the different timetables, paddock areas, and guidelines to follow.

- Timetable and paddock entrance and exit procedure
- Paddock areas
- Areas locations
- Promotional activities
- Behaviour guidelines
- Use of installations

### 1.3.1 Timetable and paddock entrance and exit procedure

Any motor vehicle that has been accredited and has been allocated inside the paddock by the Organization will not be able to move until the end of the Event. The Organization reserves the right to modify this rule if necessary.

#### **TRAILERS AND TRUCKS:**

The entrance procedure for trailers and trucks will be the following:

- It is highly recommended that team trailers/trucks and their drivers be ready in the FIM JuniorGP holding area at 9 AM on the paddock opening day. Otherwise, those who arrive later, might not have the chance to be parked in front of their garage, but rather next to the service area (as long as the Organization has foreseen a place for them).
- The team arrives at the Circuit gate and identify themselves.
- They wait for a person from the Organization to come and accreditate the vehicles for the Event. After that, the Organization will indicate to them their location in the paddock and the number of the garage allocated (if any).

The entrance and exit time to the paddock and/or garages for working vehicles which have already been accredited for the Event will be the following:

- **“Events with FIM JuniorGP Official Testing Sessions” on Wed & Thurs:**  
On Tuesday from 9AM to 8PM\*.  
On Wednesday from 8AM to 8PM\*.
- **“Events with FIM JuniorGP Official Testing Sessions” on Thurs & Fri:**  
On Wednesday from 9AM to 8PM\*.  
On Thursday and Friday from 8AM to 8PM\*.
- **“Events with FIM JuniorGP Official Testing Sessions” only on Fri:**  
On Thursday from 9AM to 8PM\*.  
On Friday from 8AM to 8PM\*.

Those teams with a trailer or truck parked in the garage area will not be allowed to park any van in this area.

## VANS:

The entrance procedure for vans will be the following:

- It is highly recommended that team vans and their drivers be ready in the FIM JuniorGP holding area at 9 AM on the paddock opening day. Otherwise, those who arrive later, might not have the chance to be parked in front of their garage, but rather next to the service area (as long as the Organization has foreseen a place for them).
- The team arrives at the Circuit gate and identify themselves.
- They wait for a person from the Organization to come and accreditate the vehicles for the Event. After that, the Organization will indicate to them their location in the paddock and the number of the garage allocated (if any).

The vans that have been accredited with a Garage Area Pass, a Paddock Area Pass, or a Living Area Pass will not be able to move until the end of the Event. The Organization reserves the right to modify this rule if necessary.

The entrance and exit time to the paddock and/or garages for vans allocated and accredited with the Event Identifier Pass vans will be the following:

- Events with “FIM JuniorGP Official Testing Sessions” on Wed & Thurs:  
On Tuesday from 9AM to 8PM\*.  
On Wednesday from 8AM to 8PM\*  
On Saturday and Sunday from 8AM to 10AM and no vehicle parked inside the paddock shall leave it (on a permanent basis) until the end of the last race scheduled on Sunday. After the end of the races held on Sunday, all vehicles can freely move.
- Events with “FIM JuniorGP Official Testing Sessions” on Thurs & Fri:  
On Wednesday from 9AM to 8PM\*.  
On Thursday and Friday from 8AM to 8PM\*.  
On Saturday from 8AM to 10AM and from the end of the practices to 8PM. While the bikes are practicing, it is not allowed to unpark the vehicles in the paddock. On Sunday from 8AM to 10AM.  
On Sundays no vehicle parked inside the paddock shall leave it (on a permanent basis) until the end of the last race scheduled on Sunday. After the end of the at scheduled race, all vehicles can freely move.



- **Events with “FIM JuniorGP Official Testing Sessions” only on Fri:**  
On Thursday from 9AM to 8PM\*.  
On Friday from 8AM to 8PM\*.  
On Saturday from 8AM to 10AM and from the end of the practices to 8PM. While the bikes are practicing, it is not allowed to unpark the vehicles in the paddock. On Sunday from 8AM to 10AM.  
On Sundays no vehicle parked inside the paddock shall leave it (on a permanent basis) until the end of the last race scheduled on Sunday. After the end of the last scheduled race, all vehicles can freely move.

After they have been accredited with the Event Identifier Pass, they can freely move within the scheduled entrance and exit time.

Those teams with one or more vans that have not been parked in the garage area, they will be parked behind the line of hospitalities and will not be able to move until the end of the Event. In the event that any of these vans need to leave the paddock any day before the end of the Event, they will not be able to re-enter to park inside the paddock.

#### **CAMPERS AND MOTORHOMES:**

The entrance procedure will be the following:

- The team arrives at the Circuit gate and identify themselves.
- They wait for a person from the Organization to come and accreditate the vehicles for the Event. After that, the Organization will indicate to them their location in the paddock within the limits of the living area.

The entrance and exit time to the paddock for accredited campers and motorhomes will be the following:

- **Events with “FIM JuniorGP Official Testing Sessions” on Wed & Thurs:**  
On Tuesday from 9AM to 8PM\*.  
On Wednesday from 8AM to 8PM\*
- **Events with “FIM JuniorGP Official Testing Sessions” on Thurs & Fri:**  
On Wednesday from 9AM to 8PM\*.  
On Thursday and Friday from 8AM to 8PM\*.  
On Saturday from 8AM to 10AM and from the end of the practices to 8PM.



- **Events with “FIM JuniorGP Official Testing Sessions” on Fri:**  
On Thursday from 9AM to 8PM\*.  
On Friday from 8AM to 8PM\*.  
On Saturday from 8AM to 10AM and from the end of the practices to 8PM.

Any camper or motorhome parked within the limits of the living area must remain parked at all times. Once they have been allocated, it is strictly forbidden to start or un park any vehicle until the end of the last race scheduled on Sunday.

**FOR ALL VEHICLES:**

\*On Tuesday, Wednesday, Thursday and Friday, between 13:30 and 15:00, those vehicles **entering** into the paddock for the first time during the Event will not be accredited. Therefore they will not be allowed to access.

On Sundays no vehicle parked inside the paddock shall leave it (on a permanent basis) until the end of the last race scheduled on Sunday.

Dismantling panels, carpets and other furnishing of the box is strictly prohibited until the end of the event.

To any team violating this entrance and exit time, the Organization has the right to remove its vehicle accreditation and forbid access to the paddock for the rest of the season.

The Circuit staff may require holding a Personal Credential between 18:00 and 8:00 of the next day.

Entering the paddock by scooter is allowed until 23:00 as long as the rider and scooter bike are properly accredited.

Image recording inside the Paddock area is subject to Dorna’s prior authorisation.

Detailed time table for “FIM JuniorGP Official Testing Sessions” and events may be consulted on the Championship web site [www.fimjuniorjp.com](http://www.fimjuniorjp.com).

### 1.3.2 Paddock Areas

In order to improve its functionality, the paddock will be divided into the following areas:

1. Garages area
2. Working area (teams without a garage)
3. Hospitality units and caterers' area
4. Living area
5. Service area
6. Support race(s) Area

The distribution will be done by the Organisers, and everyone must follow the instructions for their location.

The location assigned to each team on the different areas of the paddock will admit no changes.

The Organisers reserve the right to make any changes if it is considered necessary.

### 1.3.3 Areas locations

Teams must always follow the instructions of those in charge of directing the vehicles to the parking areas as well as respect the schedule applicable in the paddock.

#### 1. Garages area

The Championship Organisation is in charge of the garage allocation, as the availability and capacity of the garages vary from one Circuit to another. **As a rule, each team will be allocated a pit box.**

Availability of garages may be consulted on the Championship web site [www.fimjuniorgp.com](http://www.fimjuniorgp.com) from the Tuesday prior to the race.

If you do not appear on the garage list published on the Tuesday before the race, this means you will not have a garage. Teams are **then** responsible for providing themselves with a tent in order to work on their bike(s).

**Riders / teams that do NOT intend to participate in Thursday Official Testing Sessions (only if it is scheduled) are required to indicate this in this section before 12.00 of the Friday prior to race week.**

The payment of garage hiring and deposit by teams must be made at the Circuit office.

It is strictly prohibited to occupy a garage which has not been previously assigned by the Organiser.

Work hours at the working areas from Thursday prior to the Event until Sunday are from 8:00 to 23:00.

Between **20:00-8:00** starting engines is forbidden.

Engines are not to be started inside the garages at any time.

Working vehicles parked in the paddock must be on the main line of the street at all times. It is strictly prohibited to move any working vehicle parked inside the paddock, as well as to dismantle any hospitality before the last race ends.

**The trailers with slider are not permitted on the main line of the garages, unless express approval by the Organization.**

## **2. Working area (teams without a garage)**

This working area is for those teams that do not have a garage.

Those teams without garage must have the necessary equipment to work in the paddock.

Work hours at the working areas from Thursday prior to the Event until Sunday of the Event are from 8:00 to 23:00.

The running of engines or those works likely to disturb the resting of the participants are forbidden after **20:00**.

## **3. Hospitality units and caterer's area**

The location of hospitality units and catering tents must be planned. Therefore teams that have foreseen the installation of these structures must inform this in writing within the rider's on line entry form 15 days before the Event. Teams accredited for the whole season wishing to install a hospitality unit or catering tent in all the races must notify this, along with the details of these structures, in writing within the rider's on line entry form one month before the first race; otherwise no space will be reserved.

Four teams is the maximum amount permitted to use each hospitality unit or catering tent. The use of a hospitality unit or catering tent inside the paddock by more than four teams is subject to a pre-arranged agreement with the Organisers.

For reasons of space the Organisers reserve the right to admit or limit the number of square meters in the paddock available for hospitality units and catering tents.

All hospitality unit and catering tent are obliged to leave the paddock on Sunday, after the end of the Event.

#### **4. Living area**

At each Event, the Organisation will reserve an area solely for campers and motorhomes. This living area will be as large as the Circuit facilities permit and will be as near as possible to the paddock, though not necessarily inside it. The distribution will be under the Organisers' indications.

This area is for the use of teams and riders. The Organisation reserves the right to admit the users of this area.

The running of engines or those works likely to disturb the resting of the participants are forbidden.

#### **5. Service area**

At each Event, the organisation will reserve a Service area for the companies holding a license for the current year.

#### **6. Support Race(s) Area**

In those Events in which support race is to take place, the Organiser shall reserve an area devoted to their infrastructure.

### **1.3.4 Promotional activities**

Every advertising, promotional or public relations activity inside the Organisation area or around the Circuit, service road, paddock, garages, etc. must be previously authorised by Dorna.

### 1.3.5 Behaviour guidelines

For a better cohabitation inside the paddock and to improve its image, the following actions are strictly forbidden:

- Driving motorcycles in a reckless manner inside the paddock. “Reckless” is understood as not having both tyres on the ground, inadequate speed for pedestrian safety and more passengers than permitted by law.
- **Driving on the track with any motor vehicle outside Official Testing Sessions and race times. Those riders and team members who do not comply with this rule may be sanctioned according to the criteria of the Organization.**
- It is strictly forbidden to park trailers in general within the paddock. Trailers must be parked in the parking lots outside the paddock.
- Walking on the paddock stripped to the waist.
- Cooking or eating in the garage or the paddock outside the designated areas.
- Smoking in the garages and the pit lane. Should this prohibition be breached, the Organiser of the Event may, at its own discretion, decide to withdraw the accreditation and to expel the infractor from the installations.
- Pets are not allowed in the paddock. Should any team break this rule, it may be subject by an expulsion of the paddock.
- Sleeping within the garage.
- Exchange of Personal or Vehicle Credentials.
- Installation of tents within the paddock.
- Installation of swimming pools in the living area.
- Installation of BBQ’s or any other kind of open-air cooking devices.

### 1.3.6 Use of installations

- It is hereby expressly forbidden to paint, drill, dismantle or make any misuse of the installations of the Circuit (paddock, garages, pit-lane, signalling zone, etc...). Any damage caused to the installations will be the sole liability of the participant.



- Once the race is finished, it is the sole responsibility of the teams to withdraw any and all used tyres and fuel containers from the installations of the Circuit.

### **1.3.7 Joint event with other Championship**

These rules above may be subject to change in those events held in connection with other championships.

Detailed time table for these events may be consulted on the Championship web site [www.fimjuniorgp.com](http://www.fimjuniorgp.com).

## **1.4 OFFICIALS**

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

### **1.4.1 Permanent Officials**

All permanent officials shall be appointed for the Championship by the relevant Commission.

The following officials will be appointed to perform supervisory and executive roles. Except in cases of illness or Force Majeure the officials will be expected to be present at each event.

#### **Race Director**

Responsible for ensuring proper observance of the Regulations and efficient running of the practice and races.

The Race Director is also responsible for all communications between the Event Management Committee and the FIM Stewards.

The Clerk of the Course shall work in permanent consultation with the Race Director.

The Race Director shall have overriding authority in the following matters and the Clerk of the Course may give orders in respect of them only with his express agreement:

- a) The control of practice and the race, adherence to the timetable and, if he deems it necessary, the making of any proposal to the Race Direction to modify the timetable in accordance with the Sporting Regulations.



- b) The stopping of practice or the race in accordance with the Sporting Regulations if he deems it unsafe to continue and ensuring that the correct restart procedure is carried out.
- c) The starting procedure.
- d) The use of medical cars/fast interventions vehicles.

### **Technical Director**

Responsible for ensuring that technical Regulations are correctly enforced and supervising scrutineering and protests of a technical nature. The Technical Director has the power to disallow the use of any parts based on safety concerns at his/her sole judgement and discretion. The Technical Director may from time to time issue and update general design guidelines which are considered as part of the technical regulations.

### **Medical Director**

Responsible for liaison with the Chief Medical Officer who is appointed by the FIM to ensure compliance with the Medical Code.

### **Safety Officer**

Responsible for the supervision of all aspects of safety.

### **Starter**

Responsible for the start procedure of the race.

## **1.4.2 Individual Event officials**

All individual Event Officials shall be appointed for each event by the FMNR/Organiser and shall be approved by the FIM/FIM Europe.

They are:

### **i) Clerk of the Course**

Responsible for:

- a) Ensuring that the circuit 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.



- b) Ensuring that all officials and services are in place.

The stationing of all track personnel and equipment (i.e. marshals, fire-fighting services, Moto-taxi, recovery and intervention vehicles, flags, etc.) alongside the Circuit no later than 30 minutes prior to the beginning of all practice sessions and warm-ups.

Once the morning medical Inspection is finished, medical personnel should stand 5 meters behind the track marshals or leave. Only sportive personnel should stay at the edge of the track for the “sporting” inspection.

The Race Director, the Safety Officer, the Dorna Representative, the Medical Director, the FIM Stewards and the Clerk of the Course will make the final inspection of the Circuit to ensure this regulation is complied with, 30 minutes prior to the beginning of the day’s first practice sessions and/or warm up.

During the final inspection lap, the yellow flag must be waved at each flag marshal post together with the display of other flags and equipment requested by the Safety Officer.

- c) Taking decisions to ensure the smooth and efficient running of the event.
- d) Ensuring that the event is run within the Regulations.
- e) Notification of protests to the Race Direction.
- f) Immediate approval and signature with time of provisional results (practices, warm-ups, starting grids and races) and presentation of reports to the Event Management Committee.

**ii) Secretaries**

Responsible for:

- a) During the event effecting communications between the various officials.
- b) Providing secretarial support for the Event Management Committee, the Race Direction and the FIM Stewards.



### **iii) Other officials**

Marshals, Technical Scrutineers, Security Personnel, Medical personnel etc., as required for the efficient running of the event.

All communications between the individual Event Officials must be made via the relevant Permanent Officials.

#### **1.4.3 Race Direction**

The Race Direction shall be appointed for the Championship by the relevant Commission.

#### **1.4.4 FIM Stewards**

The FIM Stewards shall be appointed for each event by the FIM and approved by the relevant Commission.

### **1.5 EVENT MANAGEMENT**

#### **1.5.1**

The management of the event will be carried out by the Event Management Committee which will comprise the following delegates:

- The Race Director - who will chair the meetings.
- The Technical Director,
- The DORNA representative,
- The Safety Officer,
- The FIM Chief Steward,
- The Clerk of the Course,
- The Medical Director

#### **1.5.2**

At any time the duties of the members of the Event Management Committee are:

- a) To ensure the smooth and efficient running of the event.
- b) To make recommendations to the Race Direction concerning any matter that is in contradiction to the Regulations.
- c) To report to the Race Direction any infringements of the Regulations.



### 1.5.3

The Event Management Committee will meet at any time required during the event, but at least:

- a) Prior to the first practice session.
- b) At the end of each practice day.
- c) At the end of the event.

### 1.5.4

The quorum for a meeting of the Event Management Committee is three persons.

### 1.5.5

**Every member has one vote.** Decisions are based on a simple majority. In the case of a tie, then the Race Director will exercise a casting vote.

### 1.5.6

The Race Director may also invite the participation of Officials or other persons to assist in the Event Management Committee meetings. However, the invited officials or other persons will have no right of vote.

### 1.5.7

The duties of the Event Management Committee are:

- a) To receive reports from the various Officials concerning scrutineering, practice and races.
- b) To make recommendations to the organiser to improve the smooth and efficient running of the event.

## 1.6 RACE DIRECTION

### 1.6.1

The Race Direction will comprise the following persons:

- The Race Director
- The FIM Representative (Safety Officer)
- The DORNA Representative

These persons can perform other functions during the event.

## 1.6.2

The quorum for a meeting of the Race Direction is two persons.

## 1.6.3

Each member has one vote. Decisions are based on a simple majority.

## 1.6.4

The Race Direction will meet at any time required during the event.

## 1.6.5

The duties of the Race Direction are:

- a) To take decisions as provided in the Regulations.
- b) To oversee operational matters to ensure the safe, efficient, and timely running of the event according to the Championship Regulations.
- c) To make changes in the conduct and/or format of a race and/or a practice session 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 Race Direction may issue pre-race instructions or clarifications and in specific cases even create pre-race regulations (e.g. to take into account the local conditions at a particular circuit). 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.
- 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. No protest may be lodged for matters pertaining to the technical regulations.

## 1.6.6

**All decisions of the Race Direction must be communicated in writing to all affected parties. Decisions of the Race Direction taken during track activities (practice and races) may be communicated on monitors. Such communications on public screens are considered valid notification.**



## **1.7 FIM STEWARDS**

### **1.7.1**

There will be a panel of three FIM Stewards (with FIM/FIM Europe Sporting Steward licence) supervised by the Chief Steward who will chair the meetings.

### **1.7.2**

The Chief Steward and the other Stewards are responsible for enforcing the Regulations.

### **1.7.3**

The quorum for a meeting of the FIM Stewards is two persons.

### **1.7.4**

If the Chief Steward is indisposed during the Event then the second FIM Steward will fill the vacancy.

### **1.7.5**

Each member has one vote. Decisions are based on a simple majority. In the case of a tie, the Chief Steward will exercise a casting vote.

### **1.7.6**

The FIM Stewards have no executive role in the running of the events except for the adjudication of appeals or if requested other wise by the Race Direction.

### **1.7.7**

The FIM Stewards will meet at any time required during the event.

### **1.7.8**

The FIM Stewards are responsible for:

- a) Ensuring that the event is conducted according to the Regulations and reporting any infringement to the Race Direction.
- b) Adjudicating on any appeal against the decisions of the Race Direction.

## 1.7.9

All decisions of the FIM Stewards must be communicated in writing to the Race Direction and all affected parties.

## 1.8 CALENDAR

### 1.8.1

The provisional calendar of races counting for the Championship will be, in principle, published by no later than 15<sup>th</sup> December of the preceding year.

### 1.8.2

The relevant Commission reserves the right to propose the inclusion, substitution or cancelation of events of the provisional calendar.

### 1.8.3

The date of an event may be rescheduled due to force majeure, in consultation with FIM, Dorna and Organiser, under the powers of Race Direction detailed in Art. 1.6.5. c).

## 1.9 CLASSES

### 1.9.1

Classes will be for the following categories:

For the FIM ~~Moto3™~~ **JuniorGP** World Championship:

- ~~Moto3™~~ **JuniorGP** 250cc, 4 stroke, single cylinder

For the Moto2™ European Championship:

- Moto2™ Official engine 600cc, 4 stroke, 4 cylinder
- ~~SuperStock 600~~ over 400cc up to 600cc, 4 stroke, 4 cylinder  
over 500cc up to 675cc, 4 stroke, 3 cylinder  
over 600cc up to 750cc, 4 stroke, 2 cylinder

For the European Talent Cup: 250cc, 4 stroke, single cylinder



## 1.9.2

Technical Regulations governing the three classes are provided in the Championship Technical Rules.

## 1.10 ELIGIBLE COMPETITORS

For the FIM JuniorGP World Championship riders must be in possession of an annual “FIM CCR Junior World Championship Licence” issued by an FMN.

When a JuniorGP WC Class round is held during a MotoGP (e.g. Misano round) and without prior “FIM JuniorGP Official Testing Sessions”, then the rider may be in possession of a “one event” “FIM CCR Junior World Championship Licence” issued by an FMN.

For the Moto2 European Championship and the European Talent Cup riders must be in possession of an annual “FIM International Meetings Licence” issued by an FMN.

The constructors must be in possession of the appropriate “FIM Manufacturer Licence”.

### 1.10.1 Minimum age

Licences for riders are issued only when the minimum age has been attained as below:

<b>JuniorGP World Championship</b>	<b>15 years old</b>
<b>Moto2™ European Championship</b>	<b>15 years old</b>
<b>European Talent Cup</b>	<b>13 years old</b>

The limit for the minimum age starts on the date of the rider’s birthday.

**NB: For 2023, Licences for riders are issued only when the minimum age has been attained as below:**

<b>JuniorGP World Championship</b>	<b>16 years old</b>
<b>Moto2™ European Championship</b>	<b>16 years old</b>
<b>European Talent Cup</b>	<b>14 years old</b>

The limit for the minimum age starts on the date of the rider’s birthday.

## 1.10.2 Maximum age

For the FIM JuniorGP class, the maximum age is 24 years old at the 1<sup>st</sup> of January of the corresponding Championship year.

**NB: For 2023, for the FIM JuniorGP, the maximum age is 25 years old at the 1<sup>st</sup> of January of the corresponding Championship year.**

For Moto2 European Championship, the limit for the maximum age finishes at the end of the year in which the rider reaches the age of 50.

For the European Talent Cup, the maximum age is 18 years old at the 1<sup>st</sup> of January of the corresponding Championship year.

**NB: For 2023, for the European Talent Cup, the maximum age is 19 years old at the 1<sup>st</sup> of January of the corresponding Championship year.**

## 1.11 ENTRIES

### 1.11.1

The registration form and the entry fee are posted on the website [www.fimjuniorgp.com](http://www.fimjuniorgp.com).

Riders will not take part in more than one class on the same event.

Failing to participate in an event must be communicated to [entry@fimjuniorgp.com](mailto:entry@fimjuniorgp.com) until the Friday before the event takes place. The communication must be written and sent through e-mail. Failing to communicate this circumstance will be penalised.

FIM, FIM Europe and Dorna Worldwide, S.L.U (herinafter DWW) reserve the right to not admit, or dismiss any inscription.

When the name of a riders appears in the provisional list, is only for informative purposes telling that the riders has past the first step in order to wait for the definitive admittance. The definitive admittance only happens when all conditions have been met, the particulars for the rider and the generals for the championship, and such definitive admittance has been officially confirmed. Therefore, FIM, FIM Europe and DWW will never be responsible for the rider's own acts or assumed by him/her when informed of his provisional admittance, in case that finally his/her inscription is dismissed or not admitted.

## 1.11.2 Motorcycles

A rider may practice on one motorcycle providing that this motorcycle has been scrutinised in his name.

The maximum number of motorcycles allowed is:

- In JuniorGP & Moto2 EC:  
For practices is 36  
For races is 32
- in ETC:  
For Practices is 34  
For races is 30

Some events may have limited number of entries for the sporting program needs.

## 1.11.3 Groups' selections

In case the event registration requests exceed the maximum number of participants allowed in each class (as per describe in Art. 1.11.), the organisers may divide the entries in two groups.

In that case they will be made up as follows:

- For the first event of the season, the groups will be made up by drawing, except for the riders classified in last season's final results. Those ones will be distributed in alternate groups, A and B.
- For the second event of the season and onward, the groups will be made up by drawing, except for the riders who are in the Championship's provisional standings. Those ones will be distributed in alternate groups, A and B.
- The groups should have the same number of riders and must not exceed the maximum number of motorcycles as stated in Art. 1.11.2.

## 1.11.4 Public Pronouncements by Teams and Riders

- a) Teams and Riders must avoid any public declaration or press release which could damage or negatively affect the Championship. Accordingly, it is an obligation for all Riders, Teams and Teams' directors and/or personnel and/or representative thereof, to refrain from releasing any public pronouncement which may irresponsibly harm the lawful interests of the Championship Officials or which may be contrary to the integrity of Championship or the sport.

- b) Public pronouncements which harm irresponsibly the lawful interest of or which are contrary to the integrity of Championship or the sport shall include, but not be limited to:
- Public statements or comments to the media that irresponsibly attack, disparage, disrepute or damage the Championship Officials.
  - Public comments that members and Riders of the Team know, or should reasonably know, will irresponsibly harm the reputation, image or best interests of the sport and/or any of the Championship Officials are expressly covered by this regulation.
  - It is understood that responsible expressions of legitimate disagreement with the Championship Officials and/or Championship policies are not prohibited.

#### **1.11.5 Briefing**

**Two briefings will be organized:**

- a) **A compulsory briefing will be held for all Riders and Team Managers who will be participating for the first time in the current Championship on the day preceding the day scheduled for the first official practice session and the hour set on the official timetable of the event.**

**Failure to attend the briefing in full may result in a penalty.**

**A waiver can be granted to a rider by the Race Direction.**

- b) A compulsory briefing will be held for all the riders who will be participating for the first time in the current Championship on the day preceding the day scheduled for the first official practice session and the hour set on the official timetable of the event.

Failure to attend the briefing in full may result in a penalty.

A waiver can be granted to a rider by the Race Direction.

#### **1.11.6**

A rider shall be deemed to have taken part in the event when he participates in, at least, one practice session.

#### **1.11.7**

A rider shall be deemed to have started a race when he participates in, at least, the first lap of the race.

## **1.12 STARTING NUMBERS**

The number one (1) is reserved to first place qualified rider of the previous year.

Only the numbers between 1 and 99 will be allowed. Each rider accepted in the Championship will be allocated a specific starting number which will be valid for the whole Championship.

## **1.13 SCHEDULE**

### **1.13.1**

The Event schedule will be published before each event.

The schedule including the date of the event can only be varied as follows:

- Prior to the event by Dorna.
- During the event by the Race Direction.

### **1.13.2**

The relevant Commission reserves the right to modify the number of races per event for each class.

### **1.13.3**

The schedule may include an allotted time for riders and teams to make familiarisation laps by non-motorised vehicle or on foot, scooters are forbidden.

All traffic at this time must be in the circuit direction.

Violation of this rule may result in a penalty.

## **1.14 TECHNICAL CONTROL - MEDICAL CONTROL - DOPING CONTROL**

### **1.14.1**

All motorcycles should be checked on safety aspects by the Technical Director and Scrutineers, according to the published schedule, prior to first participation in practice.

Teams may present only one motorcycle per rider for Technical control.

Unless a waiver is granted by the Race Direction, the riders who do not comply with the schedule for technical or medical controls will not be allowed to take part in the event.

### 1.14.2

The procedure for Technical Controls is described in the Technical Regulations Appendix 14.

The procedure for Medical Control is described in the FIM Medical Code available at: <http://www.fim-moto.com/en/library/>.

### 1.14.3

All articles regarding anti-doping procedures are mentioned in the FIM Anti-Doping Code available at: <http://www.fim-moto.com/en/library/>.

## 1.15 PRACTICES AND TESTING RESTRICTIONS

### 1.15.1 Practice Sessions (including Warm-up)

- i) Riders will commence practice from the pit lane when the green light is displayed at the exit of the pit lane.
- ii) The duration of practice will commence from the illumination of the green light. A count-down will be shown on the official Timekeeping monitors to indicate the minutes of practice remaining.
- iii) The end of practice will be indicated by the waving of a chequered flag at which time the pit exit will be closed. A rider's time will continue to be recorded until he passes the finish line after the allotted time has elapsed. After the chequered flag, riders complete one additional lap prior to entering the pits.
- iv) If practice is interrupted due to an incident or any other reason, then a red flag will be waved at the start line and at all marshals posts. All riders must return slowly to the pit lane.

**When** practice is restarted, the time remaining will be that shown on the monitors of the official timekeepers at the moment the red flags were waved.



- v) After practice has started, it is not permitted for any person to alter the condition of the racing surface of the circuit.

This includes track Marshals and other Officials, who cannot clean the track surface without prior instructions and/or authorisation from the Race Director and/or the Safety Officer.

- vi) Private practices in the same track where the event takes place are forbidden, from Monday previous to the event for all riders who are registered for this event.

In case of infraction, the penalty will entail the cancellation of the entry of the rider to that event.

This prohibition does not apply for the last event of the season, only if a MotoGP round has been held the week before the final round of the Championship.

From the 1<sup>st</sup> of January of the Championship year, practice days with a bike of the same category as the one used by the rider in the race, in the same circuits of the Championship before the events take place, are limited to a maximum total of:

- 14 days for Moto3™ Junior
- 13 days for Moto2™ & ETC.

Shall riders participate in the **FIM JuniorGP Official Testing Sessions** on Thursdays previous to Championships rounds, these days will count as practice days.

Riders must inform Dorna of their practice sessions' days in the member area of the Championship website, within 72 hours after the completion of each practice sessions' day: <http://www.fimjuniorgp.com/en>.

Failure to notify Dorna of practice sessions' days or exceeding the maximum number of practice sessions' days permitted will be sanctioned by Race Direction.

Taking part in Moto3™ and Moto2™ events of FIM World Championship Grand Prix, except when Championships are held during the same event (e.g. Misano round)\*, in FIM World Superbike, Supersport, Supersport 300 and European Superstock Championships, in Spanish Championship, in FIM Endurance World Championship & World Cup,



in FIM Red Bull MotoGP™ Rookies Cup and their tests will not be considered as tests.

A rider competing in the Championship, at a MotoGP™ event, is not permitted to participate in the Moto3 or Moto2 classes of the FIM World Championship Grand Prix, practices or races at the same event”.

### 1.15.2 Duration of practices

Two separate qualifying sessions will be required; these sessions will have a minimum duration of:

- JuniorGP World Championship 40 minutes
- Moto2™ European Championship 40 minutes
- European Talent Cup 40 minutes

### 1.15.3 Lap time

All laps of the riders will be timed.

Official circuit records will be recognised as the following:

- All Time Lap Record - the fastest lap time in history, including all sessions at a race event.
- Best Race Lap - the fastest lap time in history recorded during a race.

For both practice and race, the lap time is the subtraction of the time between two consecutive crossings of the plane of the finish line indicated by the line painted on the track.

### 1.15.4 Qualification for the race

To qualify for the race, a rider must achieve a qualifying time during the qualifying practices, at least equal to **107%** of the time recorded by the fastest rider in same session/group.

Exemptions may be granted by the Race Direction **at their sole discretion**.

If, due to mechanical failure or crash, a rider cannot take part in any of the qualifying sessions, and provided that the grid is not complete, the Race Direction could allow the rider to take part in the Warm-Up. The rider must achieve a maximum qualifying time of the warm-up, **107%**, which will allow the rider to take the last position in the starting grid.

## **1.16 GRID POSITIONS**

### **1.16.1 Pole position**

The pole position, allocated to the fastest rider, will be determined during the homologation of the circuit.

### **1.16.2 Grid**

The Grid will be arranged in the 3-3-3-3 configuration “in echelon”.

Each line will be offset.

There will be a distance of 9 metres between each row.

Also refer to FIM Circuit Standards available at: <http://www.fim-moto.com/en/library/>.

### **1.16.3 Grid Positions**

Grid positions will be based on the fastest lap time recorded by each rider in all qualifying practices.

When a class is split into several divided practice groups, the positions on the starting grid will be allocated starting with the best time of the first placed, followed by the 2<sup>nd</sup> time of the first placed, then the best time of the 2<sup>nd</sup> placed, followed by the second best time of the 2<sup>nd</sup> placed etc, until fulfilling the starting grid.

If the starting positions of any of the groups cannot be fully attributed in conformity with the qualification criteria as a consequence of having a group of riders that do not fulfil these conditions, these positions will be attributed to those riders qualified in the other groups.

### **1.16.4 Tie**

In the event of a tie, riders’ second and subsequent best times will be taken into account.

### **1.16.5 Provisional & Final Starting Grid**

Once the qualifying practices are over, a provisional starting grid will be published including, if any, the two following classified riders that will be allowed to take part in the warm up.

The final grid will be published after the warm up has been completed, at the latest one hour before the start of the race, including the in case of any free grid position, the reserved riders. Being a reserved rider does not necessarily mean that this rider will take part in the race.

Exception may be granted by the race Direction.

### 1.16.6 Back of the Grid Position

In regard to grid positions and start procedures, “back of the grid” is defined as the grid position immediately after the final rider’s qualifying grid position. In the case of multiple back of grid starts riders will take subsequent positions according to the specific rule being invoked.

Race Direction may change the back of the grid definition where necessary due to circuit conditions.

### 1.16.7 Pit lane Race Start

In the case of a rider starting the race from pit lane, when this is known before the final grid is published (eg. due to a penalty), the final grid will show the rider in last position and riders qualifying behind that rider will move up to fill the vacant positions. The rider will make the sighting lap and take last place on the grid, then enter pit lane at the end of the warm up lap, in order to start the race from pit lane.

### 1.16.8 Reserved riders

In case of a qualified rider can not take part in the race, then ~~39<sup>th</sup> and 40<sup>th</sup>~~ **the first two** qualified rider in the qualifying practices, will be reserved riders and will be able to take part in the warm up.

Exception may be granted by the Race Direction.

## 1.17 RACES

### 1.17.1

The length of races must be according to the following parameters:

- JuniorGP World Championship: between 60 Km and 90 Km
- Moto2™ European Championship: between 65 Km and 90 Km
- European Talent Cup: between 60 Km and 90 Km

### 1.17.2

The length of a race may only be varied by the Race Direction.

### 1.17.3

A visible countdown board will be shown at the finish line to indicate the number of remaining laps in the race.

### 1.17.4

If the Timekeeping rooms are fed by normal power (electricity) supply, they must also be permanently connected to an U.P.S. (Uninterruptible Power System) and to a generator.

## 1.18 START PROCEDURES

### 1.18.1 Standard Start Procedure

1) Only riders who have completed at least one sighting lap will be permitted to start the race from their position published on the final grid. Under no circumstances they may push their motorcycle onto the grid from the pit lane.

2) Approximately 15 Minutes before the Start of the Race - (except in the case of a restarted or reschedule race).

Pit lane exit opens for sighting laps.

Green lights on at the pit lane exit.

Count-down boards of 5, 4, 3, 2 and 1 minutes are shown at the pit exit.

Riders may complete more than one sighting lap by passing through the pit lane where they may make adjustments, change tyres or refuel.

3) Approximately 10 Minutes before the Start of the Race (except in the case of a restarted or reschedule race).

Pit lane exit closes.

Red lights on at the pit lane exit.

4) Riders who do not go onto the grid may start the warm up lap from the pit lane under the instructions of a marshal positioned at the pit lane exit.

Riders starting the warm up lap from the pit lane must start the race from the back of the grid.

- 5) When riders reach the grid after the sighting lap(s) they must stop at the rear of the grid and turn off the engine. The motorcycle will then be pushed at walking pace by a team member to the grid position. The rider may dismount or remain on the motorcycle to be pushed to the grid position.

Riders on the grid may be attended by up to 5 mechanics and other staff, including one person who may hold an umbrella. All attendants on the grid must wear a “Grid Pass”.

Officials will display panels, at the side of the track, indicating the row of the grid, to assist riders in locating their grid position.

- 6) The Race Director will, at this stage, declare the race as “wet” or “dry” and will indicate this to the riders on the grid and those who may still be in the pit lane by the display of a board. If no board is displayed the race will automatically be “dry”.
- 7) Riders on the grid at this stage can make adjustments to the machine or change tyres to suit the track conditions.

Tyre warmers may be used on the grid.

One generator per motorcycle may be used to power tyre warmers on the grid. The generator must be a compact portable type.

Starter engines may also be used on the grid. One starter engine per motorcycle shall be used.

Generators and starter engines should be located to the rear of the motorcycles.

To ensure ease of mobility when clearing the grid, the size and type of grid equipment such as generators, tool trolleys, etc. is subject to the approval of the Technical Director.

All adjustments must be completed by the display of the 3 Minutes board.

After this board is displayed, riders who still wish to make adjustments on their motorcycle must push their motorcycle to the pit lane.

Such riders and their motorcycle must be clear of the grid and in the pit lane before the display of the 1 Minute board. There, they may continue to make adjustments.

Such riders will start the warm up lap from the pit lane and will start the race from the back of the grid.

- 8) At all time, refuelling or changing fuel tank on the grid is forbidden.
- 9) 5 Minutes before the Start of the Warm Up Lap - Display of 5 Minutes Board on the grid.
- 10) 3 Minutes before the Start of the Warm Up Lap - Display of 3 Minutes Board on the grid.

Generators must be disconnected and removed from the grid as quickly as possible.

At this point, all persons except maximum two mechanics per motorcycle, the person holding the umbrella for the rider, the television crew of the host broadcaster and essential officials must leave the grid.

Riders must put their helmets on.

Nobody (except essential officials) is allowed to enter on the grid anymore.

- 11) 1 Minute before the Start of the Warm Up Lap - Display of 1 Minute Board on the grid.

Immediate removal of tyre warmers from motorcycles on the grid.

At this point, all team personnel except the mechanics will leave the grid. The mechanics will, as quickly as possible, assist the rider to start the motorcycle and will then vacate the grid.

- 12) 30 Seconds before the Start of the Warm Up Lap - Display of 30 Seconds Board on the grid.

All riders must be in position on the grid with engines running. No further assistance from mechanics is permitted. Any rider who is unable to start his motorcycle must remove it to the pit lane, under the control of the grid marshals, where he may make further attempts to start it. Such riders may start the warm up lap from the pit lane and will start the race from the back of the grid.

- 13) 2 minutes before the start of the race - Green flag waved to start warm up lap.

Any rider who stalls his engine on the grid or who has other difficulties must signal by raising an arm. Attempting to restart the motorcycle on the grid is not permitted.

Under the supervision or assistance of an official, the rider and machine will exit the grid to the pit lane as quickly as possible where mechanics may provide assistance. Such rider(s) may start the warm up lap from the pit lane and will start the race from the back of the grid, provided he/they exit before the pit lane is closed and reach the grid before the Safety Car.

If they do not exit before pit lane is closed, they will start the race from pit lane.

Team personnel are not permitted to re-enter the grid after it has been cleared, unless instructed to do so by an official.

The riders will make one lap, at unrestricted speed, followed by a safety car. The safety car will overtake slow riders.

As soon as the riders that started from the grid have passed the pit lane exit point, the pit lane exit light will be turned green, and any rider waiting in the pit lane will be permitted to join the warm up lap. Thirty seconds later, the light will turn red closing the pit lane exit.

On returning to the grid the riders must take up their positions with the front wheel of their motorcycle up to and behind the front line and between the side lines defining the grid position and keep their engines running. The front tyre must not be touching the track surface outside of the painted lines.

If two or more riders must start from the back of the grid, they will take up position in the order, according with the starting grid.

An official will stand at the front of the grid holding a red flag motionless.

Any rider who arrives at the pit lane entry point at any time after the safety car, must enter the pit lane and start the race from the pit lane exit (therefore a rider who does not make the race start from the grid at the correct time, must make the start from the pit lane exit).

Any rider who encounters a problem with his motorcycle on the warm up lap may return to the pit lane and make repairs.

Any rider who stalls his engine on the grid or who has other difficulties must remain on the motorcycle and raise an arm. It is not permitted to delay the start by any other means. Attempting to restart the motorcycle on the grid is not permitted. Under the supervision or assistance of an official the rider and machine will exit the grid to the pit lane where mechanics may provide assistance.

As each row of the grid is completed, the officials will lower the panels indicating that their row is complete. Panels will not be lowered when a rider in that row has indicated that he has stalled his motorcycle or has other difficulties. When all panels have been lowered and the safety car has taken up its position, an, an official at the rear of the grid will wave a green flag.

The Starter will then instruct the official at the front of the grid, displaying the red flag, to walk to the side of the track.

- 14) A red light will be displayed for between 2 and 5 seconds. The red light will go out to start the race.

A safety car will follow behind the motorcycles for the whole of the first lap. The safety car will overtake slow riders.

If the red lights' device is fed by normal power (electricity) supply, it must also be connected to an U.P.S. (Uninterruptable Power System) to provide power to the starting lights' device if the electric line breaks down just at the moment of the start.

Any rider who anticipates the start will be penalised by the Race Direction. The standard penalty is two Long Lap Penalties as described in Art. 1.19.2.

The two Long Laps must be completed within 5 laps of the rider receiving notification of the penalty. Other penalties may be imposed.

The motorcycle must be stationary at the time the red lights are turned off. Anticipation of the start is defined by the motorcycle moving forward at the time the red lights are turned off.

In the case of a minor movement and subsequent stop whilst the red lights are on, the designated officials will be the sole judge of whether an advantage has been gained.

If a penalty is imposed for taking advantage by anticipating the start the Race Direction must communicate the penalty to the rider as soon as possible.

- 15) If, after the start of the race, a rider stalls his motorcycle, officials will assist to push the motorcycle into the pit lane, where his mechanics may provide assistance.

Team personnel are not permitted to re-enter the grid after it has been cleared, unless instructed to do so by an official.

- 16) After the riders have passed the pit lane exit point, the green light at the pit lane exit will be switched on to start any riders still in the pit lane.

A pit lane race start will be made from a stationary position as indicated by the officials. However, a rider who is delayed (for example due to motorcycle problems or repairs) and arrives after the pit exit is open, he will not be required to stop at pit exit before joining the race.

The exit of the pit road is defined as the point where the pit road joins the circuit, or as defined by the Race Direction (refer to Art. 1.21.19).

When more than one rider is starting the race from the pit lane, officials will control their start position and order.

In the interests of safety, when more than 10 riders will start the race from pit lane exit, the start will be delayed and a new start procedure will take place (Quick Start).

If less than 11 riders will start the race from pit lane exit, they will follow the Pit Lane Race Start Protocol:

- Riders arriving at pit lane exit will be directed to line up in single file (painted grid positions), in the order that they arrive.
- After the race start the pit lane exit will open for the riders in pit lane.
- The use of Launch Control electronics is forbidden when starting the race from pit lane.



- For riders starting the race from a stationary position on the painted grid in pit lane, the pit lane speed limit does not apply.
  - Overtaking is forbidden until the broken white line defining the point where the pit exit road joins the race track.
  - The solid white lines defining the pit exit rejoin lane must be respected, it is forbidden to cross these lines until after the broken white line where the pit exit road joins the race track.
- 17) Unless the race is interrupted, no further changes on the motorcycles are permitted, except as indicated in the technical regulations.

If a motorcycle that has been active in the race enters the pit box, this machine is deemed to be retired and may not re enter again in the race (refer to Art. 1.21.8).

## **1.18.2 Special Start Procedures**

### **1.18.2.1 Start Delayed**

Should there be a problem that might prejudice safety at the start, the Starter will invoke the Start Delayed procedure as follows:

- A red flag is waved from the Starter's rostrum and the red light stays on.
- The "Start Delayed" board is displayed from the Starter's rostrum and marshals will wave a yellow flag at each row of the starting grid from the signaling platform.
- Riders must stay in their grid position with helmets on, engines may be switched off.
- The motorcycle(s) which caused the Start Delayed procedure will be removed to the pit lane, regardless of what work is needed to restart the motorcycle(s). If it/they can be restarted the rider may start the warm up lap from pit lane, and will start the race from the back of the grid.
- After display of the Start Delayed board, a maximum of 2 mechanics per rider are allowed on the grid. Only tyre warmers, stands, starter engines and hand-carried tools are allowed, no generators are allowed on the grid.

- Only essential officials are allowed on the grid, no media, nor guests, nor umbrella-holders nor other team personnel will be permitted, with the exception of camera crew(s) authorised by the Organisers.
- The start procedure will be re-commenced at the 3 Minutes board, which the Starter will order to be displayed as soon as possible (normally as soon as all riders on the grid are attended by their team).
- Following the 1 Minute and 30 Seconds boards the riders will complete an additional warm up lap. The race distance will automatically be reduced by one lap or more if deemed necessary by Race Direction.

Any person who, due to his behaviour on the grid is responsible for a “start delayed” may be penalised.

### 1.18.2.2 Rain on Grid

If the pit lane is opened for the sighting lap with the track dry, but it becomes wet during or after the normal sighting lap (i.e. when riders are on the track or on the grid), the Race Direction may invoke the following procedure:

This procedure does not apply after the start of the warm up lap or after a race has been declared Wet (SEE Art. 1.20.1).

Riders are free to enter the pit lane after the warm up lap and start the race from there if they wish to make any adjustments. In this case Art. 1.20.1 will apply regarding the number of riders who will start from pit lane exit.

(Note: as climatic conditions and their severity can never be accurately forecast the Race Direction may react to specific situations by issuing different instructions. All instructions will be displayed on timekeeping monitors and teams will be informed by the officials.)

- The Rain on Grid board is displayed. This may be before or after the normal five minute countdown has started on the grid, but would normally be after the last bike has arrived on the grid.
- Wheels may be changed and adjustments made only on the grid.
- 5 minutes extra working time is given to change settings, so approximately five minutes after the Rain on Grid board is displayed, the 5 Minutes board is shown and the 5-3-1 Min.-30 Sec countdown is made before the start of the Warm Up lap.

- Team members must leave the grid as usual (refer to Art. 1.18.1. 10), 11), 12) above).
  - 3 Minutes board: adjustments completed,
  - 1 Minute board: tyre warmers removed,
  - 30 Seconds board: start engines.
- After the green flag the normal warm up lap and start procedure applies, riders make one Warm Up lap as usual and take up their original grid positions.
- Any rider who wishes to make adjustments after the start of the Warm Up lap must enter the pit lane to make them and start the race from there.
- The race distance is reduced to 2/3 of the original distance.

### **1.18.2.3 Wet Race Start (following all dry practices)**

In case a class has had all practice and warm up sessions dry (as declared by the Race Director), and the race start is declared wet before the opening of pit lane for the sighting lap, the following Wet Race Start procedure will apply.

- The declaration of Wet Race Start will be made as early as possible before the opening of the pit lane and communicated to teams.
- The pit lane will open on time and remain open for 10 minutes (5 minutes longer than normal).
- Riders may make more than one sighting lap, passing through the pit lane.
- Refuelling of any machine is permitted in pit lane/pit boxes during the sighting lap(s) period.
- The countdown boards at Pit Lane Exit will display 10 Min, 5 Min, 4 Min, 3 Min, 2 Min, 1 Min before the Pit Lane is closed.
- Three minutes after the close of Pit Lane, the normal warm up lap and start procedure applies, the countdown to the Warm Up lap will be made, 5 Min, 3 Min, 1 Min, 30 Sec.
- Therefore the Warm Up lap and Race Start will be 5 minutes delayed.
- Race distance is reduced to 2/3 of the original distance.

#### 1.18.2.4 Quick Start Procedure

When a race is stopped, riders must return to the pit lane, unless otherwise instructed by officials. If there is to be a restart, the following procedure will apply:

- Upon arrival in the pit lane, repairs and adjustments may be made to the motorcycle. Refuelling is permitted.
- When all riders have entered the pit lane the Race Director will announce the time remaining to the re-opening of the pit lane, which will be a minimum of 5 minutes. The time remaining to the opening of the pit exit will be displayed on timing screens and countdown boards.
- When the time period has elapsed, the pit lane exit will be opened for SIXTY SECONDS only. Riders will make one lap at unrestricted speed to the starting grid, followed by a Safety Car.

Any rider delaying the progress of the sighting lap will be overtaken by the Safety Car.

Any rider arriving behind the Safety Car must enter the pit lane.

Such riders will have to start the warm up lap from the pit lane and will start the race from the back of the grid.

- Any riders remaining in the pit lane after it has been closed will have to start the warm up lap from the pit exit and start the race from the back of the grid.
- ONE mechanic only, per rider, may go onto the grid (without tools) to primarily indicate to his rider his position on the grid.

In the case that the restarted race involves new grid positions, the mechanic should avail himself of his rider's new grid position from the classification displayed on the timing screen or from officials who will be positioned at the entry point to the grid with the revised starting grid information.

- Riders will arrive back on the starting grid and stop in their grid position, with engines running, no adjustments may be made.

Any rider requiring repairs or adjustments on the sighting lap from the pit exit must enter the pit lane.



- As soon as the Safety Car arrives at the back of the grid, a 30 seconds board will be displayed at the front of the grid.

At this point the mechanics must immediately leave the grid by the quickest route. The 30 seconds may be reduced at the discretion of the Starter when the grid is cleared and it is considered safe.

- After 30 seconds have elapsed and/or the grid is clear, a green flag will be shown to start the warm up lap.
- The riders will make one warm up lap at unrestricted speed, followed by a Safety Car. When the last rider has passed the level of pit exit light point, the pit lane will be opened for a period of 30 seconds to release any rider waiting there.

After 30 seconds, the pit lane exit will remain closed until after the start of the race.

Any rider not able to leave the pit exit whilst it is open will start the race from the pit exit.

Any rider delaying the progress of the warm up lap will be overtaken by the Safety Car.

- Upon arrival back at the starting grid the normal start procedure will be followed, with the start signal given in the normal manner.
- Riders who started the warm up lap from the pit lane must start the race from the back of the grid as directed by officials.

In case of two or more riders, must start from the back of the grid, they will take up last grid positions in the order they qualified for the race (in order of their grid positions) or, in case of a restarted race, according to the position they qualified in the previous Red Flagged race (i.e in order of their new grid positions).

Any rider arriving at the pit lane entry point after the Safety Car must enter the pit lane and start the race from the pit lane exit.

- After the start signal has been given and the last rider has passed the end of the pit exit road, the pit exit will be opened, as per Art. 1.18.1. 16).

Any riders still in the pit lane may then start the race.

- The Race distance will be according to Art. 1.26.

NB: The Quick Start procedure may be invoked by Race Direction as necessary in cases other than an interrupted race (for example a delayed start procedure).

## 1.19 RACE PENALTIES PROCEDURES

Among various penalties, the Race Direction may apply the following ones:

### 1.19.1 Ride through Procedure

During the race, a rider may be requested to ride through the pit lane. Stopping is not permitted.

The rider may then rejoin the race.

The rider must respect the speed limit (Art. 1.21.13), in the pit lane. In case of infraction of this speed limit, the ride through procedure will be repeated; in case of a second infraction of this speed limit, the black flag will be shown to the rider.

In the event of a restarted race, the above regulation will also apply.

In the case of a race interrupted prior to the penalty being complied with and if there is a second part, the rider will be required to **complete the penalty** after the start of the second part of the race.

Yellow boards (100 cm horizontal x 80 cm vertical) displaying the riders' numbers (black colour) will be shown at the **start and/or** finish line and the information will also be displayed on the timekeeping monitors.

Failure by the relevant rider to ride through, having been shown the board 3 times, will result in that rider being shown the black flag.

In the case where the organisation has been unable to carry out the ride through penalty before the end of the race, the relevant rider will be inflicted with a time penalty as determined by the Race Direction to reflect the ride through time, and notified to teams before the race.

## 1.19.2 Long Lap(s) Penalty Procedure

During a race, a rider may be instructed to complete one or two Long Lap(s) Penalty procedure. The rider must ride through the pre-defined route, usually painted on an asphalt runoff area.

The penalty will be communicated via a board displayed for the rider at the **start and/or** finish line or other pre-defined area.

If the rider does not comply with the one Long Lap penalty after the board has been presented 3 times the rider will be penalised with two (2) Long Laps penalty (or other penalty as decided by the Race Direction).

In the case of a 2 x Long Laps Penalty being given, these 2 Long Laps must be completed within 5 laps of the penalty notification.

If the rider does not complete this 2X Long Laps Penalty after the board has been presented 5 times, he will be penalised with a pit lane Ride through (or other penalty as decided by the Race Direction).

The rider must stay within the lines defining the Long Lap route, infractions may result in the penalty being repeated, or other penalty applied as decided by the Race Direction.

The rider carrying out the Long Lap(s) penalty is responsible for leaving and re-joining the track to follow the designated route, in a safe manner without disturbing or endangering other riders.

Infractions will be strongly penalised.

Overtaking is forbidden within the Long Lap route.

The penalty should not be carried out when there are yellow flag(s) covering the penalty area, in this case extra lap(s) will be added to the number of laps allowed to comply if the area is unusable due to yellow flag(s).

In the case where the organisation has been unable to, or has decided not to carry out the long lap(s) penalty before the end of the race, the relevant rider will be inflicted with an equivalent time penalty, or other penalty as decided by the Race Direction.



In the case of a race interrupted prior to a long lap(s) penalty being carried out, the relevant rider will be required to carry out a long lap(s) penalty in the second part if the race is restarted or other penalty such as an equivalent time penalty, as decided by the Race Direction.

The Long Lap route and equivalent time penalty will be notified to the teams prior to the first practice session.

## **1.20 “WET” AND “DRY” RACES**

All races will be categorised as either wet or dry. A board may be displayed on the grid to indicate the status of the race. If no board is displayed, the race is automatically dry. The purpose of this classification is to indicate to riders the consequence of varying climatic conditions during a race.

### **1.20.1 Races**

#### **1.20.1.1**

Dry Races - a race classified as dry will be interrupted by the Race Director, if he considers that climatic conditions affecting the surface of the track makes it likely that riders will wish to change tyres.

#### **1.20.1.2**

Wet Races - a race classified as wet, usually commenced in varying or wet conditions, will not be interrupted for climatic reasons and riders who wish to change tyres or make adjustments must enter the pits and do so during the actual race.

#### **1.20.1.3**

In all cases where the first race is interrupted for climatic reasons, then the restart will automatically be a “wet” race.

## **1.21 BEHAVIOUR DURING PRACTICE AND RACE**

- 1) Riders must obey the flag signals, the light signals, and the boards which convey instructions. Any infringement to this rule will be penalised according to the provisions of Art. 1.22.



- 2) Riders must ride in a responsible manner which does not cause danger to other competitors or participants, either on the track or in the pit-lane. Any infringement of this rule may be penalised.
- 3) Riders should use only the track and the pit-lane. However, if riders accidentally leave the track then **they** may rejoin it at the place indicated by the officials or at a place which does not provide an advantage to **them**.

Any infringement of this rule during the practices or warm up will be penalised by the cancellation of the lap time concerned and during the race, by a penalty decided by the Race Direction.

Penalties imposed during a race will be communicated via a board displayed for the rider on the **start and/or** finish line during a maximum of 3 laps (5 laps in case of a 2X Long Laps Penalty).

If the rider did not comply with the penalty after the board has been presented 3 times (5 times in case of a 2X Long Laps Penalty), he will be penalised by the Race Direction (penalties may include Long Lap, 2 x Long Laps, Ride through, Black flag).

A time penalty may be imposed in lieu of a penalty where necessary. Further penalties may also be imposed.

- 4) Any repairs or adjustments along the race track must be made by the rider working alone with absolutely no outside assistance except that rendered by the marshals. The marshals may assist the rider to the extent of helping **them** to lift the motorcycle and holding it whilst any repairs or adjustments are made. The rider may then be assisted by marshals or others to re-start by pushing or to move the motorcycle on track, trackside or in the service road. No other person than marshals or riders are permitted on the track side of the first line of protection.
- 5) If the rider intends to retire, then **they** must park **their** motorcycle in a safe area as indicated by the marshals.
- 6) If the rider encounters a problem with the motorcycle which will result in **their** retirement from the practice or the race, then **they** should not attempt to tour at reduced speed to the pits but should pull off the track and park **their** motorcycle in a safe place as indicated by the marshals.



- 7) Riders who are returning slowly to the pit lane for remedial work should ensure that they travel as far as possible off the racing line.
- 8) Riders may enter the pit lane during the race, but taking the motorcycle inside the pit box is not permitted. Adding and removing fuel in pit lane during the race (ie. after the race start) is strictly prohibited. Any infringement of this rule will be penalised with a disqualification.
- 9) Riders who stop their engines in the pits may be assisted to re-start their motorcycle by the mechanics.
- 10) Riders are not allowed to transport another person on their motorcycle or to be transported by another rider on **their** motorcycle (exception: Another rider or by another rider after the chequered flag or red flag).
- 11) Riders must not ride their motorcycles in the opposite direction of the circuit, either on the track or in the pit lane, unless doing so under the direction of an Official.
- 12) No signal of any kind may pass between a moving motorcycle and the rider's team, or anyone connected with the motorcycle's team, entrant or rider, except for the signals of the timekeeping transponder, lap trigger, GPS, legible messages on a pit board, or body movements by the rider or team. Onboard TV camera signals are allowed, but only when such signals are for the purposes of and managed by the Championship promoter. It is strictly prohibited the placement of systems, of any type, image recording on the motorcycle and/or pilot, other than those set by the championship promoter and controlled by it.
- 13) A speed limit of 60 km/h will be enforced in the pit lane at all times during the event.

Riders must respect the speed limit from where the sign 60 km/h is placed up to where the sign 60 km/h crossed out is placed.

Any rider found to have exceeded the limit during the practice will be subject to a minimum fine of 75 €ur for the first offence.

Repeat offences at the same event will incur a higher fine each time, and any rider committing 3 offences at a single event may also be subject to further penalties from the Race Direction.

Excessively high speed, in the judgement of the Race Direction and multiple repeat offences during the season may incur higher fines and may also be subject to further penalties.

For exceeding the pit lane speed limit during a race, the standard penalty will be a 2x Long Laps Penalty. However, the Race Direction may apply further or different penalties (for example for excessively high speed causing danger).

The Race Direction must communicate the offence to the pit of the rider after having received the information from the Official in charge.

- 14) Stopping on the track during practices and races is forbidden.
- 15) During the practice sessions and warm ups, practice starts are permitted;
  - a) When it is safe to do so, at the pit lane exit before joining the track and
  - b) After passing the chequered flag at the end of practice sessions and warm-ups when it is safe to do so, off the racing line and only in the designated Practice Start Zone(s) and following the procedure, as communicated to teams prior to the first practice session. Infringement of this rule will incur an instant fine and further penalties may be applied. Practice Starts during a Red Flag situation are strictly prohibited.
- 16) If any rider wishes to parade a flag or engage in any celebration after the chequered flag, they must ride to the side of the racing surface in a safe location to collect the flag and/or perform any celebrations and then rejoin the circuit when it is safe to do so. Before the celebration the rider must request authorization to the Race Direction.

It is forbidden to stop on the start-finish straight after the chequered flag for any celebrations of any kind.
- 17) It is not permitted to ride racing motorcycles within the circuit other than in the pit lane, service road or on the track.
- 18) After the chequered flag, riders riding on the track must wear a safety helmet until they stop on the pit lane/parc fermé.

## 19) Pit Lane Exit

The pit lane exit road will be defined by the Race Direction and marked with painted lines. A dotted white line (interrupted line) will signify the end of the pit lane road, which is the point where the track starts and racing may commence. Riders must stay inside the painted lines defining the pit exit road until passing the dotted white line, during all track sessions (practices and race(s)).

Infractions may be penalised with an instant penalty by Race Direction, and further penalties may be applied.

## 1.22 FLAGS, BOARDS AND LIGHTS

Marshals and other officials display flags, boards or lights to provide information and/or convey instructions to the riders.

All flags are presented waved.

Light panels may be used in addition to, or instead of, flags and may have slight variations in appearance compared to the flags, due to technical constraints. Flags and lights on track are both official signals.

### 1.22.1 Flags and Lights Used to Provide Information

- **Green Flag**

The track is clear.

This flag must be waved at each flag marshal post for the first lap of each practice session and of the warm up, for the sighting lap and for the warm up lap.

This flag must be shown waved at the flag marshal post immediately after the incident that necessitated the use of one or more yellow flags.

This flag may be waved at pit exit, in conjunction with the official signal of the green light, as an extra signal that pit lane exit is open.

- **Yellow and Red Striped Flag**

The adhesion on this section of the track could be affected **by any reason other than rain (oil gravel, grass or other debris)**. This flag must be shown waved at the flag marshal post.

- **White Flag with diagonal red cross** (stroke width of the cross: between 10 & 13 cm)

Drops of rain on this section of the track **including rain affecting the track surface**.

This flag must be waved at the flag marshal post.

- **Blue Flag**

Waved at the flag marshal post, this flag indicates to a rider that **they** are about to be overtaken.

During the practice sessions, the rider concerned must keep **their** line and slow down gradually to allow the faster rider to pass.

During the race, the rider concerned is about to be lapped. **They** must allow the rider(s) who are lapping him to pass **them** at the earliest opportunity, and passing within a group of lapped riders is forbidden under the blue flag.

Waved at a marshal post after the pit lane exit, this flag indicates to a rider exiting pit lane that riders are approaching on track. The rider exiting pit lane must do so safely and without disturbing riders on track.

- **Chequered Black / White Flag(s)**

This (these) flag(s) must be waved at the finish line to indicate the finish of race or practice session.

- **Chequered Black / White Flag(s) and Blue Flag(s)**

The chequered black/white flag(s) must be waved together with the blue flag(s) at the finish line when a rider(s) precedes closely the leader during the final lap before the finish line (see Art. 1.24.1).

- **Green Light**

This light must be switched on at the pit lane exit to signal the start of each practice session and of the warm up, the start of the sighting lap(s) and the start of the warm up lap.

- **Flashing Blue Lights**

This light must be switched on at the pit lane exit at all time during practices and races, except when the red light is displayed.

## 1.22.2 Flags Which Convey Information and Instructions

- **Yellow Flag(s)**

Waved at each row of the starting grid, these flags indicate that the start of the race is delayed. Waved at one row (or more) of the starting grid, this flag indicates that a rider on that row is having difficulties.

A single yellow flag waved at the flag marshal post indicates that there is a danger ahead beside the track.

Two yellow flags waved together at the flag marshal post indicate that there is a hazard wholly or partly blocking the track.

The waving of a single or a double yellow flag does not signify a degree of danger, but only the location of the incident.

The riders must slow down and proceed with caution.

**During practice and warm up sessions, the lap time of riders passing under one (1) yellow flags can be cancelled.**

**During practice and warm up sessions, the lap time of riders passing with two (2) yellow flags will be cancelled.**

During a race, overtaking is forbidden up until the point where the green flag is waved.

An infringement of this rule during will result in a penalty.

If immediately after having overtaken, the rider realises that **they** committed an infraction, he must **intentionally** let pass the rider(s) **they have** overtaken. In this case, no penalty will be imposed.

Penalties imposed during a race will be communicated via boards displayed for the rider on the **start and/or** finish line during a maximum of 3 laps (5 laps in case of a 2X Long Laps Penalty).

If the rider does not comply with the penalty after the board has been presented 3 times (5 times in case of a 2X Long Laps Penalty, he will be penalized by the Race Direction.

A time penalty may be imposed in lieu of a penalty where necessary, and further penalties may also be imposed.

During the final inspection lap, this flag must be waved at the exact place where the flag marshal will be positioned during the practices, the warm up(s) and races.

- **Red Flag and Red Lights**

When the race or practice is being interrupted, the red flag will be waved at each flag marshal post and the red lights around the track will be switched on. Riders must return slowly to the pits.

When the pit-lane exit is closed, the light will be switched on, and the red flag may be used in conjunction with the official red light signal.

Riders are not allowed to exit the pit lane.

The red flag will be shown motionless at the back of the starting grid at the end of the sighting lap.

The red flag will be presented motionless at the front of the starting grid at the end of the warm up lap.

The red flag may also be used to close the track.

The red lights will be switched on at the start line for between 2 and 5 seconds to start each race.

- **Black Flag**

This flag is used to convey instructions to one rider only and is waved at each flag marshal post together with a board with the rider's number. The rider must stop at the pits at the end of the current lap and cannot restart, when this flag results from a penalty.

This flag can also be presented to a rider for a reason other than a penalty, eg. to rectify a non-dangerous technical problem such as a transponder problem or to indicate to a rider on the warm up lap arriving at pit lane entry after the safety car, that they must enter pit lane.

- **Black Flag with orange disk (Ø 40 cm)**

This flag is used to convey instructions to one rider only and is waved at each flag marshal post together with a board with the rider's number. This flag informs the rider that **their** motorcycle has mechanical problems likely to endanger **themselves** or others, and that **they** must immediately leave the track. The rider cannot rejoin the track unless authorised to do so by an official.

### **1.22.3 Flag Dimension**

The flag dimension should be 80 cm in the vertical and 100 cm in the horizontal.

The flag dimension will be checked the day preceding the day of the first practice session.

### **1.22.4 Flag Colour**

The Pantones for the colours are as follows:

Orange:	Pantone 151 C
Black:	Pantone Black C
Blue:	Pantone 298 C
Red:	Pantone 186 C
Yellow:	Pantone Yellow C
Green:	Pantone 348 C

The flags' colours will be checked the day preceding the day of the first practice session.

### **1.22.5 Rider's number board**

Black board (70 cm horizontal x 50 cm vertical) which enables the race number of a rider to be attached with a set of numbers in white, whose stroke width is minimum 4 cm and height minimum 30 cm.

This board must be available at each flag marshal post.

### **1.22.6 Flags Marshals posts**

The location will be fixed during the circuit homologation.

### **1.22.7 Marshals Uniforms**

It is strongly recommended the marshals' uniforms to be in white or orange (Ref. Pantone: 151 C) and the rain coat to be transparent.

## **1.23 MEDICAL CARS**

The medical cars must be equipped with yellow flashing lights. The words "MEDICAL CAR" should be clearly indicated on the back and the sides of the car.

## 1.24 FINISH OF A RACE AND RACE RESULTS

### 1.24.1

When the leading rider has completed the designated number of laps for the race, **they** will be shown a chequered flag by an official located at the finish line, behind the 1<sup>st</sup> protection line. The chequered flag will continue to be displayed to the subsequent riders.

When the chequered flag is shown to the leading rider, no other rider will be permitted to enter the track from the pit lane.

As soon as the chequered flag is shown to the leading rider, the red light will be switched on at the pit lane exit.

If a rider(s) closely precedes the leader during the final lap before the finish line, the official will show to the rider(s) and to the leader simultaneously the Chequered flag and the Blue flag. That means that the race is finished for the leader while the rider(s) closely preceding the leader has (have) to complete the final lap and take the Chequered flag.

### 1.24.2

To be counted as a finisher in the race and be included in the results a rider must:

- a) Complete 75% of the race distance.
- b) Cross the finish line on the race track (not in the pit lane) within five minutes of the race winner. The rider must be in contact with his motorcycle. In case the rider is not in contact with the motorcycle, the finish time is determined by the first part of the rider or motorcycle to cross the finish line, whichever arrives last.

### 1.24.3

The results will be based on the order in which the riders cross the line and the number of laps completed (SEE Art. 1.35).

### 1.24.4

In case of a photo-finish between two or more riders, the decision shall be taken in favour of the competitor whose front wheel leading edge crosses the plane of the finish line first. In case the rider is not in contact with the motorcycle, the finish time is determined by the first part of the rider or motorcycle to cross the finish line, whichever arrives last.

In case of ties, the riders concerned will be ranked in the order of the best lap time made during the race. The Timekeeper will be in charge of delivering a final opinion and submitting it to the Race Direction, in case of doubt.

#### 1.24.5

The riders placed in the first three positions in the race will be escorted by officials, as quickly as possible, to the podium for the awards ceremony. Participation in the podium ceremony by the first three riders is compulsory.

#### 1.24.6

The Results of a race will be considered as definitive when all the required control/test (technical, fuel, etc) have been made. If, as a result of waiting for the tests, a classification is waiting to be approved, this should be communicated to the teams.

### 1.25 INTERRUPTION OF A RACE

#### 1.25.1

If the Race Director decides to interrupt a race at any point from the start of the warm up lap onwards, then red flags will be displayed at the finish line and at all marshals' posts the red lights **will be displayed around** the circuit. Riders must immediately slow down and return to the pit lane.

The results will be the results taken at the last point where the leader and all other riders on the same lap as the leader had completed a full lap without the red flag being displayed.

#### Exceptions:

1. If the race is interrupted after the chequered flag, the following procedure will apply:
  - a) For all the riders to whom the chequered flag was shown before the interruption, a partial classification will be established at the end of the last lap of the race.
  - b) For all the riders to whom the chequered flag was not shown before the interruption, a partial classification will be established at the end of the penultimate lap of the race.

- c) The complete classification will be established by combining both partial classifications as per the lap/time procedure.
2. In an interrupted race, if the leader and all active riders on the same lap have completed a full lap before the red flag is displayed, and at that time there is a rider in pit lane which closes due to the red flag without the rider crossing a timekeeping point to complete the lap, the results will be taken from the last timekeeping point that the race leader and all other active riders on the same lap as the leader have crossed.

If there is a problem with a rider's timekeeping transponder, the results will be taken from the previous finish line results.

In all cases, at the time the red flag is displayed, riders who are not actively competing in the race will not be classified (SEE Art. 1.35).

Within 5 minutes after the red flag has been displayed, riders who have not entered the pit lane, crossing the designated pit lane entry timing point, **together with** their motorcycle, will not be classified.

An exemption may be granted in exceptional circumstances (eg. post-race celebration in an interrupted race deemed to have been completed as per Art. 1.25.4).

### 1.25.2

If the results calculated show that less than three laps have been completed by the leader of the race and by all other active riders on the same lap as the leader, then the race will be null and void and a completely new race will be run.

If it is found impossible to re-start the race, then it will be declared cancelled and the race will not count for the Championship.

### 1.25.3

If three laps or more have been completed by the leader of the race and all other active riders on the same lap as the leader, but less than two thirds of the original race distance, rounded down to the nearest whole number of laps, then the race will be restarted according to Art. 1.26. If it is found impossible to restart the race, then the results will count and half points will be awarded in the Championship.

#### 1.25.4

If the results calculated show that two-thirds of the race distance rounded down to the nearest whole number of laps have been completed by the leader of the race and by all other active riders on the same lap as the leader, the race will be deemed to have been completed and full Championship points will be awarded.

#### 1.25.5

For the purposes of these regulations “active” and “actively competing” are defined as the rider riding on track, or attempting to repair/restart the engine, or to rejoin the track or return to pit lane with the motorcycle in a condition fit to rejoin the track. The Race Direction will be the sole judge of whether a rider is actively competing including the condition of the motorcycle, and no appeal is possible against the Race Direction decision.

### 1.26 RE-STARTING A RACE THAT HAS BEEN INTERRUPTED

Re-started races will in principle follow the protocols defined in Art. 1.26. However, as local track and climatic conditions and circumstances may vary, Race Direction may reschedule re-started races in the race programme as necessary, and will make the final decision on whether, when and how many times to re-start any interrupted race according to circumstances.

Note that in all cases of restarted races, the calculation of race distance required to declare a result (2/3 distance) is based on the number of laps of the current race, not the original Race 1 distance.

#### 1.26.1

If a race has to be re-started, then it will be done as quickly as possible, consistent with track conditions allowing. As soon as the riders have returned to the pits the Race Director will announce a time for the new start procedure to begin which, conditions permitting, should not be later than 10 minutes after the initial display of the red flag.

The Race Direction will decide the appropriate changes in the schedule in order to include the new start after some other category(-ies) take place.

## 1.26.2

The results of the first race must be available to teams before the second part of a race can be started.

## 1.26.3

The start procedure will be the same for all classes and will follow the Quick Start Procedure, Art. 1.18.2.4, unless otherwise informed by the Race Direction.

## 1.26.4

Conditions for the re-started race will be as follows:

- i) In the case of situation described in Art. 1.25.2 (less than 3 laps completed) above:
  - a) All riders may start, including riders who may not have completed the sighting or warm up lap for the original start.
  - b) Motorcycles may be repaired or changed. Refuelling is permitted.
  - c) The number of laps will be two-thirds of the original race distance rounded down to the nearest whole number of laps.
  - d) The grid positions will be as for the original race.
- ii) In the case of situation described in Art. 1.25.3 (3 laps or more and less than two-thirds completed):
  - a) Only riders who are classified as finishers, as per Art. 1.25, in the first race may re-start.
  - b) Motorcycles may be repaired. Refuelling is permitted.
  - c) The number of laps of the second race will be the number of laps required to complete two-thirds of the original race distance rounded down to the nearest whole number of laps with a minimum of 5 laps.

Riders who are classified 1 lap down in the first race will start the restarted race from Pit Lane.

Riders who are classified 2 or more laps down in the first race will not be eligible to restart.

- d) The grid position will be based on the finishing order of the first race.
- e) The final race classification will be established according to the position and the consolidated number of laps of each rider at the time he crossed the finish line at the end of the last part of the race. Provisions of Art. 1.24.2 will apply.

### 1.26.5

In the case of Art. 1.25.3, (race interrupted with 3 or more laps completed), any start position penalties applying to a rider in the first race. e.g. a drop of grid position or starting the race from pit lane, will be considered to have been served at the original race start and will not apply to the restarted race.

Any existing penalty applied before the race (eg. Long Lap(s) Penalty, Ride Through) which has been completed in the first part of the race, will be considered to have been served and will not apply to the restarted race. If such penalty was not completed in the first part of the race, it will be carried forward to be served in the restarted race.

In the case of Art. 1.25.2, (race interrupted with less than 3 laps completed) the new start will be a completely new race so therefore existing start position penalties and other penalties applied before the race will apply.

Penalties applied for offences (such as jump start, track limits) during the first race which was interrupted with less than 3 laps completed, will not normally carry forward to the restarted race. However the Race Direction may specifically designate a penalty for an offence (for example dangerous or irresponsible riding) in the first race to be served in the restarted race where necessary.

### 1.26.6

Should a re-started race be interrupted and the Race Direction deems it possible to re-start, then the conditions for a further re-start will follow Art. 1.26.4, with the race distance and results defined as follows:

1. If Race 1 was interrupted before 3 laps completed, and:
  - a) Race 2 has completed at least two-thirds of Race 2 distance (according to 1.25.1) before being interrupted, then:  
The race is deemed completed and full Championship points will be awarded.

- b) Race 2 has completed less than two-thirds of Race 2 distance, then:

I. Restart not possible:

Race 2 is declared cancelled and no Championship points will be awarded.

II. Restart possible:

Race 3 started as follows:

- If Race 2 completed more than 3 laps, Art. 1.26.4.ii applies (only finishers of Race 2 may start, motorcycles may be repaired and refuelled, grid based on Race 2 result), with race distance of two-thirds of Race 2 distance with a minimum of 5 laps.
- If Race 2 completed less than 3 laps, Art. 1.26.4.i applies (all riders may start, motorcycles may be repaired and refuelled, original grid), with race distance of two-thirds of Race 2 distance with a minimum of 5 laps.

If Race 3 is interrupted, results as follows:

- If at least 2/3 of Race 3 distance or 5 laps (whichever is less) have been completed (according to Art. 1.25.1), the race is deemed to have been completed and full Championship points will be awarded.
- If less than 2/3 of Race 3 distance or 5 laps (whichever is less) have been completed, the race is declared cancelled and no Championship points will be awarded.

(In this case, any further restart will be at the discretion of Race Direction, following Art. 1.26.6.A.1.)

2. If Race 1 was interrupted after 3 laps but less than two-thirds race distance completed, and:

- a) Race 2 has completed at least two-thirds of Race 2 distance (according to Art. 1.25.1) before being interrupted, then:

The race is deemed completed and full Championship points will be awarded (regardless of the number of laps completed in Race 1).

b) Race 2 has completed less than two-thirds of Race 2 distance, then:

I. Restart not possible:

Race 2 is declared cancelled and full Championship points will be awarded based on the results of Race 1, provided 5 or more laps were completed in Race 1.

If less than 5 laps were completed in Race 1, then the race is declared cancelled and no Championship points will be awarded.

II. Restart possible:

Race 3 started as follows:

- If Race 2 completed more than 3 laps, only finishers of Race 2 may start, motorcycles may be repaired and refuelled, grid based on Race 2 result, with race distance of two-thirds of Race 2 distance with a minimum of 5 laps.
- If Race 2 completed less than 3 laps, only finishers of Race 1 may start, motorcycles may be repaired and refuelled, grid based on Race 1 result, with race distance of two-thirds of Race 2 distance with a minimum of 5 laps.

If Race 3 is interrupted, results as follows:

- If at least 2/3 of Race 3 distance or 5 laps (whichever is less) have been completed (according to Art. 1.25.1), the race is deemed to have been completed and full Championship points will be awarded.
- If less than 2/3 of Race 3 distance or 5 laps (whichever is less) have been completed, the race is declared cancelled and full Championship points will be awarded based on the results of Race 1, provided 5 or more laps were completed in Race 1.
- If less than 5 laps were completed in Race 1, then the race is declared cancelled and no Championship points will be awarded.

(In this case, any further restart will be at the discretion of Race Direction, following Art. 1.26.6.A.1)

## 1.27 TECHNICAL CONTROL AREA

In case of a technical protest related to a motorcycle to take part in two races in the same day, it has to be determined one way to guarantee that the bike could not be fixed without being controlled by the technical scrutineers, in order to assure the proper technical control related to the protest after the last of the races.

At the end of each race, or the final part of a race that has been interrupted, a technical control with dismantling may be carried out on the first 3 motorcycles and other motorcycles chosen by random by the Race Direction or the Technical Director. Those riders whose motorcycles have to go through the final technical control must be informed via an official notification. Their mechanics must come to the Technical Control Area with the necessary tools within the 30 minutes at the latest following the official notification.

Furthermore, upon the Championship Technical Director request, the engines or specific parts of the motorcycles may be sealed in order to verify them when he decides.

The seals will be valid for qualifying sessions, races or events specified by the Technical Director.

The rider or technical manager will sign a declaration of sealing where the numbers and quantity of seals will be listed.

In case of break or elimination of the seals, the pilot will be declassified from the session(s), race(s) or event(s) on which sealed engine or parts have been used.

If the rider or the team needs to perform maintenance on the engine or sealed part(s), he must notify the Technical Director the latest half an hour after the end of the of the session of his category to perform the work under the supervision of a Technical Steward afterwards a new seal will be put in place.



## 1.28 CHAMPIONSHIP POINTS AND CLASSIFICATION

### 1.28.1

Riders will compete for the Championship.

Constructors will compete for the **FIM JuniorGP** World Championship and for the **Moto2** European Championship.

### 1.28.2

For riders, the points will be those gained in each race.

### 1.28.3

For Constructors, only the highest placed motorcycle of a Constructor will gain points, according to the position in the race.

### 1.28.4

For each race, Championship points will be awarded on the following scale:

Position	Points
1 <sup>st</sup>	25
2 <sup>nd</sup>	20
3 <sup>rd</sup>	16
4 <sup>th</sup>	13
5 <sup>th</sup>	11
6 <sup>th</sup>	10
7 <sup>th</sup>	9
8 <sup>th</sup>	8
9 <sup>th</sup>	7
10 <sup>th</sup>	6
11 <sup>th</sup>	5
12 <sup>th</sup>	4
13 <sup>th</sup>	3
14 <sup>th</sup>	2
15 <sup>th</sup>	1

### 1.28.5

All races will count for the Championship.

### 1.28.6

In the event of a tie in the number of points, the final positions will be decided on the basis of the number of best results in the races (number of first places, number of second places etc.). In the event that there is still a tie then, the date in the Championship at which the highest place was achieved will be taken into account with precedence going to the latest result.

### 1.28.7

The **JuniorGP** World Champion is obliged to attend the FIM Prize Giving Ceremony in accordance with Art. 60.7 of the FIM Sporting Code.

## 1.29 INSTRUCTIONS AND COMMUNICATIONS TO COMPETITORS

### 1.29.1

Instructions may be given by the Race Director to Teams and/or Riders by means of special notices in accordance with the Regulations. Notices must be posted on the official notice board or delivered by electronic means such as email. Posting on the official notice board or via electronic means will be deemed as proof of delivery.

### 1.29.2

All classifications and results of practice and the race, as well as all decisions issued by the officials, must be posted on the official notice board.

Posting on the official notice board will be deemed as proof of delivery and official publication.

### 1.29.3

Any communication from the Race Direction, the Permanent Officials, the Clerk of the Course or the FIM Stewards to a team or rider must be communicated in writing or via electronic means including but not limited to email and official Timekeeping monitors.

Similarly, any communication from a team or rider to the Race Direction, the Permanent Officials, the Clerk of the Course or the FIM Stewards must also be made in writing including electronic means such as email.

### **1.30 TEAM PERSONNEL IN THE PIT LANE**

For safety reasons, the following rules must be strictly respected.

#### **1.30.1**

Team personnel will not be permitted in the pit lane during practices, warm-up and race of another class unless they are making adjustments to their motorcycle.

#### **1.30.2**

The maximum number of team personnel per rider in the working area in front of the pits is limited to 4.

#### **1.30.3**

The maximum number of team personnel per rider on the signalling platform is limited to 4.

#### **1.30.4**

For safety reasons, it is not permitted to start the engine of racing motorcycles inside the pit box (permanent or temporary box) at any time. Engines must be started in the pit lane or other location outside of the pit box or tent.

#### **1.30.5**

For safety reasons it is not permitted to have the motorcycle engine running during any wheel change.

### **1.31 EXTRA DEPOSITS IN CASE OF MOTORCYCLE CONTROL FOLLOWING A TECHNICAL PROTEST**

The technical protests must be submitted together with security deposit according with the Art. 3.4.1.3 of the Disciplinary and Arbitration Code, plus a deposit of 500 €.

If the checked motorcycle fits the stipulated dispositions, the amount will cover the charges of the respondent team.

If the party who makes the protest is the losing party, the deposit shall be paid to the winning party.

If the Race Direction considers the protest is fair, the total amount of the deposit will be returned to the claimant.

### **1.32 EXTRA DEPOSIT FOR FUEL CONTROLS FOLLOWING A PROTEST**

The fuel protests must be submitted together with security deposit according with the Art. 3.4.1.3 of the Disciplinary and Arbitration Code, plus a deposit of 600 €

After the last control:

- the winning party will have its deposit reimbursed.
- the losing party will have to pay the costs of all the controls carried out after deduction of deposits which it has already paid.

### **1.33 SANCTION FOR NON-COMPLIANCE WITH THE FUEL RULES**

A fuel control may be carried out in accordance with Appendix 10 of the Technical Regulations. A rider whose fuel does not correspond to the technical requirements will be sanctioned as follows:

1. Exclusion from the whole event in question independent of the moment of the fuel sampling;
2. Fine of 500 €;
3. Payment of all costs connected to the fuel test(s) for his case.

### **1.34 TRANSPONDERS**

#### **1.34.1 Placing**

Timekeepers must indicate how and where the transponders have to be placed in the motorcycles (Also refer to Technical Regulations Appendix 9).

### 1.35 CALCULATION OF LAPS

As established in Articles 1.24 (end of the race and results) and 1.25 (Interruption of a race):

Laps	75% Art. 1.24	2/3 Art. 1.25
5	3	3
6	4	4
7	5	4
8	6	5
9	6	6
10	7	6
11	8	7
12	9	8
13	9	8
14	10	9
15	11	10
16	12	10
17	12	11
18	13	12
19	14	12
20	15	13
21	15	14
22	16	14
23	17	15
24	18	16
25	18	16
26	19	17
27	20	18
28	21	18
29	21	19
30	22	20



## 2. TECHNICAL REGULATIONS

### EVERYTHING THAT IS NOT AUTHORISED AND PRESCRIBED IN THIS RULE IS STRICTLY FORBIDDEN

### 2.1 INTRODUCTION

#### 2.1.1

The Championship is for motorcycles, i.e. vehicles with two wheels that make one track propelled only by an internal combustion engine, controlled by one rider.

#### 2.1.2

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 motorcycle.

#### 2.1.3

In the Technical Regulations section, the term “Organiser” refers to the Championship Organiser and/or Promoter.

### 2.2 CLASSES

The following classes will be accommodated, which will be designated by engine type:

<u>JuniorGP</u> (ref. Section 2.3)	Up to 250cc. 4-stroke only, single cylinder only, maximum cylinder bore 81 mm.
<u>European Moto2™</u>	Moto2™ Official Engines & <del>Super</del> <b>Stock</b> class also allowed.
<u>European Talent Cup</u>	HONDA NSF 250 (Type MR03) Official Motorcycle



## 2.3 JUNIORGP TECHNICAL REGULATIONS

### 2.3.1 Definition

Up to 250cc. 4-stroke only, single cylinder only, maximum cylinder bore 81 mm - prototypes.

### 2.3.2 Engines

#### 2.3.2.1 Description

1. Engines may operate on the reciprocating piston four stroke principle only. The normal section of each engine cylinder and piston in plan view must be circular. Circular section cylinders & pistons are defined as having less than 5% difference in the diameter measured at any two points.
2. Engines must be normally aspirated.
3. Cubic capacity of the engine will be defined by the swept volume of the cylinder, ie. the area of the bore of the cylinder multiplied by the stroke, multiplied by the number of cylinders.

No tolerance on capacities is permitted.

Engine capacity will be measured at ambient temperature.

4. Maximum engine RPM in acceleration is controlled by the official ECU. The RPM Limiter strategy target is set at 13,500 rpm.
5. Maximum of 1 ignition driver.
6. Pneumatic and/or hydraulic valve systems are not permitted.
7. Valve timing system drive must be by one chain. An intermediate drive gear which rotates on only one axle or rotation centre is allowed in the system (refer to **Appendix 1, JuniorGP** for some examples of permitted systems).

### 2.3.2.2 Electronics

1. The only allowed Electronic Control Unit (ECU) is the Race version of Dellorto DoPE 2.0, DoPE 3.0 and **Do Power 1** ECU. The ECU must use FW 2017 or subsequent. This ECU will have a maximum of one ignition driver and include an engine RPM limiter, and the ECU must remain unmodified in hardware and software. The use of any additional device or module to modify the signals sent from the ECU to the actuators is forbidden. Injectors, bypass systems and ignition must be operated exclusively by the original and unmodified ECU signal.
2. Both “Team” and “Manufacturer” version of the ECU software supplied by the ECU manufacturer can be used by the team to modify the ECU configuration file. The only permitted changes by the team are the setting (tuning) options included in this software.
3. The only allowed dashboards are Dellorto DoDASH and **DoDashEVO**. The dashboard includes a GPS, to be used for data acquisition. The upper edge of the **dashboard** with GPS antenna must not be shielded.
4. Compulsory data acquisition channel list provided by Dellorto must be used. Data acquisition file in format .dop and .dopz. must be supplied to **the Organizer** upon request for technical controls.
5. The datalogger download cable in the wiring harness must be of the approved standard type or one which is completely compatible with it. Details of connector type and connection are detailed in the online documents from the official ECU supplier.\*

\* for all ECU and electronic items identified with this symbol, details are available at the website: <http://www.dellorto.it/>

6. Compulsory Engine Management features:

Refer to **Appendix 2, JuniorGP** for details of compulsory engine management equipment and design, including dashboard, ignition and sensors.

7. Recommended Engine Management features:

Refer to **Appendix 3, JuniorGP** for details of recommended engine management and electronic equipment and design, including timing pattern, O<sup>2</sup> sensor, knock sensor, idle control.

8. There is a compulsory official Initial Mapping and Set Up Procedure for new engines manufacturers to be compatible with the official ECU. Refer to **Appendix 4, JuniorGP** for initial ECU set-up procedure options.

### 2.3.2.3 Fuel system

1. Maximum relative fuel pressure is 5.0 Bar.
2. Variable-length inlet systems are not permitted.
3. Only one throttle control valve is permitted to control the power demand by the rider, which must be controlled exclusively by mechanical means (eg. cable) operated by the rider only. No other powered moving devices (except injectors and the idle control air bypass) are permitted in the inlet tract before the engine intake valve.

No interruption of the mechanical connection between the rider's input and the throttle is allowed.

4. Idle speed (including engine braking) adjustment by means of an air bypass system, controlled by the ECU is allowed. The maximum size of such air bypass is 12 mm equivalent diameter; control systems may include a butterfly-type control valve.
5. Fuel injectors must be located upstream of the engine intake valves.
6. A maximum of 2 fuel injectors per throttle body, and 2 independent fuel injector drivers, controlled by the ECU, is permitted.
7. Other than engine sump breather gases, only air or air/fuel mixture is permitted in the inlet tract and combustion chamber.
8. Only fuel of the current year from the appointed fuel supplier is permitted. This fuel will be available at all official events, and will conform to the FIM JuniorGP World Championship specification.

The use of this fuel without any addition or alteration is mandatory during all events (free practices, qualifying practices, warm-up and races).

9. The fuel on the motorcycle must not be below the prevailing ambient temperature, as measured by the Technical Director. Other than a simple removable fuel tank cover, the use of any device on the motorcycle to artificially decrease the fuel temperature below ambient temperature is forbidden.
10. Any quality of oil may be used.



#### 2.3.2.4 Exhaust

1. Only reciprocating inlet and exhaust valves are permitted, with a maximum of 2 valves each inlet and exhaust.
2. The outlet of the exhaust must not extend behind a line drawn vertically through the edge of the rear tyre.
3. For safety reasons the exposed edge of the exhaust pipe outlet must be rounded to avoid any sharp edges.
4. Variable length exhaust systems are not permitted.
5. Exhaust Gas Recirculation (EGR) systems are not permitted.
6. No moving parts (e.g. valves, baffles...) are allowed in the exhaust systems.
7. The noise limit will be a maximum of 115 dB/A, measured in a static test at 5.500 rpm.

#### 2.3.2.5 Control systems

1. The use of hydraulic and/or pneumatic pressurized powered systems is not allowed. All hydraulic systems on the motorcycle must be powered only by the rider's manual inputs with the following clarifications:
  - Normal hydraulic hand/foot controls such as master/slave cylinders for brakes/clutch are allowed.
  - Oil/water pumps for engine lubricating/cooling are allowed.
  - The use of engine lubricating oil for any purpose other than lubrication and cooling (such as powered hydraulic systems) is not allowed.
2. Variable valve timing and variable valve lift systems, driven by hydraulic and/or electric/electronic systems are not permitted.

Decompression systems which operate only at engine start are permitted, but variable valve timing/valve lift systems which operate other than at engine start, are not permitted.

### 2.3.2.6 Transmission

1. A maximum of six (6) gears ratios is permitted.
2. Twin clutch transmission systems (DSG) are not permitted.
3. Continuously Variable Transmission systems (CVT) are not permitted.
4. Automatic transmission systems are not permitted. Only manually transmissions with gearshifts assisted by a quick-shifter systems are permitted.
5. A maximum of 2 possible gear ratios for each gearbox speed and 3 possible ratios for the primary drive gear is permitted. Teams will be required to declare the gearbox ratios chosen for each gear at the beginning of the season, and only these ratios may be used during the entire season.
6. Gearbox systems must be of the conventional type. That is constant-mesh with engagement dogs as an integral part of the gear, and/or shifters (eg. “dog rings”), actuated by shift forks and shift cam or drum, with only one set of gears engaging at one time. So-called “seamless shift” transmissions (also known as Automated Manual Transmission, Instantaneous Gearchange System, etc.) are not permitted.
7. Electro-mechanical or electro-hydraulic clutch actuating systems are not permitted.

### 2.3.2.7 Materials

NB. “X-based alloy” or “X materials” here means the element X (e.g. Fe, for ferrous or iron-based alloy) must be the most abundant element in the alloy, on a % w/w basis.

1. The use of titanium in the construction of the following parts is forbidden:
  - The frame/chassis, excluding bolts and fasteners (the decision of the Technical Director will be final when determining what constitutes a part of the chassis).
  - The swinging arm, excluding bolts and fasteners.
  - The swinging arm spindles.



- The wheel spindles (for wheel spindles, the use of light alloys is also forbidden).
  - The handlebars.
  - The front suspension inner and outer tubes and bottoms (ie. Axle mounting point).
  - The shock absorber piston shaft and damper tube.
2. The basic structure of the crankshaft and camshafts must be made from ferrous materials, steel or cast iron. Inserts of a different material are allowed in the crankshaft for the sole purpose of balancing.
  3. Pistons, cylinder heads and cylinder blocks may not be composite structures which use carbon or aramid fibre reinforcing materials.
  4. Brake calipers must be made from aluminium materials with a modulus of elasticity no greater than 80 GPa.
  5. All connectors from the brake hose to the brake calipers (front and rear) and the brake master cylinders must have structural components (\*) manufactured from either steel or titanium alloys with a tensile strength no less than 500 Mpa.
    - \* Brass connectors are permitted for rear brake hoses only.
  6. No parts of the motorcycle or engine may be made from metallic materials which have a specific modulus of elasticity greater than 50 GPa/(g/cm<sup>3</sup>).
  7. The use of MMC (Metal Matrix Composite) and FRM (Fibre Reinforced Metal) materials is forbidden.
  8. The following materials restrictions apply:
    - a) Engine crankcases, cylinder blocks and cylinder heads must be made from cast aluminium alloys.
    - b) Pistons must be made from an aluminium alloy.
    - c) Piston pins must be made from ferrous materials.
    - d) Connecting rods, valves and valve springs must be made from either ferrous or titanium-based alloys.
    - e) The use of carbon fibre for the main construction of the swing arm is forbidden.



### 2.3.3 Chassis

Chassis must be a prototype, the design and construction of which is free within the constraints of the FIM JuniorGP Technical Regulations.

#### 2.3.3.1 Weights

1. Minimum total weight of Motorcycle + Rider: **150 kg**.
2. Ballast may be added to achieve the minimum weights.
3. Weight may be checked at the initial technical control, but the main control of weight will be made at the end of practice sessions or at the end of the race. The weight of the motorcycle will be that measured in the form that the motorcycle participated, with fuel tank on and including normal levels of oil and water, and all additional equipment attached to the motorcycle, for example timekeeping transponders, camera equipment, electronic datalogging equipment, etc.

The weight checked will be the total of the rider with full protective clothing plus the weight of the motorcycle. Random weight controls may be carried out during practice in a designated weighing area.

#### 2.3.3.2 Safety and construction criteria

Note: please also refer to **Appendix 11**.

##### 1. Throttle Twist grips

The throttle twist-grip must close automatically when released.

##### 2. Steering

- a) Handlebars must have a width of not less than 450 mm and their end must be solid or rubber covered. The width of the handlebar is defined as the width measured between the outside of the handlebar grips or throttle twist grips.
- b) There must be at least 15 degrees of movement of the steering each side of the centre line.
- c) Stop must be fitted to ensure a clearance of at least 30 mm between the handlebar and the fuel tank frame and/or bodywork when at the extremes of steering lock.



### 3. Footrests

Footrest must have rounded ends with a minimum solid spherical radius of 8 mm.

### 4. Handlebar levers

Handlebar levers must not be longer than 200 mm measured from the pivot point.

### 5. Clearances

- a) The motorcycle, unloaded, must be capable of being leaned at an angle of 50 degrees from the vertical without touching the ground, other than with the tyre.
- b) There must be a clearance of at least 15 mm around the circumference of the tyre at all positions of the motorcycle suspension and all positions of the rear wheel adjustment.

### 6. Breather pipes

Any breather pipe from the engine or gearbox must discharge into the airbox and/or a suitable container.

### 7. Chain Guards

A guard must be fitted in such a way as to prevent trapping between the lower drive chain run and the final drive sprocket at the rear wheel.

### 8. Engine Covers

Lateral engine covers containing oil and which could be in contact with the ground during a crash, should be protected by a second cover made from composite materials, e.g. nylon, carbon or Kevlar®. Plates and/or bars from aluminium or steel are also permitted. All these devices must be designed to be resistant against sudden shocks and abrasion and must be fixed properly and securely.

Such protection is mandatory as directed by the Technical Director.

### 9. Timing transponders

Note: please refer to **Appendix 12**.

## 10. Safety lights

All motorcycles must have a functioning red light mounted at the rear of the machine, to be used in rain or low visibility conditions. The team must ensure that the light is switched on whenever a rain tyre is fitted on the motorcycle.

Lights must comply with the following:

- a) The lighting direction must be parallel to the center line of the motorcycle (running direction) and it must be clearly visible from the rear, at least 15 degrees to both the left and right sides of the center line of the motorcycle.
- b) It must be safely mounted on the very end of seat/rear bodywork and approximately on the center line of the motorcycle. In case of dispute over the mounting position or visibility of the Rear Safety Light, the decision of the Technical Director will be final.
- c) The power output/luminosity must be equivalent to approximately 10-15W (incandescent) or 0.6-1.8W (led).
- d) Able to be switched on and off by the rider when seated on the machine.
- e) Safety light power supply may be separated from the motorcycle main wiring and battery.

### 2.3.3.3 Brakes

1. Motorcycles must have a minimum of one brake on each wheel that is independently operated.
2. Only brake discs of ferrous materials are allowed.
3. The proportion of ceramic composite materials in brakediscs must not exceed 2% by mass. Ceramic materials are defined as inorganic, non metallic solids (e.g.  $\text{Al}_2\text{O}_3$ ,  $\text{SiC}$ ,  $\text{B}_4\text{C}$ ,  $\text{Ti}_5\text{Si}_3$ ,  $\text{SiO}_2$ ,  $\text{Si}_3\text{N}_4$ ).

Refer to Art. 2.3.2.7. 4) and 5) for other permitted materials in brake component construction.

4. Motorcycles must be equipped with brake lever protection, intended to protect the handlebar brake lever(s) from being accidentally activated in case of collision with another machine. Acceptable protection includes the fairing extending sufficiently to cover the brake lever, as viewed from the front.

Such devices must be strong enough to function effectively and designed so that there is no risk for the rider to be injured or trapped by it, and it must not be considered a dangerous fitting (at the sole discretion of the Technical Director).

In case the brake lever protection is attached to any part of the braking system (e.g. brake master cylinder), then the brake system manufacturer must officially confirm in writing to the Technical Director that the device does not interfere with the proper brake operation.

5. Anti-lock Brake Systems (ABS) are not permitted. Braking inputs must be powered and controlled solely by the rider's manual inputs. Conventional hydraulic hand/foot controls such as master/slave cylinders for brake systems are allowed (refer also to Art. 2.3.2.5 Control Systems) but no increase or control of brake pressure by electronic or mechanical systems apart from the rider's direct manual inputs are allowed. Specifically, brake systems designed to prevent the wheel from locking when the rider applies the brake are forbidden.

#### **2.3.3.4 Suspensions and dampers**

1. Electric/electronic controlled suspension, ride height and steering damper systems are not allowed. Adjustments to the suspension and steering damper systems may only be made by manual human inputs and mechanical/hydraulic adjusters.

#### **2.3.3.5 Fuel tanks**

1. Fuel caps must be leak proof and have a positive closing device.
2. Fuel tank breather pipes must include a non-return valve. Fuel tank breather pipes must discharge into a suitable container or containers, one per motorcycle with a minimum capacity of 200cc.
3. Fuel tanks of all construction types must be filled with fire retardant material or be lined with a fuel cell bladder.
4. Except for the case that a fuel tank is fixed on the chassis with bolts, all fuel lines from the fuel tank to the engine/injector system should have a self sealing breakaway valve. This valve must separate at less than 50% of the load required to break any part of the fuel line or fitting or to pull it out of the fuel tank.



5. Refuelling may only be carried out from an unpressurised container, and the motorcycle fuel tank may not be artificially pressurised above atmospheric pressure at any time. It is allowed to vent the fuel tank to the atmosphere via the airbox in order to equalise pressure in the airbox and fuel tank.

### 2.3.3.7 Bodywork

Note: please also refer to **Appendix 11**.

1. The windscreen edge and the edges of all other exposed parts of the streamlining must be rounded.
2. The maximum width of bodywork must not exceed 600 mm. The width of the seat or anything to its rear shall not be more than 450 mm (exhaust pipes excepted).
3. Bodywork must not extend more than 150 mm beyond a line drawn vertically from the center of the front wheel spindle and a line drawn vertically at the rearward edge of the rear tyre. The suspension should be fully extended when the measurement is taken.
4. When viewed from the side, it must be possible to see:
  - a) At least 180 degrees of the rear wheel rim.
  - b) The whole of the front rim, other than the part obscured by the mudguard, forks, brake parts or removable air-intake.
  - c) The rider, seated in a normal position with the exception of the forearms.

Notes: No transparent material may be used to circumvent the above rules. Covers for brake parts or wheels are not considered to be bodywork obstructing the view of wheel rims in regard to the above rules.

5. No part of the motorcycle may be behind a line drawn vertically at the edge of the rear tyre.
6. The seat unit shall have a maximum height of the (approximately) vertical section behind the rider's seating position of 150 mm. The measurement will be taken at a 90° angle to the upper surface of the flat base at the rider's seating position, excluding any seat pad or covering.

7. Mudguards are not compulsory. When fitted, front mudguards must not extend:
  - a) In front of a line drawn upwards and forwards at 45 degrees from a horizontal line through the front wheel spindle.
  - b) Below a line drawn horizontally and to the rear of the front wheel spindle.

The mudguard mounts/brackets and fork-leg covers, close to the suspension leg and wheel spindle, and brake disc covers are not considered part of the mudguard.

8. Devices or shapes protruding from the fairing or bodywork and not integrated in the body streamlining (eg. wings, fins, bulges, etc.), that may provide an aerodynamic effect (eg. providing downforce, disrupting aerodynamic wake, etc.) are not allowed.

The Technical Director will be the sole judge of whether a device or fairing design falls into the above definition.

Moving aerodynamic devices are prohibited.

9. The lower fairing has to be constructed to hold, in case of an engine breakdown, at least half of the total oil and engine coolant capacity used in the engine (minimum 2.5 liters). This measurement should be taken with the fairing fitted to the motorcycle, whilst both wheels are on the ground and the motorcycle is upright at 90° to the horizontal.

The lower fairing may incorporate a maximum of two holes of 25 mm. These holes must remain closed in dry conditions and must be only opened in wet race conditions.

#### **2.3.3.8 Wheel rims**

1. The only permitted wheel rim sizes are:  
Front 2.50" x 17"  
Rear 3.50" x 17"
2. Composite construction wheels (including carbon fibre reinforced, glass fibre reinforced, and similar) are not permitted. The permitted materials for wheel construction are magnesium and aluminium alloys.

### 2.3.3.9 Tyre restrictions

1. Only tyres from the official tyre supplier may be used and each team must sign a contract.

The quantity, specification and allocation of tyres will be determined by the official tyre supplier in consultation, and by agreement with, the Organisers and the Technical Director. Due to ongoing technical developments and changing conditions, the quantity, specification and allocation of tyres may be varied from time to time by mutual agreement.

Only homologated tyres in each event are permitted.

The use of any device on the wheel to adjust the tyre pressure whilst on track is prohibited. The Technical Stewards and/or the official tyre supplier may perform random controls during the qualifying practices and races.

2. The maximum number of rear tyres allowed to use during the qualifying practice are THREE (3). Only the rear slick tyres need to be marked with a tyre sticker.

The wet tyres will not need to be marked with a tyre sticker and will not be considered in the total number of tyres available for use.

A maximum of ONE (1) rear slick tyre per race may be used. Only the race rear slick tyre shall be marked with a code differentiable qualifying tyres.

The wet tyres will not need to be marked with a tyre sticker and will not be considered in the total number of tyres available for use.

During the preliminary technical inspection, **these stickers** will be delivered to the teams. Each team will be responsible of marking their tyres.

If the riders are shown a red flag during the practice, or the race/s, the Permanent Race Direction is allowed to authorize the use of a supplementary tyre. All checked tyres must be easily identifiable with a colour marking or a numerical system.

In case of a dispute, the Technical Director will be the sole judge to take the appropriate decision.



### 2.3.3.10 Numbers and backgrounds

1. The front plate must be located in the middle of the fairing's front or on the side facing the official time keeping staff.
2. Rear or side numbers are optional. If they are fitted, must govern the same rules as the front.
3. The dimensions for the number plates must be: 140 mm x 25 mm minimum. Numbers from 1 to 9 can be wider. Two-digit numbers must have a separation (min. 10 mm) between digits so the background colour is visible between digits. Only numbers between 1 and 99 will be admitted.
4. Backgrounds must be of one single colour over an area large enough to provide a minimum clear area of 25 mm around the numbers.
5. Numbers cannot overlap.
6. In case of a dispute concerning the legibility of numbers, the decision of the Technical Director will be final.

The numbers and backgrounds will be as follows:

	Background	Number
<b>JuniorGP</b>	Black	White

### 2.3.4 General

#### 2.3.4.1 Fuel and oil

Refer to Appendix 13.

#### 2.3.4.2 Rider's Safety Equipment

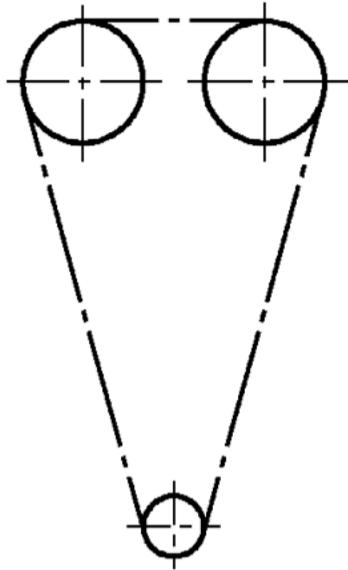
Refer to Appendix 14.

#### 2.3.4.3 Procedures for Technical Control

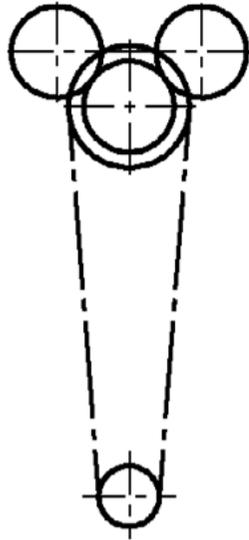
Refer to Appendix 15.



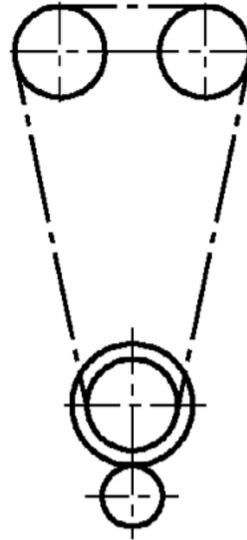
## JuniorGP Appendix 1



A) Simple chain drive



B) Chain drive + upper gear



C) Chain drive + lower gear



## JuniorGP Appendix 2

### Compulsory Engine Management features

Ignition	Must be of the inductive type. Maximum ignition coil current must be less than 30A
Throttle Position Sensor	Voltage output must be 0 - 5V
Crankshaft Pickup Sensor	Must be of the inductive type. Voltage at 300 rpm must be at least 0.8V, and maximum voltage less than 100V
Camshaft Pickup Sensor (if any)	Must be of the Hall-effect type. “0” voltage must be less than 0.5V, “1” voltage must be 4.5V ± 0.5V
Battery	Is compulsory. Must be in the 8 - 16.5V range (measured at the voltage acquisition channel) to ensure proper engine management function
Datalogger Download Connector	Must be type: Lemo PEN.1F.308.XLM or one completely compatible with this. Connected as detailed in Dell’Orto online documentation, <a href="http://www.dellorto.it/">http://www.dellorto.it/</a>
UEGO O <sup>2</sup> Sensor	Bosch LSU 4.9
Dashboard	Dell’Orto DoDash or DoDashEVO. Refer to website <a href="http://www.dellorto.it/">http://www.dellorto.it/</a>



## JuniorGP Appendix 3

### Recommended Engine Management features

(NB. Different design choices must be agreed separately with the official ECU supplier)

Idle Speed Stepper Motor	Dell'Orto. Refer to website <a href="http://www.dellorto.it/">http://www.dellorto.it/</a>
Timing Option 1 Crankshaft Pickup only	Crankshaft timing pattern is “n-2” type, where “n” can be between 12 and 60. For optimum performance it is recommended that the first tooth after the missing teeth corresponds to TDC (top dead centre)
Timing Option 2 Crankshaft and Camshaft Pickups	Crankshaft timing wheel has between 12 and 60 teeth, and the camshaft timing pattern is one single tooth
ECU Mounting	Dell'Orto ECU Safety Fixing Kit. Refer to website <a href="http://www.dellorto.it/">http://www.dellorto.it/</a>
Ignition Module	Dell'Orto IGBT Ignition Module. Refer to website <a href="http://www.dellorto.it/">http://www.dellorto.it/</a>



## JuniorGP Appendix 4

### Initial ECU Mapping and Set Up Procedure

The official ECU start-up procedure is to ensure manufacturers will be supplied with the official ECU with an initial map to suit their engine in time for the first official **JuniorGP** tests of the season. The initial map is intended for safe and trouble-free engine function, and not maximum performance. Performance mapping is the responsibility of the engine manufacturer or the Team.

NB. Detailed information on engine control strategies for **JuniorGP** engine manufacturers is available from the ECU supplier, upon completion of a non-disclosure agreement. Refer to the website: <http://www.dellorto.it/>

For an engine design to be eligible for the **JuniorGP** class, one of the following two options for the ECU start-up procedure must be followed:

<p><b>OPTION 1</b></p> <p>Initial Mapping and Set Up by ECU Supplier</p>	<p>Manufacturers will be guaranteed supply of the official ECU with initial maps to suit their engine before the first <b>JuniorGP</b> official tests of the season, provided that:</p>
<p>By October 15<sup>th</sup> of the year preceding first entry in <b>JuniorGP</b></p>	<ol style="list-style-type: none"> <li>1. the completed <b>JuniorGP</b> Engine Manufacturer Entry Form is submitted to the organisers. (form available at <a href="https://www.fim-moto.com/fileadmin/library/Moto3_Manufacturers_Entry_form_2015_pdf_form.pdf">https://www.fim-moto.com/fileadmin/library/Moto3_Manufacturers_Entry_form_2015_pdf_form.pdf</a>)</li> <li>2. two complete working engines (including throttle body, idle bypass actuator, transmission, sensors, spark plugs, wiring harness with ECU connector) and one complete airbox, cooling system and exhaust are delivered to the ECU supplier for mapping tests. Engines and parts will be returned by January of the following year.</li> <li>3. a deposit of 10,000 Euros is lodged with the official ECU supplier.</li> </ol>

JuniorGP



<p><b>OPTION 2</b> Initial Mapping and Set Up by Engine Manufacturer</p>	<p>Engine Manufacturers can make an agreement with the ECU supplier to carry out their own Initial mapping procedure, with the following conditions:</p>
<p><b>At a schedule mutually agreed between ECU Supplier and Engine Manufacturer</b></p>	<ol style="list-style-type: none"> <li>1. the completed Moto3™ JuniorGP Engine Manufacturer Entry Form is submitted to the organisers. (form available at <a href="https://www.fim-moto.com/fileadmin/library/Moto3ManufacturersEntryform2015pdfform.pdf">https://www.fim-moto.com/fileadmin/library/Moto3ManufacturersEntryform2015pdfform.pdf</a>)</li> <li>2. the ECU will be initially delivered to the engine manufacturer by the ECU supplier, and the ECU supplier representative must be present to initiate setup of the mapping process.</li> <li>3. the organisers and the ECU supplier provide no guarantee of any completion date for the mapping process.</li> <li>4. there is no set deadline for this Option 2 procedure, but Option 1 takes precedence, and requests for Option 2 attendance will be processed at a time determined by the ECU Supplier.</li> </ol>

## MOTO2™ EUROPEAN CHAMPIONSHIP TECHNICAL SPECIFICATIONS

### Manufacture engine motorcycle: Triumph Motorcycles Ltd. Model: 765 HM2

**EVERYTHING THAT IS NOT AUTHORISED AND PRESCRIBED IN THE POINTS 2.5.3.1, 2.5.3.2, 2.5.3.5, 2.5.3.6 & 2.5.3.9 IS STRICTLY FORBIDDEN.**

## 2.5 MOTO2™ CLASS TECHNICAL REGULATIONS

### 2.5.3 Engine

#### 2.5.3.1 Engine Description

1. Engines may operate on the reciprocating piston four stroke principle only.

The normal section of each engine cylinder and piston in plan view must be circular. Circular section cylinders & pistons are defined as having less than 5% difference in the diameter measured at any two points.

2. Engines must be normally aspirated.
3. Cubic capacity of the engine will be defined by the swept volume of the cylinder, ie. the area of the bore of the cylinder multiplied by the stroke, multiplied by the number of cylinders.

No tolerance on capacities is permitted.

Engine capacity will be measured at ambient temperature.

#### 2.5.3.2 Moto2™ Engine Supply

1. Only sealed engines from the Engine Supplier are allowed to be used during Qualifying Practices, Warm-Up and Race(s). The term Engine Supplier shall refer to the engine producer and/or to the company nominated to perform such functions as engine assembling and as dealer.
2. The engine could be sealed by the Technical Director or his/her staff during the event. These seals must be respected until the end of the event or the moment determined by them.
3. Security seals attached by the Engine Supplier may not be removed or broken and the team may not open the engine.

4. Is the sole responsibility of the teams to perform maintenance of the engine which does not involve removal of security seals. A Maintenance Schedule will be delivered to each engine buyer.

#### Engine Definition, Specification and Modification

5.
  - i) Use of the complete engine is mandatory, and it may not be modified in any way except as specifically described in these regulations, or as directed by the Technical Director. The complete engine is denominated HM2. In the case of dispute over modifications, the decision of the Technical Director will be final.
  - ii) The engine design and specification will be determined by the Engine Supplier in consultation with the Organisers. The engine design and specification may be changed at any time with the agreement of both the Engine Supplier and the series Organiser.
  - iii) The Engine Supplier may change the specification of individual parts from time to time, as is normal to improve reliability and function.
  - vi) The complete engine ('engine' in these regulations) is defined as the supplied engine cases, covers and everything contained within, and including all external parts supplied by the Engine Supplier, including but not limited to:
    - a) Fuel system including airbox, air filter, fuel pump & regulator, throttle bodies, intake manifolds, air intake funnels, fuel injectors, fuel delivery lines hoses and breathers.
    - b) Electrical system including generator, ignition coils.
    - c) Lubrication system including oil filter, oil cooler, oil pressure switch.
6. To ensure reliability and performance, it is not recommended any changes to the engine. However, at the Team's risk the following items may be replaced and/or modified:
  - a) Coolant hoses and fittings may be changed to suit individual radiator designs. Where an inlet/outlet pipe fitting is changed it must have the same internal diameter as the original part.
  - b) The fuel delivery line between the fuel pump and the primary injectors may be modified to adjust the length and/or to fit a connector in-line.



7. The following external items may not be replaced, removed or modified, except if replaced with an original part due to malfunction or damage (as authorised by the Technical Director):
  - a) Gearbox position sensor
  - b) Oil cooler (heat exchanger)
  - c) Oil filter
  - d) Oil pressure sensor
  - e) Gearbox output speed sensor
  - f) Water temperature sensor
  - g) Electrical cables and connectors supplied as part of the engine

#### Cooling System

9. Design and construction of the cooling system is free, provided it complies with Art. 2.5.3.2.6, Art. 2.5.3.2.7 and Art. 2.5.3.2.12 ensuring that the engine meets the operating parameters specified by the Engine Supplier (refer to the Appendix 9, Moto2™).
10. The standard engine oil cooler is mandatory, and additional oil coolers are not permitted.

#### Engine Use

11. The engine can be used freely at the championship events or private tests, at discretion of the team.
12. The engine must be used at all times respecting the range of operating parameters provided by the Engine Supplier, and avoiding deliberate misuse. Refer to the Appendix 9, Moto2™.

#### **2.5.3.5 Electronics**

1. Tyre temperature/pressure sensors are permitted.

#### Moto2™ Ignition and Electronics

2. Only the official Electronic ignition/fuel injection Control Unit (ECU, with built-in Inertial Measurement Unit (IMU)) and any ECU used on a Moto2™ machine at event must be registered with the Technical Director.

This ECU must remain unmodified in hardware and software as delivered by the ECU Supplier, with the exception of the normal tuning adjustments allowed only by the standard software “Setting Tool” supplied. The use of any additional device or module to modify the signals sent from the ECU to the actuators is forbidden. Injectors, bypass systems and ignition must be operated exclusively by the original and unmodified ECU signal.

3. The Technical Director may inspect all ECU hardware and software at any time, including access to all stored information. The Technical Director may require the team to change the ECU on any machine for another identical standard one at any time.
4. Only the standard harness, as delivered by the ECU Supplier, is allowed, and connection of the components listed in Art. 2.5.3.2.5 and Art. 2.5.3.2.7 is mandatory.

#### Datalogger

5. The Data Acquisition may be added. If added, it has to be the one sold or adapted by the ECU Supplier. Refer to the Appendix 8, Moto2™. The Technical Director could, at its discretion, download and analyse the files of the Datalogger.
6. Other than the use of the official ECU, Dashboard, Datalogger, Switch Panel, Gearshift load cell, there are additional channels available for specific sensors.

No other sensors are permitted on the machine at official Moto2™ events, and all free listed sensors are subject to the approval of the Technical Director. Refer to the Appendix 8, Moto2™.

7. The throttle control valve must be operated exclusively by the ECU software, no other controls or strategies are permitted.

### **2.5.3.6 Fuel System**

#### Moto2™ class fuel system

1. Use of the fuel system (as described in Art. 2.5.3.2.5.vi) a) from the Engine Supplier is mandatory, and it must remain standard, as delivered by the Engine Supplier. The only modifications permitted are those specifically described in these regulations. The Technical Director may require the team to exchange any parts of the fuel system for another standard part, at any time.



2. Fuel Tank Design and construction of the fuel tank is free, within the constraints of the FIM Grand Prix Regulations, Art. 2.5.4.5. There are no capacity restrictions.
3. Fuel Delivery Hoses: Fuel delivery hose fittings must remain standard, as supplied. However, it is permitted to fit quick-connectors (e.g. “dry-break” connectors) in the fuel lines.
4. Airbox: Only the standard airbox supplied by the Engine Supplier (including air filter) may be used. No modifications, alterations or additions to this airbox are allowed, except as described in Art. 2.5.3.6.11 below).

The main air pressure sensor must be fitted in its original location. Refer to the Appendix 6, Moto2™.

The secondary air pressure sensor must be fitted in the location approved by the ECU Supplier.

5. To ensure correct performance it is not recommend any change to the airbox. However, at the risk of the team, the following changes are allowed:
  - a) The transition duct; airbox to headstock - ahead of the air filter, may be changed to suit individual chassis designs.
  - b) A catch-tank may be fitted in the engine breather between the cam cover and airbox. The catch tank is solely for the purpose of collecting engine fluids, no other functions (such as pressure modification) are permitted and breather connections may only be directly between the cam cover, catch tank and airbox. The catch tank and connections must be visible for inspection at all times (that is, not permanently built into the chassis or other parts).
  - c) A heat protection can be attached to the airbox.

### 2.5.3.7 Exhaust

1. The outlet of the exhaust must not extend behind a line drawn vertically through the edge of the rear tyre.
2. For safety reasons the exposed edge of the exhaust pipe outlet must be rounded to avoid any sharp edges.
3. Variable length exhaust systems are not permitted.
4. Exhaust Gas Recirculation (EGR) systems are not permitted.

### Moto2™ class exhaust:

5. The design and construction of the Moto2™ exhaust system must conform to the Engine Supplier's specified layout, respecting all dimensions and tolerances on pipe lengths and diameters. The specified dimensions from the Engine Supplier are shown in the Appendix 7, Moto2™.
6. The Linear Air-Fuel sensor - will be located 125 mm after the final 3 into 1 junction of the exhaust, with a tolerance of 20 mm (minimum 105 mm, maximum 145 mm after the 3 into 1 junction). Refer to the Appendix 7, Moto2™.

#### **2.5.3.8 Control Systems**

1. The use of hydraulic and/or pneumatic pressurized powered systems is not allowed. All hydraulic systems on the motorcycle must be powered only by the rider's manual inputs with the following clarifications:
  - Normal hydraulic hand/foot controls such as master/slave cylinders for brakes/clutch are allowed.
  - Oil/water pumps for engine lubricating/cooling are allowed.
  - The use of engine lubricating oil for any purpose other than lubrication and cooling (such as powered hydraulic systems) is not allowed.
2. Variable valve timing and variable valve lift systems, driven by hydraulic and/or electric/electronic systems are not permitted.

#### **2.5.3.9 Transmission**

1. A maximum of six gear ratios is permitted. Only the standard gearbox supplied by the Engine Supplier may be used. No modifications, alterations or additions to the gearbox are allowed.
2. Twin clutch transmission systems (DSG) are not permitted.
3. Continuously Variable Transmission systems (CVT) are not permitted.
4. Automatic transmission systems are not permitted. Manual transmissions with gearshifts assisted by quick-shifter systems are permitted. No other electronic quick-shifting strategies are allowed, any additional electric/electronic devices that are in any way interfering with the quick-shifting are not permitted.

### Moto2™ class Clutch and Transmission

5. Only the official racing slipper clutch (back-torque-limiter) and clutch cover may be used, without modification, at all official Moto2™ events.
6. It is the team's responsibility to fit, adjust and maintain all parts of the clutch.
7. Only the official Quick-Shifter load cell is permitted to be used. Refer to the Appendix 8, Moto2™.

#### **2.5.3.10 Materials**

NB. “X-based alloy” or “X materials” here means the element X (e.g. Fe, for ferrous or iron-based alloy) must be the most abundant element in the alloy, on a % w/w basis.

1. The use of titanium in the construction of the following parts is forbidden:
  - The frame / chassis, excluding bolts and fasteners (the decision of the Technical Director will be final when determining what constitutes a part of the chassis).
  - The swinging arm, excluding bolts and fasteners.
  - The swinging arm spindles.
  - The wheel spindles (for wheels spindles, the use of light alloys is also forbidden).
  - The handlebars.
  - The front suspension inner and outer tubes and bottoms (ie. axle mounting point).
  - The shock absorber piston shaft and damper tube.
2. The basic structure of the crankshaft and camshafts must be made from ferrous materials, steel or cast iron. Inserts of a different material are allowed in the crankshaft for the sole purpose of balancing.
3. Pistons, cylinder heads and cylinder blocks may not be composite structures which use carbon or aramid fibre reinforcing materials.
4. Brake calipers must be made from aluminium materials with a modulus of elasticity no greater than 80 Gpa.



5. All connectors from the brake hose to the brake calipers (front and rear) and the brake master cylinders must have structural components (\*) manufactured from either steel or titanium alloys with a tensile strength no less than 500 Mpa.

\* Brass connectors are permitted for rear brake hoses only.

6. No parts of the motorcycle or engine may be made from metallic materials which have a specific modulus of elasticity greater than 50 Gpa / (g/cm<sup>3</sup>).
7. The use of MMC (Metal Matrix Composite) and FRM (Fibre Reinforced Metal) materials is forbidden.

## 2.5.4 Chassis

### 2.5.4.1 Weights

1. The following are the minimum weights permitted:

Moto2™ motorcycle + rider **(if the rider uses airbag):** 217 kg

**Moto2™ motorcycle + rider (if the rider doesn't use airbag): 219 kg**

2. Ballast may be added to achieve the minimum weights.
3. Weight may be checked at the initial technical control, but the main control of weight will be made during practice sessions or at the end of the race. The weight of the motorcycle will be that measured in the form that the motorcycle participated, with fuel tank on and including normal levels of oil and water, and all additional equipment attached to the motorcycle, for example timekeeping transponders, electronic datalogging equipment etc.

For the Moto2™ class the weight checked will be the total of the rider with full protective clothing plus the weight of the motorcycle. Random weight controls may be carried out during practice in a designated weighing area.

### 2.5.4.2 Safety and Construction criteria

1. Chassis Design and Construction

The chassis must be a prototype, the design and construction of which is free within the constraints of the FIM Grand Prix Technical Regulations. The main frame, swingarm, fuel tank, seat and fairing/bodywork from a non-prototype (ie. series production road-homologated) motorcycle may not be used.

## 2. Throttle Twist grips

Throttle twistgrips must close automatically when released. They must also be approved by the Technical Director. Refer to the Appendix 8, Moto2™.

## 3. Steering (Refer to Appendix 11)

- a) Handlebars must have a width of not less than 450 mm and their ends must be solid or rubber covered. The width of the handlebar is defined as the width measured between the outside of the handlebar grips or throttle twist grips.
- b) There must be at least 15 degrees of movement of the steering each side of the centre line.
- c) Stops must be fitted to ensure a clearance of at least 30mm between the handlebar and the fuel tank frame and/or bodywork when at the extremes of steering lock.

## 4. Footrests

Footrests must have rounded ends with a minimum solid spherical radius of 8 mm.

## 5. Handlebar Levers

Levers must not be longer than 200 mm measured from the pivot point.

## 6. Clearances

- a) The motorcycle, unloaded, must be capable of being leaned at an angle of 50 degrees from the vertical without touching the ground, other than with the tyre.
- b) There must be a clearance of at least 15 mm around the circumference of the tyre at all positions of the motorcycle suspension and all positions of the rear wheel adjustment.

## 7. Breather Pipes

Any breather pipe from the engine or gearbox must discharge into the airbox and/or a suitable container.

## 8. Chain Guards

A guard must be fitted in such a way as to prevent trapping between the lower drive chain run and the final drive sprocket at the rear wheel.

## 9. Engine Covers

Lateral engine covers containing oil and which could be in contact with the ground during a crash, should be protected by a second cover made from composite materials, e.g. nylon, carbon or Kevlar®. Plates and/or bars from aluminium or steel are also permitted. All these devices must be designed to be resistant against sudden shocks and abrasion and must be fixed properly and securely.

Such protection is mandatory in the Moto2™ class.

## 10. Timing Transponders

- a) All machines must have a correctly-positioned timekeeping transponder, of the correct type for the class entered. The transponder must be supplied or approved by the official Timekeeper and fixed to the motorcycle in the position advised by Timekeeping and approved by the Technical Director.
- b) The transponder must be supplied with power at all times the machine is in pit lane or on the track, including when the engine is switched off by the rider. The position and approved models are described in Appendix 9.
- d) Transponders must be fully functional on the motorcycle as required by the Organiser, including wiring, power supply, and inputs / outputs for data or signals purposes.

## 11. Onboard Cameras

- a) Only cameras approved by the Promotor and/or race Direction are allowed. The Technical Director and/or their crew must supervise their installation.

## 12. Safety Lights

All motorcycles must have a functioning red light mounted at the rear of the machine to be used in rain or low visibility conditions as instructed by Race Direction. The team must ensure that the light is switched on whenever a rain tyre is fitted on the motorcycle.

Lights must comply with the following:

- a) lighting direction must be parallel to the machine centre line (motorcycle running direction), and clearly visible from the rear at least 15 degrees to both left and right sides of the machine centre line.

- b) mounted on the seat/rear bodywork approximately on the machine centre line, in a position approved by the Technical Director. In case of dispute over the mounting position or visibility, the decision of the Technical Director will be final.
- c) power output/luminosity equivalent to approximately: 10 - 15W (incandescent), 0.6 - 1.8 W (LED).
- d) safety light power supply may be separated from the motorcycle main wiring and battery.

### 2.5.4.3 Brakes

1. Motorcycles must have a minimum of one brake on each wheel that is independently operated.
2. Only brake discs of ferrous materials are allowed.
3. The proportion of ceramic composite materials in brake discs must not exceed 2% by mass.

Ceramic materials are defined as inorganic, non-metallic solids (e.g.  $\text{Al}_2\text{O}_3$ ,  $\text{SiC}$ ,  $\text{B}_4\text{C}$ ,  $\text{Ti}_5\text{Si}_3$ ,  $\text{SiO}_2$ ,  $\text{Si}_3\text{N}_4$ ).

Refer to Art. 2.5.3.10. 4) and 5) for other permitted materials in brake component construction.

4. Motorcycles must be equipped with brake lever protection, intended to protect the handlebar brake lever(s) from being accidentally activated in case of collision with another machine. Acceptable protection includes the fairing extending sufficiently to cover the brake lever, as viewed from the front.

Such devices must be strong enough to function effectively and designed so that there is no risk for the rider to be injured or trapped by it, and it must not be considered a dangerous fitting (at the sole discretion of the Technical Director).

In case the brake lever protection is attached to any part of the braking system (e.g. brake master cylinder), then the brake system manufacturer must officially confirm in writing to the Technical Director that the device does not interfere with the proper brake operation.

5. Anti-lock Brake Systems (ABS) are not permitted. Braking inputs must be powered and controlled solely by the rider's manual inputs. Conventional hydraulic hand/foot controls such as master/slave cylinders for brake systems are allowed (refer also to Art. 2.5.3.8 Control Systems) but no increase or control of brake pressure by electronic or mechanical systems apart from the rider's direct manual inputs are allowed. Specifically, brake systems designed to prevent the wheel from locking when the rider applies the brake are forbidden.

#### 2.5.4.4 Suspension and Dampers

1. Electric/electronic controlled suspension, ride height and steering damper systems are not allowed. Adjustments to the suspension and steering damper systems may only be made by manual human inputs and mechanical/hydraulic adjusters.

The use of any device that modifies or adjusts the motorcycle's ride height while it is moving is forbidden, with the only exception of mechanical/hydraulic passive suspension springs preload adjusters, e.g. front fork cap mechanical manual preload adjusting knobs, shock absorber spring remote mechanical/hydraulic preload adjusters operated by a manual knob.

In determining the legality of any such device, the judgement of the Technical Director will be final.

#### 2.5.4.5 Fuel Tanks

1. Fuel caps must be leak proof and have a positive closing device.
2. Fuel tank breather pipes must include a non-return valve. Fuel tank breather pipes must discharge into a suitable container or containers, with a minimum capacity of 200cc.
3. Fuel tanks of all construction types must be filled with fire retardant material or be lined with a fuel cell bladder.

In all classes, fuel tanks made of non-metallic composite materials (carbon fibre, aramid fibre, glass fibre, etc.) must be fitted with a fuel cell bladder, or have passed the appropriate FIM test standards for composite material fuel tanks as described in the FIM Fuel Tank Test Procedure for fuel tank approval.

Such composite fuel tanks without a fuel cell bladder must bear a label certifying conformity with FIM Fuel Tank Test Standards. Such labels must include the fuel tank manufacturer's name, date of tank manufacture, and name of testing laboratory.

Each manufacturer is requested to inform the FIM/CCR Secretariat of its fuel tank model(s) which have passed the FIM test standards, together with a copy of the fuel tank label.

Full details of the FIM Fuel Tank Test Standards and Procedures are available from the FIM (<http://www.fim-moto.com/en/library/>).

Fuel cell bladders must conform to or exceed the specification FIM/FCB-2005. Full details of this standard are available from the FIM.

4. Except for the case that a fuel tank is fixed on the chassis with bolts, all fuel lines from the fuel tank to the engine/injector system should have a self sealing breakaway valve. This valve must separate at less than 50% of the load required to break any part of the fuel line or fitting or to pull it out of the fuel tank.
5. Refuelling may only be carried out from an unpressurised container, and the motorcycle fuel tank may not be artificially pressurised above atmospheric pressure at any time. It is allowed to vent the fuel tank to the atmosphere via the airbox in order to equalise pressure in the airbox and fuel tank.

#### 2.5.4.7 Bodywork

Refer to the Appendix 11: Fig.7, Fig.8, Fig.9

1. The windscreen edge and the edges of all other exposed parts of the streamlining must be rounded.
2. The maximum width of bodywork must not exceed 600 mm. The width of the seat or anything to its rear shall not be more than 450 mm (exhaust pipes excepted).
3. Bodywork must not extend more than 150 mm beyond a line drawn vertically from the centre of the front wheel spindle and a line drawn vertically at the rearward edge of the rear tyre. The suspension should be fully extended when the measurement is taken.

4. When viewed from the side, it must be possible to see:
  - a) At least 180 degrees of the rear wheel rim.
  - b) The whole of the front rim, other than the part obscured by the mudguard, forks, brake parts or removable air-intake.
  - c) The rider, seated in a normal position with the exception of the forearms.

Notes: No transparent material may be used to circumvent the above rules. Covers for brake parts or wheels are not considered to be bodywork obstructing the view of wheel rims in regard to the above rules.

5. No part of the motorcycle may be behind a line drawn vertically at the edge of the rear tyre.
6. The seat unit shall have a maximum height of the (approximately) vertical section behind the rider's seating position of 150 mm. The measurement will be taken at a 90° angle to the upper surface of the flat base at the rider's seating position, excluding any seat pad or covering. Any on-board camera/antenna mounted on the seat unit is not included in this measurement.
7. Mudguards are not compulsory. When fitted, front mudguards must not extend:
  - a) Front leading edge: In front of a line drawn upwards and forwards at 45 degrees from a horizontal line through the front wheel spindle.
  - b) Rear trailing edge: Below a line drawn horizontally through the front wheel spindle.

The mudguard mounts/brackets and fork-leg covers, close to the suspension leg and wheel spindle, and brake disc covers are not considered part of the mudguard.

Devices or shapes protruding from the fairing or bodywork and not integrated in the body streamlining (eg. wings, fins, bulges, etc.) that may provide an aerodynamic effect (eg. providing downforce, disrupting aerodynamic wake, etc.) are not allowed.

However, for safety reasons it is permitted to add ducts to the front fender for the sole purpose of cooling the brake system including discs. All ducts must be preapproved by the Technical Director before being used on track and the decision of the Technical Director will be final when determining what constitutes an approved cooling duct.

The Technical Director will be the sole judge of whether a device or fairing design falls into the above definition.

Moving aerodynamic devices are prohibited.

8. The lower fairing has to be constructed to hold, in case of an engine breakdown, at least half of the total oil and engine coolant capacity used in the engine (minimum 5 litres for Moto2™). This measurement should be taken with the fairing fitted to the motorcycle, whilst both wheels are on the ground and the motorcycle is upright at 90° to the horizontal. The lower fairing may incorporate a maximum of two holes of 25 mm. These holes must remain closed in dry conditions and must be only opened in wet race conditions, as declared by the Race Director.

#### 2.5.4.8 Wheel Rims

1. Permitted wheel rim sizes are as follows:

	Front	Rear
Moto2™	3.75" x 17" & 3.5" x 17"	6.00" x 17" only

2. In all classes, composite construction wheels (including carbon fibre reinforced, glass fibre reinforced, and similar) are not permitted. The permitted materials for wheel construction are magnesium and aluminium alloys.
3. All wheels must conform to the requirements published in the document "FIM Requirements for Grand Prix Wheels 2018" and be certified by the wheel manufacturer. Wheels approved before the end of 2017 under the previous FIM standard (2015) are permitted to be used until the end of their service life.

(refer to <http://www.fim-moto.com/en/library/> Motorcycle Parts Testing Standards)

The following procedures will apply:

- A sample wheel of each different design or model must pass all the tests described in the FIM requirements document.
- Every wheel of this design or model must be identified with the model code and a unique serial number, by a permanent marking, which must be visible with the tyre fitted.
- Each individual design or model that has passed the tests will be certified by an official document issued by the wheel manufacturer stating that the wheel conforms to the FIM Requirements for Grand Prix Wheels 2018.
- A copy of this compliance certificate must be sent to the MotoGP Technical Director (Danny Aldridge [danny@irta.org.uk](mailto:danny@irta.org.uk)) and to the FIM Racing Homologation Programme ([frhp@fim.ch](mailto:frhp@fim.ch)) A copy of this certificate must also be provided to customers together with approved wheels purchased.

#### 2.5.4.9 Tyre restrictions

1. In all classes, only tyres from the official appointed tyre supplier for each class may be used in an event.

**The quantity, specification and allocation of tyres will be determined by the official tyre supplier in consultation, and by agreement with, the Organisers and the Technical Director. Due to ongoing technical developments and changing conditions, the quantity, specification and allocation of tyres may be varied from time to time by mutual agreement.**

The official tyre supplier will provide sufficient tyres for all riders entered in the event.

Identical tyres of each specification for the relevant class and/or designation must be available to every rider, and the total quantity of tyres will be the same for every rider.

Tyres must be used according to the advised parameters which are agreed in consultation with the official tyre supplier, the Technical Director and the Organisers. Parameters may include pressure, temperature, or other usage guidelines.

Teams must comply with requests by the Technical Director, his staff, and the official tyre supplier to check tyre parameters at any time, which may include tyre pressure and/or temperature data from the datalogger.

The use of any device on the wheel to adjust the tyre pressure whilst on track is prohibited.

Riders or teams found to be using tyres outside of these operating parameters may be subject to penalties. The decision of the Technical Director, in consultation with the official tyre supplier, will be final.

2. Before the start of official practice, the tyre supplier must provide to the Technical Director details including specifications, quantities and the identification markings of the tyres available for that event.
3. Each rider will be restricted in the quantity and specification of tyres that they may use at an event as follows:

3 rear tyres during qualifying practice

1 rear tyre during each race

Only the rear slick tyres need to be marked with a tyre sticker. The rain tyres will not need to be marked with a tyre sticker and will not be considered in the total number of tyres available for use.

During the preliminary technical inspections, the adhesive stickers used for marking the tyres will be delivered to the teams. Each team will be responsible of marking their tyres.

The Technical Stewards and /or the official tyre supplier may perform random controls during the qualifying practices and races.

For both front and rear tyres, the specifications available at each event and the quantity of each specification allocated to each rider will be determined solely by the official tyre supplier. All riders will receive equal allocations.

4. Tyres may not be materially altered in any way after allocation, such as hand-cutting and any other action or treatment that will alter the tyre's performance (with the exception of the use of tyre warmers), unless deemed necessary by the tyre manufacturer. Such alterations may be performed only by or under the supervision of the tyre manufacturer's representative, and shall be made available equally for all riders.

5. If the riders are shown a red flag during the practice or the race/s, the Race Direction is allowed to authorize the use of a supplementary tyre. All checked tyres must be easily identifiable with a colour marking or a numerical system.
6. In the unlikely event of a tyre being accidentally damaged before it is used and deemed to be unusable by the Technical Director, it may be replaced with a tyre of the same specification with the permission of the Technical Director. Such replacement tyres will be marked and included in the allocation of the rider concerned. The damaged tyre will be removed from the allocation and may not be allocated again.

Once it is used (i.e. has exited pit lane) a tyre may not be replaced because of damage or defect, except if all the following conditions apply:

- a) The tyre supplier must confirm to the Technical Director that the damage is solely due to a manufacturing defect or fitting problem (i.e. out of the team's control), and not due to any other reason such as impact, cut, abrasion or accident.
  - b) The tyre supplier must confirm to the Technical Director that the damage is significant enough to deem the tyre unsafe to use.
7. Should an exceptional and unpredictable safety problem arise for the tyre supplier during an event, so as to prevent riders from safely competing in the race, then the tyre supplier must inform the Technical Director and Race Direction of the problem as soon as possible.

#### **2.5.4.10 Numbers and Backgrounds**

1. The racing number must be affixed to the front of the motorcycle fairing in a central position or on the side facing the official time keeping staff. Rear or side numbers are optional. If they are fitted, must govern the same rules as for front. Only numbers between 1 and 99 will be admitted.
2. Numbers should be a minimum height of 140 mm and a minimum width of 25 mm. Numbers from 1 to 9 can be wider.



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

Two-digit numbers must have a separation (min. 10 mm) between digits so the background colour is visible between digits.

4. Backgrounds must be of one single colour over an area large enough to provide a minimum clear area of 25 mm around the numbers.
5. In case of a dispute concerning the legibility of numbers, the decision of the Technical Director will be final.
6. The numbers and backgrounds will be as follows:

	Background	Number
Moto2™	Yellow	Black

## 2.5.5 General

### 2.5.5.1 Fuel and Oil

Refer to Appendix 13.

### 2.5.5.2 Rider's Safety Equipment

Refer to Appendix 14.

### 2.5.5.3 Procedures for Technical Control

Refer to Appendix 15.

### 2.5.5.4 Noise Tests

1. The maximum noise levels at all times are:

Maximum: 118 dB/A, measured in a static test at 5.500 rpm

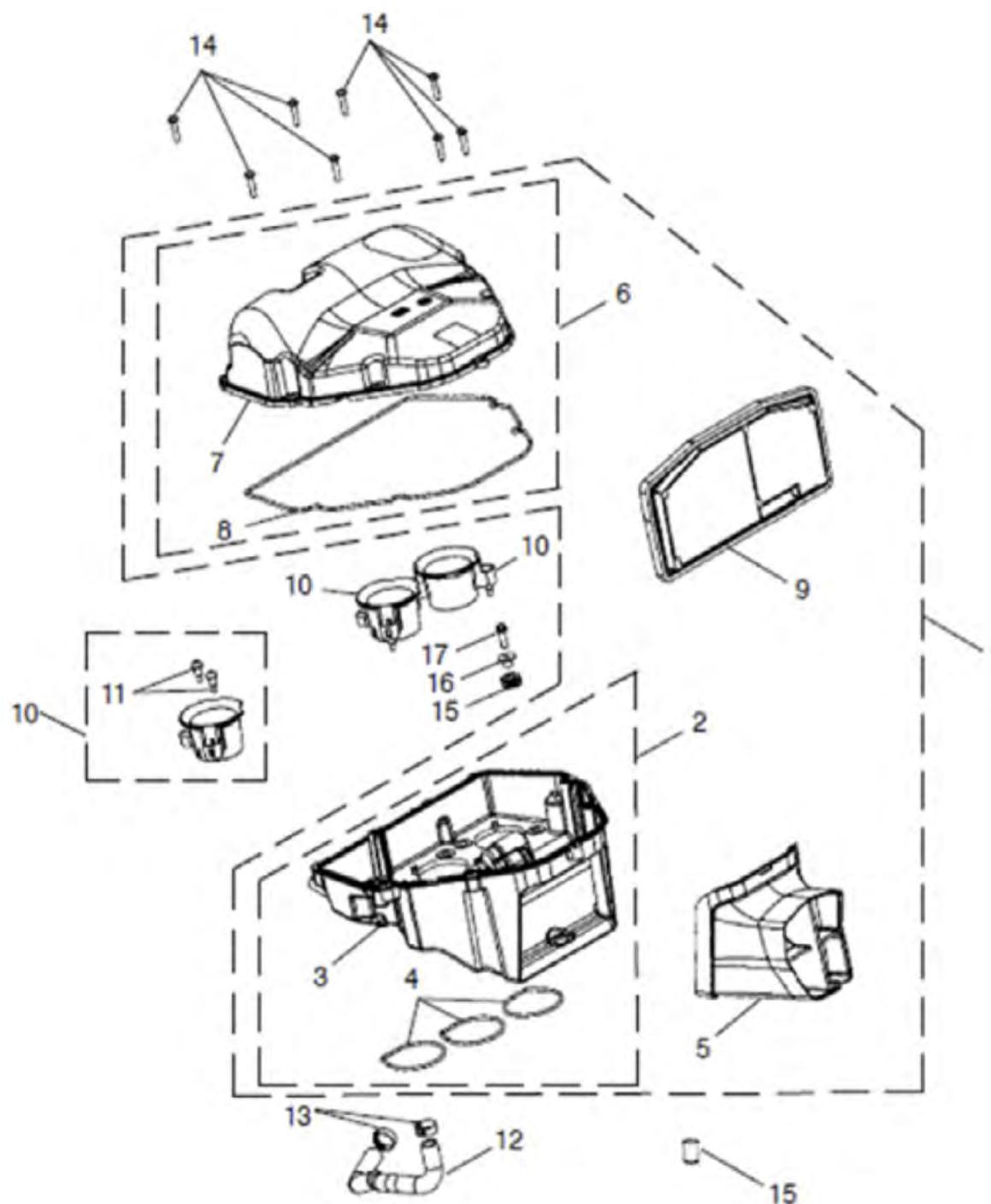
Also refer to Appendix 15.

## Moto2™ Appendix 5

### Airbox

The main airbox body, including all parts as supplied must be original, unmodified, and is mandatory. Check also 2.5.3.6.11.

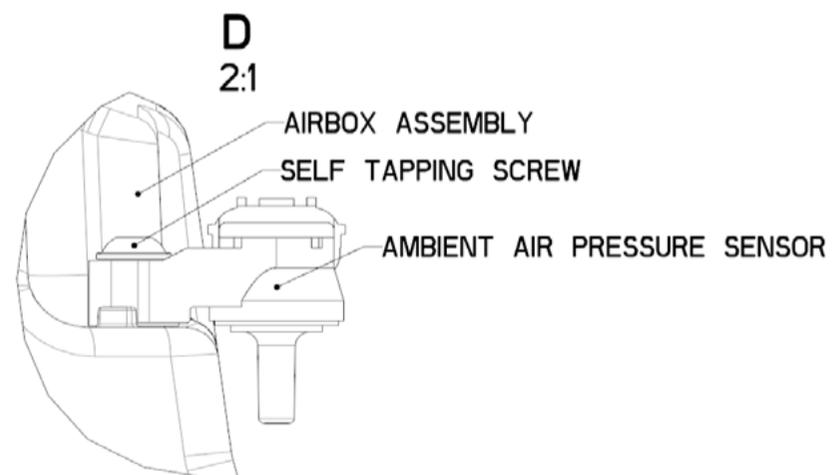
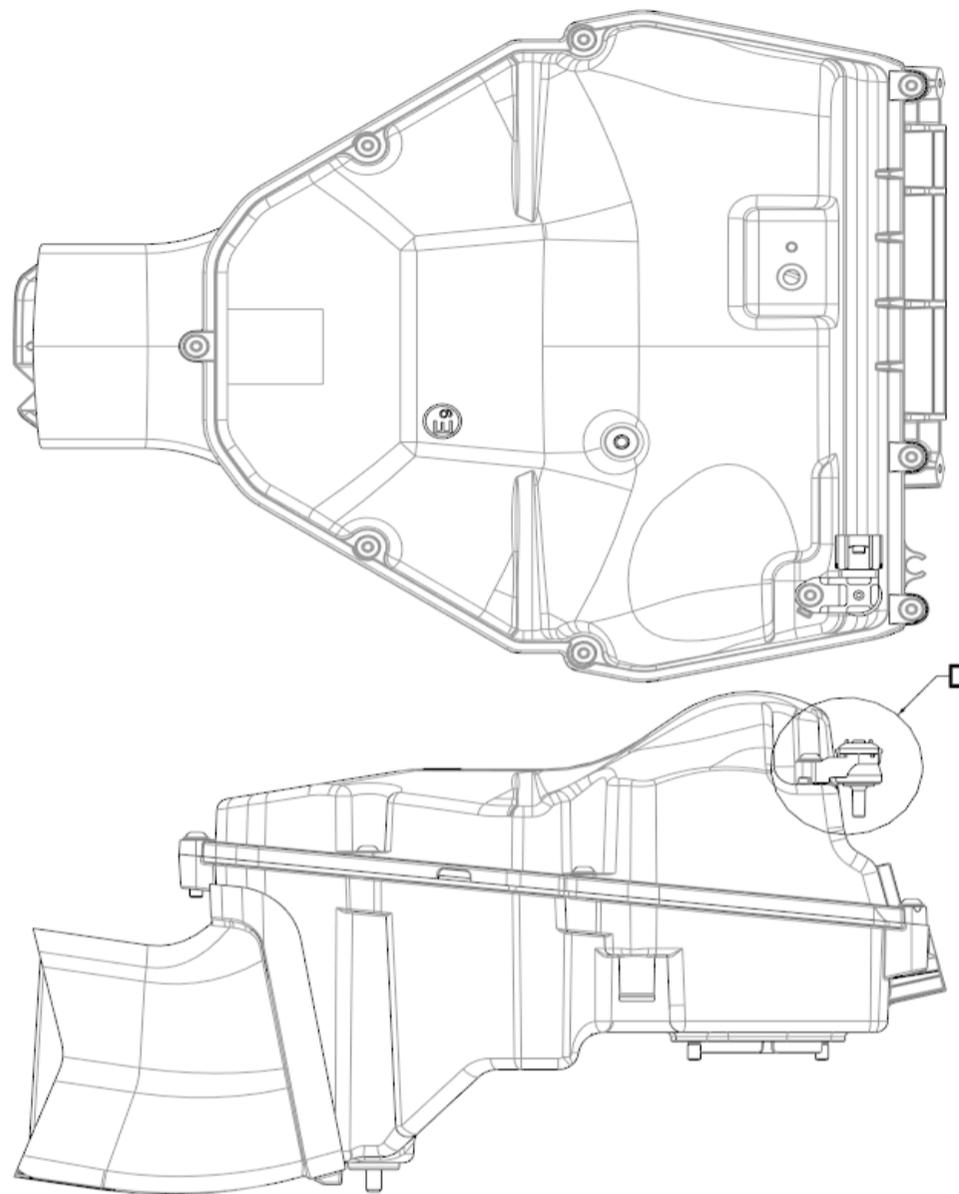
The transition duct, airbox to headstock (item 5 in the diagram) may be replaced or modified.



Moto2 Eur

## Moto2™ Appendix 6

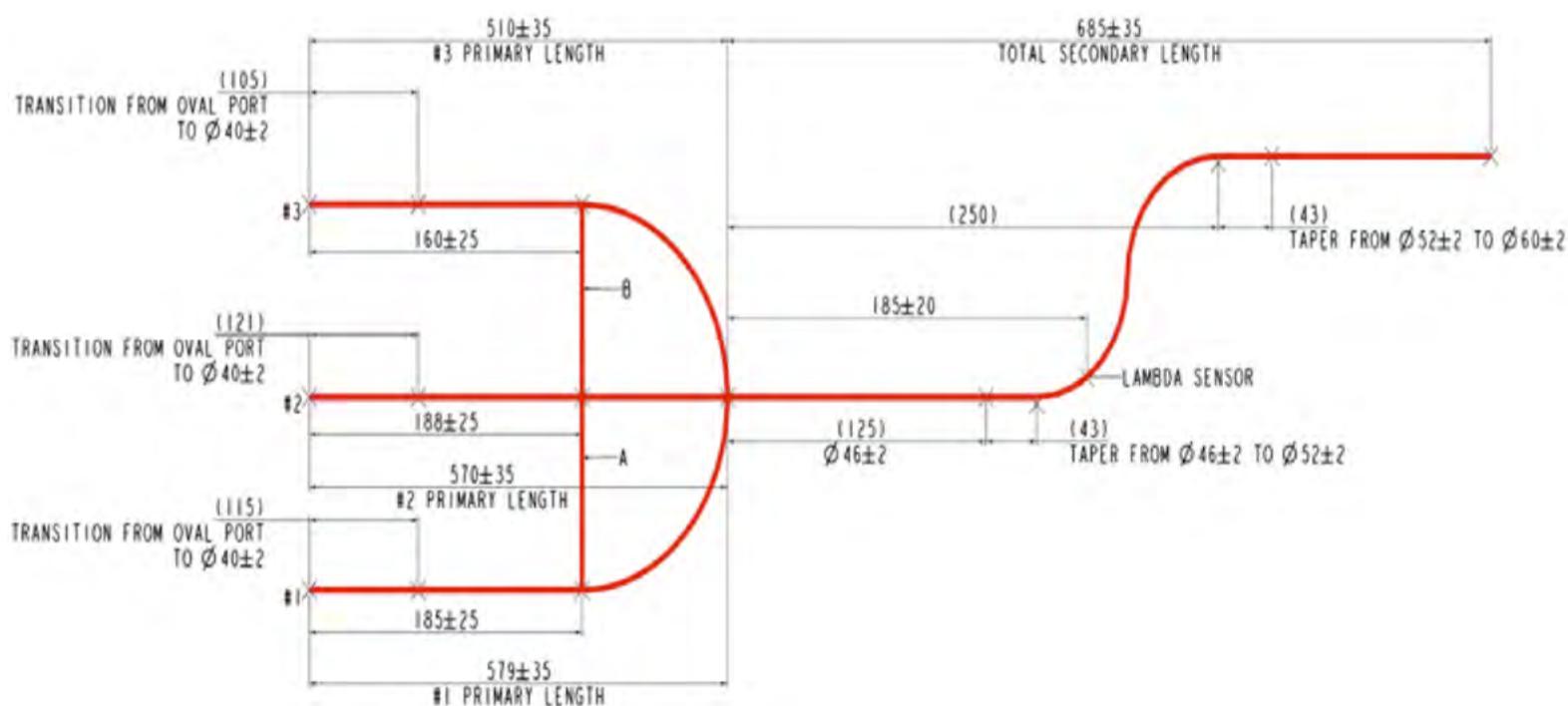
### Ambient Air Pressure Sensor position



## Moto2™ Appendix 7

### Exhaust specification

- Design and construction of the exhaust system must conform to the Engine Supplier's layout as shown below. That is, a 3-into-1 design respecting all dimensions and tolerances for pipe lengths and diameters.
- Pipe lengths are measured externally along the centre line of the pipe, between the median of the inner and outer lengths.
- A and B; balance pipes, internal diameter  $\varnothing 18 \text{ mm} \pm 2 \text{ mm}$ , internal hole (where balance pipe meets exhaust pipe) diameter  $\varnothing 15 \text{ mm} \pm 1 \text{ mm}$ .
- All pipe diameters shown are internal diameters.





## Moto2™ Appendix 8

### Compulsory Sensors/Electronic Components

List TBC.

CHASSIS				
	TYPE	FUNCTION	UNIFIED	NOTES
1	Digital switch	Kill switch	**NO	ECU Digital input
2	Hall effect pick up	Front wheel speed	**NO	5V supply or 12V supply – 2 needed for recovery strategies
3	Hall effect pick up	Rear wheel speed	**NO	5V supply or 12V supply
4	Linear lambda sensor	A/F ratio	Bosch LSU4.9	
ENGINE				
1	Magnetic pick up	RPM pickup	Triumph part of 1300053	Crank signal
2	Regulator Rectifier	Voltage Regulation	Triumph 1300675	
3	Coils	Ignition	Triumph 1291504	
4	Injector	Fuel Injection	Triumph 1243416	
3	Rotative potentiometer	Grip position	Triumph 2042226 or Domino 4078.03.13-00 / 4089.03.13-00	0-5V output
4	Rotative potentiometer	Throttle position	Triumph part 1243415	
5	Rotative potentiometer	Gearbox drum position	Triumph 1299876	
6	Temperature sensor	Intake ait temp.	Triumph 1290088	
7	Temperature sensor	Coolant temp.	Triumph 2100807	
9	Pressure sensor	Ambient air press.	Triumph 1290975	2 units are necessary
10	Pressure switch	Oil pressure	Triumph 1210091	
11	Hall effect pick up	Gear speed sensor	Triumph 1290221	
Moto2™ OPTIONAL SENSORS				
CHASSIS				
	TYPE	FUNCTION	UNIFIED	NOTES
1	<b>Pressure sensor</b>	<b>Fuel pressure</b>		<b>Supply voltage 5V</b>
2	Pressure sensor	Fuel pressure	2D-SAPK010M10HTxxx	Supply voltage 12V “xxx” digits depending on the chassis make/model <b>(not recommended)</b>
3	Linear potentiometer	Fork travel	**NO	0-5V output; 0-150 mm
4	Linear potentiometer	Shock travel	**NO	0-5V output; 75 or 100 mm
5	Pressure sensor	Front brake pressure	**NO	0-5V output
6	Pressure sensor	Rear brake pressure	**NO	0-5V output
7	TPS	Rear tire pressure	**NO	* see approved receiver. “xxx” digits depending on the chassis make/model
8	TPS receiver	Rear tyre pressure	**NO	* see approved TPS. “xxx” digits depending on the chassis make/model
9	TPS	Front tire pressure	**NO	* see approved receiver
10	Potentiometer		**NO	Up to a total of 2 x 0-5V additional rotary/linear potentiometers (e.g. steering position, clutch lever position...)
ENGINE				
1	Temperature sensor	Oil temp.		<b>Supply voltage 5V</b>
Moto2™ OPTIONAL ELECTRONIC COMPONENTS				
	TYPE	FUNCTION	UNIFIED	NOTES
1	Logger	Data acquisition Logger	USB Stick-Logger 2D	Sold by ECU Supplier
2	Logger	Data acquisition Logger	Other 2D loggers	Adapted by ECU Supplier
3	LCD Dash	Dashboard	MidiDash 2D	
4	Force transducer	Gear shifter load cell	Mectronik SEN GSS143	

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## Moto2™ Appendix 9

### Engine operating parameters

Crankshaft speed	14,000 rpm maximum
Operating water temperature	60 - 80°C
Air/Fuel Ratio target range	13.2 - 13.0
Oil level	Start of practice/race: at maximum level mark on dip stick. At all times between minimum and maximum level marks. Note: dipstick fully inserted when checking level.
Oil pressure	Low oil pressure warning must be respected



## MOTO2™ EUROPEAN CHAMPIONSHIP TECHNICAL SPECIFICATIONS

Manufacture engine motorcycle: Honda Motor Co., Ltd.

Model: CBR600RR 07 - 20 (Type PC40x)

EVERYTHING THAT IS NOT AUTHORISED AND PRESCRIBED IN THE POINTS 3.1, 3.2 & 3.6 IS STRICTLY FORBIDDEN

### 3.1 Engine

#### 3.1.1

It's compulsory to use the Honda CBR 600 RR model 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019 or 2020. (Type PC40x).

#### 3.1.2

Cam sprockets and its screws may be mechanized or replaced.

#### 3.1.3

“Pair” valve may be removed. To do this, it's allowed to install flat metal plates in the head cover.

#### 3.1.4

Electric starter may be removed. It's allowed to remove the gears of this electric starter, too.

#### 3.1.5

The cylinder head gasket may be changed.

#### 3.1.6

The oil filter may be changed.

#### 3.1.7

All lateral covers/engine cases containing oil and which could be in contact with the ground during a crash, must be protected by a second cover made from composite materials, type carbon or Kevlar®, aluminium, plastic or steel plates and/or bars are also permitted. All these devices must be designed to be resistant against sudden shocks and must be screwed to the crankcase.

### 3.1.8

Coolant hoses and fittings may be changed to suit individual radiator designs.

### 3.1.9

If necessary, the cam head can be planned and repair valve seats to allow reuse. This planned cannot exceed 0.1 mm. recommended by the engine manufacturer for this job.

### 3.1.10

The only pistons allowed, are the originals. The “oversized” pistons provided by the manufacturer are not allowed.

### 3.1.11

It's authorized to change the screw that fixes the pick-up (Part code 90013-430-000).

### 3.1.12

No other change that is not specified in this article is allowed.

### 3.1.13

In the case of dispute over modifications, the decision of the Technical Director will be final.

## 3.2 Fuel System

### 3.2.1

The throttle bodies must remain as originally produced by the manufacturer for the homologated engine.

### 3.2.2

Modifications to the fuel pressure regulator are not allowed. The fuel tank gauge assembly (ie. float, arm and support bracket) of the standard fuel pump may be removed.

### 3.2.3

The insulators that attach the throttle body to the head, cannot be modified or changed.

### 3.2.4

The air box must remain as originally produced by the manufacturer on the homologated machine, including the secondary injectors.

### 3.2.5

The air filter element may be modified or replaced.

### 3.2.6

The air box drains must be sealed (safety wired).

### 3.2.7

All motorcycles must have a closed breather system. All the oil breather lines must be connected and discharge in the airbox.

### 3.2.8

Only the standard airbox may be used. No modifications, alterations or additions to this airbox are allowed, except those described below:

- a) The intake ducts, ahead of the air filter, may be changed to suit individual chassis designs.
  - b) The resonance chambers on top of the airbox lid may be changed, modified or removed, either together with the top cover they are attached to, or the top cover may be left in place. They may be replaced by a blanking cover approximately flat in shape. The total airbox volume, from the filter back, may not be increased from the original. Refer to **Moto2™, Appendix 10**.
  - c) A catch-tank may be fitted in the engine breather between the cam cover and airbox. The catch tank is solely for the purpose of collecting engine fluids, no other functions (such as pressure modification) are permitted and breather connections may only be directly between the cam cover, catch tank and airbox. The catch tank and connections must be visible for inspection at all times (that is, not permanently built into the chassis or other parts).
- a) The airbox can be externally covered with an isolation material.



### 3.2.9

Only air or air/fuel is allowed between combustion chamber and intake air ducts.

### 3.2.10

The injectors must remain standard units as on the homologated engine.

### 3.2.11

Bell mouths may be modified or replaced as originally produced by the manufacturer for the homologated machine.

### 3.2.12

The throttle control valve must be controlled exclusively by mechanical means (ie. twistgrip and cable) operated by the rider only. No interruption of the mechanical connection between the rider's input and the throttle valve is allowed, and no devices may be added to the throttle cable system or to the standard throttle body to affect or control throttle valve movement.

### 3.2.13

Only fuel of the current year from the appointed fuel supplier is permitted. This fuel will be available at all official events, and will conform to the FIM Grand Prix specification. Use of this fuel without any addition or alteration is mandatory during the entire event (free practices, qualifying practices, warm-up and races). Also refer to **Appendix 13**.

### 3.2.14

In the Moto2™ class fuel on the motorcycle must not be below the prevailing ambient temperature, as measured by the Technical Director. Other than a simple removable fuel tank cover, the use of any device on the motorcycle to artificially decrease the fuel temperature below ambient temperature is forbidden.

### 3.2.15

Any quality of oil may be used.

### 3.3 Exhaust System

#### Exhaust

- a) The outlet of the exhaust must not extend behind a line drawn vertically through the edge of the rear tyre.
- b) For safety reasons the exposed edge of the exhaust pipe outlet must be rounded to avoid any sharp edges.
- c) Variable length exhaust systems are not permitted.
- d) Exhaust Gas Recirculation (EGR) systems are not permitted.

#### Noise Test

Also refer to **Appendix 15**.

#### 3.3.1

Noise limit is a maximum of 115 dB/A, measured in a static test at 5.500 rpm.

### 3.4 Cooling System

#### 3.4.1

Design and construction of the cooling system is free.

#### 3.4.2

The standard engine oil cooler is mandatory, and additional oil coolers are not permitted.

### 3.5 Control Systems

#### 3.5.1

The use of hydraulic and/or pneumatic pressurized powered systems is not allowed. All hydraulic systems on the motorcycle must be powered only by the rider's manual inputs with the following clarifications:

- Normal hydraulic hand/foot controls such as master/slave cylinders for brakes/clutch are allowed.
- Oil/water pumps for engine lubricating/cooling are allowed.
- The use of engine lubricating oil for any purpose other than lubrication and cooling (such as powered hydraulic systems) is not allowed.

### 3.5.2

Variable valve timing and variable valve lift systems, driven by hydraulic and/or electric/electronic systems are not permitted.

## 3.6 Clutch and Transmission

### 3.6.1

Clutch type (wet) and the way of operation (by cable) must remain as homologated.

### 3.6.2

Friction and drive discs may be changed.

### 3.6.3

Clutch springs may be changed.

### 3.6.4

The clutch basket (outer) may be changed.

### 3.6.5

The original clutch assembly may be modified for back torque limiting capabilities (slipper type).

### 3.6.6

It is allowed to change to an aftermarket clutch with back torque limiting capabilities (slipper type).

### 3.6.7

The use of electro-mechanical or electro-hydraulic actuating systems are not allowed.

### 3.6.8

An external quick-shift system on the gear selector (including wire and potentiometer) may be added.

### 3.6.9

Countershaft sprocket, rear wheel sprocket, chain pitch and size can be changed.

### 3.6.10

Clutch cover can be changed or modified, to fit a new clutch.

### 3.6.11

Other modifications to gearbox or selector mechanism are not allowed.

## 3.7 Ignition and Electronics

### 3.7.1

Ignition/engine control system (ECU) may be modified or changed.

### 3.7.2

The traction control systems are not allowed

## 3.8 Datalogger

### 3.8.1

The data acquisition may be added.

## 3.9 Chassis

### 3.9.1 Weights

#### 3.9.1.1

The following are the minimum weights permitted:

Moto2™ motorcycle + rider (if the rider uses airbag):	217 kg
<b>Moto2™ motorcycle + rider (if the rider doesn't use airbag):</b>	<b>219 kg</b>

#### 3.9.1.2

Ballast may be added to achieve the minimum weights.

#### 3.9.1.3

Weight may be checked at the initial technical control, but the main control of weight will be made at the end of practice sessions or at the end of the race. The weight of the motorcycle will be that measured in the form that the motorcycle participated, with fuel tank on and including normal levels of oil and water, and all additional equipment attached to the motorcycle,

for example timekeeping transponders, camera equipment, electronic datalogging equipment etc.

For this class the weight checked will be the total of the rider with full protective clothing plus the weight of the motorcycle. Random weight controls may be carried out during practice in a designated weighing area. Also refer to **Appendix 15**.

### 3.9.2 Safety and Construction criteria

#### 3.9.2.1

The chassis must be a prototype, the design and construction of which is free within the constraints of the FIM Grand Prix Technical Regulations. The main frame, swingarm, fuel tank, seat and fairing/bodywork from a non-prototype (ie. series production road-homologated) motorcycle may not be used. Also refer to **Appendix 11**.

#### 3.9.2.2

Throttle twistgrips must close automatically when released.

#### 3.9.2.3

Steering (Also refer to **Appendix 11**):

- a) Handlebars must have a width of not less than 450 mm and their ends must be solid or rubber covered. The width of the handlebar is defined as the width measured between the outside of the handlebar grips or throttle twist grips.
- b) There must be at least 15 degrees of movement of the steering each side of the centre line.
- c) Stops must be fitted to ensure a clearance of at least 30 mm between the handlebar and the fuel tank frame and/or bodywork when at the extremes of steering lock.

#### 3.9.2.4

Footrests must have rounded ends with a minimum solid spherical radius of 8 mm.

#### 3.9.2.5

Handlebar levers must not be longer than 200 mm measured from the pivot point.



### 3.9.2.6

Clearances:

- a) The motorcycle, unloaded, must be capable of being leaned at an angle of 50 degrees from the vertical without touching the ground, other than with the tyre.
- b) There must be a clearance of at least 15 mm around the circumference of the tyre at all positions of the motorcycle suspension and all positions of the rear wheel adjustment.

### 3.9.2.7

Any breather pipe from the engine or gearbox must discharge into the airbox and/or suitable container.

### 3.9.2.8

A chain guard must be fitted in such a way as to prevent trapping between the lower drive chain run and the final drive sprocket at the rear wheel.

### 3.9.2.9

Lateral engine covers containing oil and which could be in contact with the ground during a crash, should be protected by a second cover made from composite materials, e.g. nylon, carbon or Kevlar®. Plates and/or bars from aluminium or steel are also permitted. All these devices must be designed to be resistant against sudden shocks and abrasion and must be fixed properly and securely.

Such protection is mandatory in the Moto2™ class.

### 3.9.3 Timing Transponders

Please refer to **Appendix 12**.

### 3.9.4 Rear Safety Light

All motorcycles must have a functioning red light mounted at the rear of the machine, to be used in rain or low visibility conditions. The team must ensure that the light is switched on whenever a rain tyre is fitted on the motorcycle.

Lights must comply with the following:

- a) The lighting direction must be parallel to the centre line of the motorcycle (running direction) and it must be clearly visible from the rear, at least 15 degrees to both the left and right sides of the centre line of the motorcycle.
- b) It must be safely mounted on the very end of seat/rear bodywork and approximately on the centre line of the motorcycle. In case of dispute over the mounting position or visibility of the Rear Safety Light, the decision of the Technical Director will be final.
- c) The power output/luminosity must be equivalent to approximately 10-15W (incandescent) or 0,6-5W (led).
- d) able to be switched on and off by the rider when seated on the machine.
- e) safety light power supply may be separated from the motorcycle main wiring and battery.

### 3.10 Brakes

#### 3.10.1

Motorcycles must have a minimum of one brake on each wheel that is independently operated.

#### 3.10.2

In the Moto2™ class, only brake discs of ferrous materials are allowed.

#### 3.10.3

In all classes, the proportion of ceramic composite materials in brake discs must not exceed 2% by mass.

Ceramic materials are defined as inorganic, non metallic solids (e.g.  $\text{Al}_2\text{O}_3$ ,  $\text{SiC}$ ,  $\text{B}_4\text{C}$ ,  $\text{Ti}_5\text{Si}_3$ ,  $\text{SiO}_2$ ,  $\text{Si}_3\text{N}_4$ ).

Refer to Art. 3.16.4 and 3.16.5 for other permitted materials in brake component construction.

### 3.10.4

Motorcycles must be equipped with brake lever protection, intended to protect the handlebar brake lever(s) from being accidentally activated in case of collision with another machine. Acceptable protection includes the fairing extending sufficiently to cover the brake lever, as viewed from the front.

Such devices must be strong enough to function effectively and designed so that there is no risk for the rider to be injured or trapped by it, and it must not be considered a dangerous fitting (at the sole discretion of the Technical Director).

In case the brake lever protection is attached to any part of the braking system (e.g. brake master cylinder), then the brake system manufacturer must officially confirm in writing to the Technical Director that the device does not interfere with the proper brake operation.

### 3.10.5

Anti-lock Brake Systems (ABS) are not permitted. Braking inputs must be powered and controlled solely by the rider's manual inputs. Conventional hydraulic hand/foot controls such as master/slave cylinders for brake systems are allowed (refer also to Art. 5.1 Control Systems) but no increase or control of brake pressure by electronic or mechanical systems apart from the rider's direct manual inputs are allowed. Specifically, brake systems designed to prevent the wheel from locking when the rider applies the brake are forbidden.

## 3.11 Suspension and Dampers

### 3.11.1

Electric/electronic controlled suspension, ride height and steering damper systems are not allowed. Adjustments to the suspension and steering damper systems may only be made by manual human inputs and mechanical/hydraulic adjusters.

## 3.12 Fuel Tanks

### 3.12.1

Fuel caps must be leak proof and have a positive closing device.

### 3.12.2

Fuel tank breather pipes must include a non-return valve. Fuel tank breather pipes must discharge into a suitable container or containers, one per motorcycle with a minimum capacity of 200cc.

### 3.12.3

Fuel tanks of all construction types must be filled with fire retardant material or be lined with a fuel cell bladder.

### 3.12.4

Except for the case that a fuel tank is fixed on the chassis with bolts, all fuel lines from the fuel tank to the engine/injector system should have a self sealing breakaway valve. This valve must separate at less than 50% of the load required to break any part of the fuel line or fitting or to pull it out of the fuel tank.

### 3.12.5

Refuelling may only be carried out from an unpressurised container, and the motorcycle fuel tank may not be artificially pressurised above atmospheric pressure at any time. It is allowed to vent the fuel tank to the atmosphere via the airbox in order to equalise pressure in the airbox and fuel tank.

## 3.13 Bodywork

Note: please also refer to **Appendix 11**.

### 3.13.1

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

### 3.13.2

The maximum width of bodywork must not exceed 600 mm. The width of the seat or anything to its rear shall not be more than 450 mm (exhaust pipes excepted).

### 3.13.3

Bodywork must not extend more than 150 mm beyond a line drawn vertically from the centre of the front wheel spindle and a line drawn vertically at the rearward edge of the rear tyre. The suspension should be fully extended when the measurement is taken.

### 3.13.4

When viewed from the side, it must be possible to see:

- a) At least 180 degrees of the rear wheel rim.
- b) The whole of the front rim, other than the part obscured by the mudguard, forks, brake parts or removable air-intake.
- c) The rider, seated in a normal position with the exception of the forearms.

Notes: No transparent material may be used to circumvent the above rules. Covers for brake parts or wheels are not considered to be bodywork obstructing the view of wheel rims in regard to the above rules.

### 3.13.5

No part of the motorcycle may be behind a line drawn vertically at the edge of the rear tyre.

### 3.13.6

The seat unit shall have a maximum height of the (approximately) vertical section behind the rider's seating position of 150 mm. The measurement will be taken at a 90° angle to the upper surface of the flat base at the rider's seating position, excluding any seat pad or covering.

### 3.13.7

Mudguards are not compulsory. When fitted, front mudguards must not extend:

- a) In front of a line drawn upwards and forwards at 45 degrees from a horizontal line through the front wheel spindle.
- b) Below a line drawn horizontally and to the rear of the front wheel spindle.

The mudguard mounts/brackets and fork-leg covers, close to the suspension leg and wheel spindle, and brake disc covers are not considered part of the mudguard.

### 3.13.8

Device or shapes protruding from the fairing or bodywork and not integrated in the body streamlining (eg. wings, fins, bulges, etc.), that may provide an aerodynamic effect (eg. providing downforce, disrupting aerodynamic wake, etc.) are not allowed.

The Technical Director will be the sole judge of whether a device or fairing design falls into the above definition.

Moving aerodynamic devices are prohibited.

### 3.13.9

The lower fairing has to be constructed to hold, in case of an engine breakdown, at least half of the total oil and engine coolant capacity used in the engine (minimum 5 litres). This measurement should be taken with the fairing fitted to the motorcycle, whilst both wheels are on the ground and the motorcycle is upright at 90° to the horizontal.

The lower fairing may incorporate a maximum of two holes of Ø 25 mm diameter in the front lower area. This hole must remain closed in dry conditions and must be only opened in wet race conditions.

## 3.14 Wheel Rims

### 3.14.1

Permitted wheel rim sizes are as follows:

	Front	Rear
Moto2™	3.75" x 17" and 3.5" x 17"	6.00" x 17" only

### 3.14.2

In this class, composite construction wheels (including carbon fibre reinforced, glass fiber reinforced, and similar) are not permitted. The permitted materials for wheel construction are magnesium and aluminium alloys.

## 3.15 Tyres

### 3.15.1

Only tyres from the official tyre supplier may be used in a Moto2™ and each team must sign a contract.

### 3.15.2

The quantity, specification and allocation of tyres will be determined by the official tyre supplier in consultation, and by agreement with, the Organisers and the Technical Director. Due to ongoing technical developments and changing conditions, the quantity, specification and allocation of tyres may be varied from time to time by mutual agreement.

Only homologated tyres in each event are permitted.

### 3.15.3

The use of any device on the wheel to adjust the tyre pressure whilst on track is prohibited.

### 3.15.4

The maximum number of slick tyres allowed to use during the qualifying practices are THREE (3). Only the rear slick tyres need to be marked with a tyre sticker. The rain tyres will not need to be marked with a tyre sticker and will not be considered in the total number of tyres available for use.

### 3.15.5

A maximum of ONE (1) rear slick tyre per race may be used. Only the race rear slick tyres shall be marked with a code differentiable qualifying tyres. The rain tyres will not need to be marked with a tyre sticker and will not be considered in the total number of tyres available for use.

### 3.15.6

During the preliminary technical inspection, **these stickers** will be delivered to the teams. Each team will be responsible of marking their tyres.

### 3.15.7

The Technical Stewards and/or the official tyre supplier may perform random controls during the qualifying practices and races.

### 3.15.8

If the riders are shown a red flag during the practice or the race/s, the Race Direction is allowed to authorize the use of a supplementary tyre. All checked tyres must be easily identifiable with a colour marking or a numerical system.

### 3.15.9

In case of a technical problem, the Technical Director will take a decision about the problem.

## 3.16 Materials

NB. “X-based alloy” or “X materials” here means the element X (e.g. Fe, for ferrous or iron-based alloy) must be the most abundant element in the alloy, on a % w/w basis.

### 3.16.1

The use of titanium in the construction of the following parts is forbidden:

- The frame/chassis, excluding bolts and fasteners (the decision of the Technical Director will be final when determining what constitutes a part of the chassis).
- The swinging arm, excluding bolts and fasteners.

- The swinging arm spindles.
- The wheel spindles (for wheel spindles, the use of light alloys is also forbidden).
- The handlebars.
- The front suspension inner and outer tubes and bottoms (ie. axle mounting point).
- The shock absorber piston shaft and damper tube.

### 3.16.2

The basic structure of the crankshaft and camshafts must be made from ferrous materials, steel or cast iron. Inserts of a different material are allowed in the crankshaft for the sole purpose of balancing.

### 3.16.3

Pistons, cylinder heads and cylinder blocks may not be composite structures which use carbon or aramid fibre reinforcing materials.

### 3.16.4

Brake calipers must be made from aluminium materials with a modulus of elasticity no greater than 80 Gpa.

### 3.16.5

All connectors from the brake hose to the brake calipers (front and rear) and the brake master cylinders must have structural components (\*) manufactured from either steel or titanium alloys with a tensile strength no less than 500 Mpa.

\* Brass connectors are permitted for rear brake hoses only.

### 3.16.6

No parts of the motorcycle or engine may be made from metallic materials which have a specific modulus of elasticity greater than 50 Gpa/(g/cm<sup>3</sup>).

### 3.16.7

The use of MMC (Metal Matrix Composite) and FRM (Fibre Reinforced Metal) materials is forbidden.

## **3.17 General**

### **3.17.1**

Number of motorcycles (Also refer to **Appendix 15**).

#### **3.17.1.1**

Teams may present only one motorcycle per rider for Technical Control.

#### **3.17.1.2**

If during the official practice sessions a motorcycle suffers any damages that are difficult to repair in the circuit, the Technical Director could allow a second motorcycle to go under the technical inspection. The process of authorizing a new machine is not possible during a practice session. Once the starting procedure is initiated, it isn't possible to verify a second motorcycle, neither in case of detention by red flag. In case of events with two races, once the first race is finished, the Technical Director may allow the request for verification of a second motorcycle.

### **3.17.2**

Once the official practice sessions have started, only the motorcycle that has gone under the technical inspection will be allowed to be inside the box.

## **3.18 Numbers and backgrounds**

### **3.18.1**

The front plate must be located in the middle of the fairing's front or on the side facing the official time keeping staff.

### **3.18.2**

Rear or side numbers are optional. If they are fitted, must govern the same rules as for front.



### 3.18.3

The dimensions for the number plates must be: 140 mm x 25 mm minimum. Numbers from 1 to 9 can be wider. Two-digit numbers must have a separation (min. 10 mm) between digits so the background colour is visible between digits. Only numbers between 1 and 99 will be admitted.

### 3.18.4

Backgrounds must be of one single colour over an area large enough to provide a minimum clear area of 25 mm around the numbers.

### 3.18.5

In case of a dispute concerning the legibility of numbers, the decision of the Technical Director will be final.

### 3.18.6

Numbers cannot overlap.

### 3.18.7

The numbers and backgrounds will be as follows:

	Background	Number
Moto2™	Yellow	Black

### 3.19 Fuel and oil

Refer to Appendix 13.

### 3.20 Rider's Safety Equipment

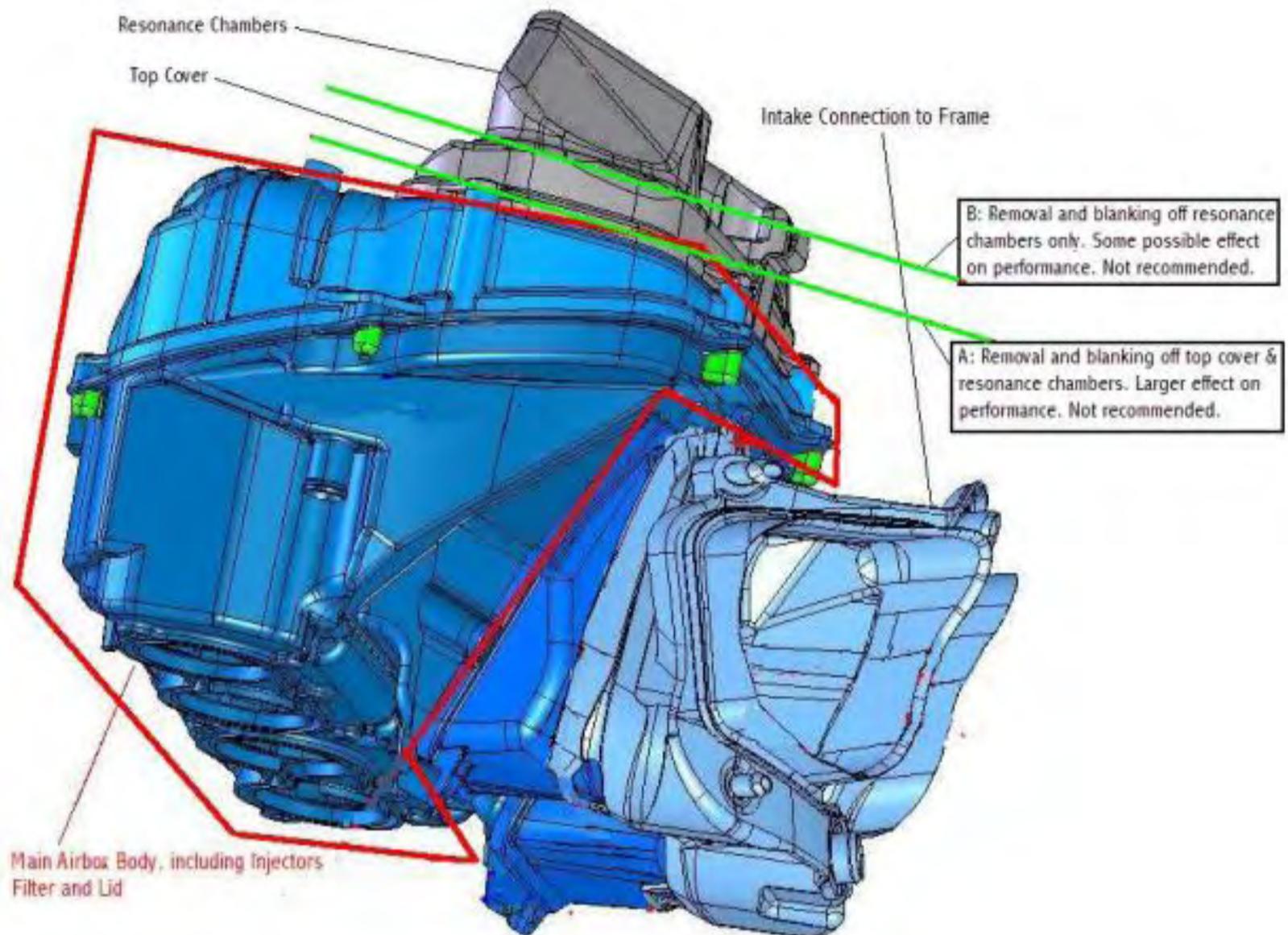
Refer to Appendix 14.

### 3.21 Procedures for Technical Control

Refer to Appendix 15.

Moto2 Eur

## Moto2™ Appendix 10



## 4.6 ~~SUPER~~**STOCK 600** TECHNICAL SPECIFICATIONS

The following rules are intended to permit limited changes to the homologated motorcycle in the interests of safety and improved competition between various motorcycle concepts.

### **EVERYTHING THAT IS NOT AUTHORISED AND PRESCRIBED IN THIS RULE IS STRICTLY FORBIDDEN**

If a change to a part or system is not specifically allowed in any of the following articles, then it is forbidden.

**Stock** ~~Superstock~~ motorcycles require an FIM homologation (see FIM Homologation procedure for Superstock, Supersport and Superbike motorcycles available on the FIM Web site: [www.fim-moto.com/library](http://www.fim-moto.com/library)). All machines must be normally aspirated. All motorcycles must comply in every respect with all the requirements for road racing as specified in these Technical Regulations, unless they are already equipped as such on the homologated model.

Once a motorcycle has obtained the homologation, it may be used for racing in the corresponding class for a maximum period stated by FIM Homologation procedure, or until such time that the homologated motorcycle is disqualified by new rules or changes in the technical specifications of the corresponding class.

The appearance from both front, rear and the profile of **Stock** ~~Superstock~~ motorcycles must (except when otherwise stated) conform to the homologated shape (as originally produced by the manufacturer). The appearance of the exhaust system is excluded from this rule.

Eligible models are listed on the FIM website ([www.fim-moto.com](http://www.fim-moto.com)).

### 4.6.1 Motorcycle specifications

All parts and systems not specifically mentioned in the following articles must remain as originally produced by the manufacturer for the homologated motorcycle.



## 4.6.2 Displacement capacities

The following engine configurations comprise the **Stock** ~~Superstock~~ class:

Over 400 cc up to 600 cc	4-stroke	4 cylinders
Over 500 cc up to 675 cc	4-stroke	3 cylinders
Over 600 cc up to 750 cc	4-stroke	2 cylinders

The displacement capacity, bore and stroke (new), must remain at the homologated size.

## 4.6.3 Balancing various motorcycle concepts

In order to equalize the performance of motorcycles with different engine configurations, changes in the minimum weight may be applied according to their respective racing performances. The decision about applying a handicap system to a respective class is taken by the FIM CEV Commission at any time.

The application of the handicap will follow the system like described in the Superbike regulations but will be adapted to this class.

## 4.6.4 Minimum Weights

Refer also to **Appendix 15**.

The minimum weight for each model is calculated by FIM by determining the “dry weight” of the homologated motorcycle.

The “dry” weight of a homologated motorcycle is defined as the total weight of the empty motorcycle as produced by the manufacturer (after removal of fuel, vehicle number plate, tools and main stand and side stand when fitted but with oil and radiator liquid at prescribed level). To confirm the “dry” weight a minimum of three (3) motorcycles are weighed and compared. The result will be rounded off to the nearest digit.

The minimum weight for each model will be calculated by reducing the dry weight” of the motorcycle in 12 kg.

At any time of the event, the weight of the whole machine (including the tank and its contents) must not be lower than the minimum weight.

There is no tolerance on this minimum weight.

During the final technical inspection at the end of the race, the selected motorcycles will be weighed in the condition they finished the race, and the established weight limit must be met in this condition. Nothing may be added to the motorcycle. This includes all fluids.

During the practice and qualifying sessions, riders may be asked to submit their motorcycle to a weight control. In all cases the rider must comply with this request.

The use of ballast is allowed to stay over the minimum weight limit and may be required due to the handicap system. The use of ballast and weight handicap must be declared to the Technical Director at the preliminary checks.

**For the riders not using airbag, the motorcycle's minimum weight will be increased of 2 kg.**

#### 4.6.5 Numbers and number plates

The background colours and figures (numbers) for **Stock** ~~Superstock~~ are yellow background with black numbers:

The sizes for all the front numbers are:

Minimum height:	140 mm
Minimum width:	80 mm
Minimum stroke:	20 mm
Minimum space between numbers	10 mm

The size for all the side numbers is:

Minimum height:	120 mm
Minimum width:	70 mm
Minimum stroke:	25 mm
Minimum space between numbers	10 mm

The allocated number (& plate) for the rider must be affixed on the machine as follows:

- once on the front, either in the centre of the fairing or slightly off to one side. The number must be centred on the yellow background with no advertising within 25 mm in all directions.
- once on each side of the motorcycle. Alternatively, once across the top of the rear seat section with the top of the number towards the rider. The rear and side numbers are optional. The preferred location for the numbers on each side of the motorcycle is on the lower rear portion of the main fairing near the bottom. The number must be centered on the yellow background.



- c) The numbers must use sufficiently legible fonts.
- d) The background colour must be clearly visible around all edges of the number (including outline). Reflective or mirror type numbers are not permitted.
- e) Numbers cannot overlap.
- f) No machine may enter the circuit if it does not meet the above regulations. If the rider does enter the circuit then no lap times will be recorded and Race Direction will at their discretion black flag the rider.

In case of a dispute concerning the legibility of numbers, the decision of the Technical Director will be final.

#### 4.6.6 Fuel

Refer to Appendix 13.

#### 4.6.7 Tyres

Only tyres from the official tyre supplier may be used in the **Stock Superstock** FIM JuniorGP and each team must sign a contract.

The quantity, specification and allocation of tyres will be determined by the official tyre supplier in consultation, and by agreement with, the Organisers and the Technical Director. Due to ongoing technical developments and changing conditions, the quantity, specification and allocation of tyres may be varied from time to time by mutual agreement.

Only homologated tyres in each event are permitted. The tread pattern must be made exclusively by the manufacturer when producing the tyre. For each event, all tyres must be made of the same quality and shall be strictly identical.

During qualifying practices and race(s), rear tyres may be required to be marked with tyre stickers.

The Technical director may, at this discretion, require the exchange of one (1) or more competitors' tyres for a tyre sample under his control. The tyres exchanged remain under his/her control and he/she can exchange them for the ones of another competitor.

The use of tyre warmers is allowed.

The maximum number of rear slick tyres allowed to use during the qualifying practices are THREE (3). Only the rear slick or “road legal” tyres need to be marked with a tyre sticker.

A maximum of ONE (1) rear “dry” tyre per race may be used. Only the race rear “dry” tyres shall be marked with a code differentiable qualifying tyres. The wet tyres will not need to be marked with a tyre sticker and will not be considered in the total number of tyres available for use.

The wet tyres will not need to be marked with a tyre sticker and will not be considered in the total number of tyres available for use.

During the preliminary technical inspection, **these stickers** will be delivered to the teams. Each team will be responsible of marking their tyres. Each team will be responsible of marking their tyres.

The Technical Stewards and/or the official tyre supplier may perform random controls during the qualifying practices and races. If the riders are shown a red flag during the practice or the race/s, the Permanent Race Direction is allowed to authorize the use of a supplementary tyre. All checked tyres must be easily identifiable with a colour marking or a numerical system.

In case of a technical problem, the Technical Director will take a decision about the problem.

#### **4.6.8 Engine**

##### **4.6.8.1 Fuel Injection System**

- a) The original homologated fuel injection system must be used without any modification.
- b) The fuel injectors must be stock and unaltered from the original specification and manufacture.
- c) Air Funnels must remain as originally produced by the manufacturer for the homologated motorcycle.
- d) Butterfly valves cannot be changed or modified.
- e) All the parts of the variable intake tract device must remain and operate exactly as homologated. They cannot be added if not fitted to the homologated machine.



- f) Air and air/fuel mixture must go to the combustion chamber exclusively through the throttle bodies.
- g) Electronically controlled throttle valves, known as “ride-by-wire”, may be only used if the homologated model is equipped with the same system.

#### **4.6.8.2 Cylinder Head**

- a) Must be the originally fitted and homologated part with no modification allowed.
- b) The gaskets may be changed.
- c) Valve spring shims may be changed freely.
- d) Only normal maintenance interventions as prescribed by the Manufacturer in the service manual of the motorcycle are authorized.
- e) The exhaust air bleed system must be blocked and the external fittings on the cam cover(s) may be replaced by plates.

#### **4.6.8.3 Camshaft**

- a) Must be the originally fitted and homologated part with no modification allowed.
- b) At the technical checks: for direct cam drive systems, the cam lobe lift is measured; for non direct cam drive systems (i.e. with rocker arms), the valve lift is measured.

#### **4.6.8.4 Cam sprockets or Gears**

- a) Cam Sprockets may be slotted to allow the adjustment of cam timing.
- b) Pressed on cam sprockets may be replaced with an adjustable boss and cam sprocket.
- c) The cam chain and tensioner must remain as homologated.

#### **4.6.8.5 Cylinders**

Must be the originally fitted and homologated part with no modification allowed.

#### **4.6.8.6 Pistons**

Must be the originally fitted and homologated part with no modification allowed.

#### **4.6.8.7 Piston rings**

Must be the originally fitted and homologated part with no modification allowed.

#### **4.6.8.8 Piston pins and Clips**

Must be the originally fitted and homologated part with no modification allowed.

#### **4.6.8.9 Connecting rods**

Must be the originally fitted and homologated part with no modification allowed.

#### **4.6.8.10 Crankshaft**

Must be the originally fitted and homologated part with no modification allowed.

#### **4.6.8.11 Crankcase / Gearbox housing**

- a) Crankcases must remain as homologated. No modifications are allowed (including painting, polishing and lightening).
- b) It is not allowed to add a pump used to create a vacuum in the crankcase. If a vacuum pump is installed on the homologated motorcycle then it may be used only as homologated.

##### **4.6.8.11.1 Lateral covers and protection**

- a) Lateral (side) covers may be altered, modified or replaced. If altered or modified, the cover must have at least the same resistance to impact as the original one. If replaced, the cover must be made in material of same or higher specific weight and the total weight of the cover must not be less than the original one.
- b) All lateral covers/engine cases containing oil and which could be in contact with the ground during a crash, must be protected by a second cover made from metal, such as aluminium alloy, stainless steel, steel or titanium, composite covers are not permitted.
- c) The secondary cover must cover a minimum of 1/3 of the original cover. It must have no sharp edges to damage the track surface.

- d) Plates or crash bars made from aluminium or steel also are permitted in addition to these covers. All of these devices must be designed to be resistant against sudden shocks, abrasions and crash damage.
- e) Covers from Eligible parts for Competition - List 2021 will be permitted without regard of the material or its dimensions.
- f) These covers must be fixed properly and securely with a minimum of three (3) case cover screws that also mount the original covers/engine cases to the crankcases.
- g) Oil containing engine covers must be secured with steel bolts.
- h) The Technical Director has the right to refuse any cover not satisfying this safety purpose.

#### **4.6.8.12 Transmission / Gearbox**

- a) Must be the originally fitted and homologated part with no modification allowed except:
  - i) The positive neutral selector mechanism may be removed.
  - ii) Shift star/indexer spring, roller and detent may be replaced but must function as originally designed.
- b) Quick-shift systems are allowed (including wire and potentiometer). Also refer to Art. 4.6.9.1 r.
- c) Countershaft sprocket, rear wheel sprocket, chain pitch and size may be changed.
- d) The sprocket cover may be modified or eliminated.
- e) Chain guard as long as it is not incorporated in the rear fender may be removed.

#### **4.6.8.13 Clutch**

- a) Must be the originally fitted and homologated part with no modification allowed.
- b) Only friction and drive discs may be changed, but their number must remain as original.
- c) Clutch springs may be changed.

#### 4.6.8.14 Oil pumps and Oil lines

- a) Must be the originally fitted and homologated part with no modification allowed.
- b) Oil lines may be modified or replaced. Oil lines containing positive pressure, if replaced, must be of metal reinforced construction with swaged or threaded connectors.

#### 4.6.8.15 Radiator, cooling system and oil coolers

- a) The only liquid engine coolants permitted is water.
- b) Protective meshes may be added in front of the oil and/or water radiator(s).
- c) The cooling system hoses and catch tanks may be changed.
- d) Radiator fan and wiring may be removed. Thermal switches, water temperature sensor and thermostat may be removed inside the cooling system.
- e) Radiator cap is free.
- f) An additional water radiator may be fitted but the appearance of the front, the rear and the profile of the motorcycle must not be changed. Extra mounting brackets to accommodate the additional radiator are permitted.
- g) The original heat exchanger (oil/water) may be replaced by an oil-cooler and its tubes separated from the cooling circuit. The original oil radiator (if fitted) may be replaced.

#### 4.6.8.16 Air box

- a) The air box must remain as originally produced by the manufacturer on the homologated motorcycle.
- b) The air filter element may be modified or replaced but must be mounted in the original position.
- c) The air box drains must be sealed.
- d) All motorcycles must have a closed breather system. All the oil breather lines must be connected, may pass through an oil catch tank and must exclusively discharge in the airbox.

- e) No heat protection may be attached to the airbox.

#### 4.6.8.17 Fuel supply

- a) Fuel pump and fuel pressure regulator must remain as homologated.
- b) The fuel pressure must be as homologated.
- c) Fuel lines from the fuel tank to the delivery pipe assembly (excluded) may be replaced and must be located in such a way that they are protected from crash damage.
- d) Fuel level sensors may be removed or fixed in position.**
- e) Quick connectors or dry break connectors may be used.
- f) Fuel vent lines may be replaced.
- g) Fuel filters may be added.

#### 4.6.8.18 Exhaust system

- a) Exhaust pipes and silencers may be modified or changed. Catalytic converters must be removed.
- b) The number of the final exhaust silencer(s) must remain as homologated. The silencer(s) must be on the same side(s) of the homologated model.
- c) For safety reasons, the exposed edges of the exhausts pipe(s) outlet must be rounded to avoid any sharp edges.
- d) Wrapping of exhaust systems is not allowed except in the area of the rider's foot or an area in contact with the fairing for protection from heat.
- e) The noise limit for **Stock** ~~Superstock~~ be 107 dB/A (with a 3 dB/A tolerance after the race only).

#### 4.6.8.19 Sound level control

Refer to Appendix 15.

##### 4.6.8.19.1 Sound limits in force:

Noise will be controlled at: Max. 107 dB/A measured at a mean piston speed of 11 m/sec.

#### 4.6.8.19.2 Noise control

Due to the similarity of the piston stroke in different engine configurations within the capacity classes, the noise test will be conducted at a fixed RPM. For reference only, the mean piston speed at which the noise test is conducted is calculated at 11 m/sec.

	2 Cylinders	3 Cylinders	4 Cylinders
600 c.c.	5.500 RPM	6.500 RPM	7.000 RPM
To 750 c.c.	5.500 RPM	6.000 RPM	7.000 RPM

#### 4.6.8.19.3 Noise control after the competition

In a competition which requires a final examination of machines before the results are announced, this examination can include a noise control measurement of at least the first three machines listed in the final classification. At this final test, there will be a 3 dB/A tolerance.

### 4.6.9 Electrics and Electronics

#### 4.6.9.1 Ignition / Engine Control System (ECU)

- a) The engine control system (ECU) must be either:
  - i) The original system as homologated, with no change of software being allowed.
  - ii) The original system (with the production ECU and no change of software) (option i) may have external ignition and/or injection module/s added. The total combined retail price (software and tuning tools included) on sale to the general public cannot be higher than €3000 (VAT excluded). A special connector may be used to connect the module/s and the ECU.
  - iii) An Eligible For Competition - List 2022 “Superstock Kit” model with approved software (produced and/or approved by the motorcycle manufacturer) may be used. A special connector/adaptor may be used to connect the ECU(s) and the original wiring harness. The combined retail price of the full system including software, tuning tool, download/connection cable any activations, upgrades and wiring harness(s) must be less than:
    1. €3000 (VAT excluded) if the system excludes data logging.
    2. €3750 (VAT excluded) if the system includes data logging.

The ECU (with software and activations) and harness parts must be individually priced and available separately. The separate ECU and harness total must respect the above limits.

- iv) Other “Superstock Kit” ECU(s) from other manufacturers may be used provided these have been homologated for other models of the category; Therefore, other manufacturers may use this “Superstock Kit” ECU for their own motorcycles provided these have been homologated for the relevant model.
- b) The software and the firmware must be supplied and approved by the machines manufacturer.
- c) The manufacturer must provide the FIM with the tools/software to perform software checks.
- d) Throughout the season the manufacturer may update the software and the updates must be made available simultaneously to all users of the system with no charge, updating by a team is not compulsory.
- e) Central unit (ECU) may be relocated.
- f) Corner by corner or distance/position based adjustments are not allowed.
- g) Optional equipment sold by the motorcycle Manufacturer for the homologated model is considered not homologated with the bike and must follow the requirements for approved electronics/data loggers.
- h) During an event the Technical Director has the right to ask a team to substitute their ECU or external module with the sample received from the Manufacturer. The change has to be done before Sunday warm up.
- i) No extra sensors may be added for control strategies except shift rod sensor, wheel speed sensors and lambda sensors. Any of these sensors must be included in the Kit ECU and Harness package if required for strategies (including closed loop lambda).
- j) Other additional electronic hardware equipment not on the original homologated motorcycle cannot be added with the exceptions noted below.
- k) Resistors/load may be added to replace the parts of the electrical system that have been removed (including lights and lambda sensors), to prevent ECU errors.



- l) An ABS replacement/bypass may be fitted and or the ABS unit may be dismantled to leave just its ECU.
- m) The data logging system is free. The data logger may not act to control any strategy or setting in the ECU - except to replicate the original dashboards signals if the original dashboard is removed. The logger may not automate these setting changes.
- n) The addition of a device for infrared (IR) transmission of a signal between the racing rider and his team, used exclusively for lap timing.
- o) The addition of a GPS unit for lap timing/scoring purposes is allowed.
- p) Telemetry is not allowed.
- q) Harness:
  - a) The main wiring harness may be replaced by the kit wire harness as supplied for the Kit ECU model, produced and/or approved by the manufacturer of the motorcycle. Other main wiring harness are also allowed to fit other Kit ECUs (refer to Art. 4.6.9.1 a) iv)). Check Eligible Parts for Competition - List **2022**.
  - b) The Kit wiring harness may incorporate the data logging harness.
  - c) The key/ignition lock may be relocated, replaced or removed.
  - d) Cutting of the original main wiring harness is allowed.
- r) External modules may not alter any sensor signal relating to the ride by wire system or control/actuate any part of the machine excepting the ignition coils and fuel injectors.

No external module may add traction control strategies unless originally fitted to the homologated machine. Downshift blip is only allowed when controlled by the Eligible Parts for Competition - List **2022** "Superstock Kit" ECU, external downshift blip modules are NOT allowed.

- s) The original speedometer and tachometer may be altered or replaced (see also 4.6.11 The dashboard is free, however it may only replace the functions of the standard dashboard (including switch logic and display) and may not perform any other logic function on the bike unless included in the Superstock Kit. If essential for the operation of the electronics it must be included in the Superstock Kit. It may also contain the datalogger. There must remain a working Tachometer display.

- t) Spark plugs may be replaced.
- u) Battery is free.

#### 4.6.9.2 Generator, alternator, electric starter

- a) The generator (ACG) must be the originally fitted and homologated part with no modification allowed.
- b) The stator must be fitted in its original position and without offsetting.
- c) The electric starter must operate normally and always be able to start the engine during the event.
- d) During final technical inspections the starter must crank the engine at a suitable speed for starting for a minimum of 2 seconds without the use a boost battery. No boost battery may be connected to the machine after the end of the session.

#### 4.6.10 Main frame

During the entire duration of the event, each rider can only use one (1) complete motorcycle, as presented for Technical Control, with the frame clearly identified with a seal. In case the frame will need to be replaced, only if the frame is damaged, the rider or the team must request the use of a spare frame to the Technical Director. Other circumstances may be taken into account by Race Direction.

The pre-assembled spare part frame must be presented to the Technical Director for the permission of rebuilding. The pre-assembly shall be strictly limited to:

- Main frame
- Bearings (steering pipe, swing arm, etc)
- Swing arm
- Rear suspension linkage and shock absorber
- Upper and lower clamps (triple clamp, fork bridges)
- Wiring harness

The spare frame will not be allowed in the pit box before the rider or the team has received authorization from the Technical Director.

The rebuilt motorcycle must be inspected before its use by the technical stewards for safety checks and a new seal will be placed on the motorcycle frame.

No other spare machine may be at the track. If found penalties will be applied. For the remainder of the event the machine will be impounded and no part of that machine may be used for spare parts.

#### 4.6.10.1 Frame body and Rear sub frame

- a) The frame must remain as originally produced by the manufacturer for the homologated motorcycle.
- b) Holes may be drilled on the frame only to fix approved components (i.e. fairing brackets, steering damper mount, sensors).
- c) The sides of the frame-body may be covered by a protective part made of a composite material. These protectors must fit the form of the frame, but they must leave an empty place to add the technical control sticker close to the right side of the pivot frame.
- d) Crash protectors may be fitted to the frame, using existing points (max length: 50 mm), or pressed into the ends of the wheel axles (max length: 30 mm). Without exception, the wheel axles cannot be modified.
- e) Nothing else may be added or removed from the frame body.
- f) All motorcycles must display a vehicle identification number punched on the frame body (chassis number).
- g) Engine mounting brackets or plates must remain as originally produced by the manufacturer for the homologated motorcycle.
- h) Front sub frame/fairing mount may be changed or altered but the use of titanium and carbon (or similar composite materials) is forbidden.
- i) Rear sub frame may be changed or altered, but the type of material must remain as homologated, or material of a higher specific weight.
- j) Additional seat brackets may be added, non-stressed protruding brackets may be removed if they do not affect the safety of the construction or assembly. Bolt-on accessories to the rear sub-frame may be removed.
- k) The paint scheme is not restricted but polishing the frame body or sub frame is not allowed.

#### 4.6.10.2 Suspension - General

- a) Electronic Suspension:
  - i) No aftermarket or prototype electronically-controlled suspensions **may be** used. Electronically-controlled suspension may only be used if already present on the production model of the homologated motorcycle.
  - ii) The electronically-controlled valves must remain as homologated. The shims, spacers and fork/shock springs not connected with these valves can be changed.
  - iii) The ECU for the electronic suspension must remain as homologated and cannot receive any motorcycle track position or sector information; the suspension cannot be adjusted relative to track position.
  - iv) The electronic interface between the rider and the suspension must remain as on the homologated motorcycle. It is allowed to remove or disable this rider interface.
  - v) The original suspension system must work safely in the event of an electronic failure.
  - vi) Electro-magnetic fluid systems which change the viscosity of the suspension fluid(s) during operation are not permitted.
- b) Electronic controlled steering damper cannot be used if not installed on the homologated model for road use. However, it must be completely standard (any mechanical or electronic part must remain as homologated).

#### 4.6.10.3 Front Forks

- a) Forks (stanchions, stem, wheel spindle, upper and lower crown, etc.) must remain as originally produced by the manufacturer for the homologated motorcycle.
- b) The upper and lower fork clamps (triple clamp, fork bridges) must remain as originally produced by the manufacturer on the homologated motorcycle.



- c) Steering stem pivot position must remain in the homologated position (as supplied on the production bike). If the standard bike has inserts then the orientation/position of the original insert may be changed but the insert cannot be replaced or modified.
- d) A steering damper may be added or replaced with an after-market damper.
- e) The steering damper cannot act as a steering lock limiting device.
- f) Fork caps on the mechanical forks may only be modified or replaced to allow external adjustment. (This does not include the mechanical fork leg that is part of the homologated electronic fork set).
- g) Dust seals may be modified, changed or removed if the fork remains totally oil-sealed.
- h) Mechanical forks: Original internal parts of the homologated forks may be modified or changed. After market damper kits or valves may be installed. The original surface finish of the fork tubes (stanchions, fork pipes) may be changed. Additional surface treatments are allowed.
- i) Electronic forks: The electronic front suspension may be replaced with a mechanical system from a similar homologated model from the same manufacturer.
- j) Electronic forks may have their complete internal parts (including all electronic control) replaced with a conventional damping system and it will be considered as a mechanical fork.

#### 4.6.10.4 Rear fork (Swing arm)

- a) The rear fork must remain as originally produced by the manufacturer for the homologated motorcycle.
- b) Rear fork pivot bolt must remain as originally produced by the manufacturer for the homologated motorcycle.
- c) Rear swingarm pivot position must remain in the homologated position (as supplied on the production bike). If the standard bike has inserts then the orientation/position of the original insert may be changed but the insert cannot be replaced or modified.

- d) A solid protective cover (shark fin) shall be fixed to the swing-arm, and must always cover the opening between the lower chain run, swing-arm and the rear wheel sprocket, irrespective of the position of the rear wheel.
- e) Rear wheel stand brackets may be added to the rear fork by welding or by bolts. Brackets must have rounded edges (with a large radius). Fastening screws must be recessed. An anchorage system or point(s) to keep the original rear brake calliper in place may be added to the rear swing-arm.
- f) The sides of the swing-arm may be protected by a thin vinyl cover only, no composite or structural covers are allowed.

#### 4.6.10.5 Rear suspension unit

- a) Rear suspension unit (shock absorber) may be modified or replaced, but the original attachments to the frame and rear fork (swing arm) (or linkage) must be as homologated.
- b) All the rear suspension linkage parts must remain as originally produced by the manufacturer for the homologated motorcycle.
- c) Removable top shock mounts must be the originally fitted and homologated part with no modification allowed. A nut may be made captive on the top shock mounts and shim spacers may be fitted behind it to adjust ride height.
- d) Mechanical suspension: Rear suspension unit and spring may be changed.
- e) Electronic suspension: If the standard system has no facility for ride height adjustment the standard shock may be modified to allow shock length change if no hydraulic parts are modified. The electronic shock absorber can be replaced with a mechanical one.

#### 4.6.10.6 Wheels

- a) Wheels must remain as originally produced by the manufacturer for the homologated motorcycle.
- b) The wheels may be overpainted but the original finish cannot be removed.

- c) A non-slip coating/treatment may be applied to the bead area of the rim.
- d) If the original design includes a cushion drive for the rear wheel, it must remain as originally produced for the homologated motorcycle.
- e) Wheel axles must remain as homologated, wheel spacers may be modified or replaced.
- f) Bearing spacers must remain as homologated.
- g) Wheel balance weights may be discarded, changed or added to.
- h) **Angled** aluminium or steel inflation valves are compulsory. ~~Angled valves are recommended.~~

#### 4.6.10.7 Brakes

- a) Brake discs may be replaced by aftermarket discs which comply with following requirements:
  - i) Brake discs must retain the same material as the homologated disc and carrier or Steel (max. carbon content 2.1 wt%).
  - ii) Non-floating or single piece discs may be replaced with floating discs. The disc carrier must be the same material as the homologated carrier, steel or aluminum.
  - iii) The outside and inner diameters of the brake disc must not be larger than the ones on the homologated disc.
  - iv) The thickness of the brake disc may be increased but the disc must fit into the homologated brake calliper without any modification. The number of floaters is free.
  - v) The fixing of the carrier on the wheel must remain the same as on the homologated disc.
- b) The front and rear brake calliper (mount, carrier, hanger) must remain as originally produced by the manufacturer for the homologated motorcycle.
- c) In order to reduce the transfer of heat to the hydraulic fluid it is permitted to add metallic shims to the callipers, between the pads and the callipers, and/or to replace light alloy pistons with steel pistons made by the same manufacturer of the calliper.



- d) The rear brake calliper bracket may be mounted fixed on the swing-arm, but the bracket must maintain the same mounting (fixing) points for the calliper as used on the homologated motorcycle.
- e) The swing-arm may be modified for this reason to aid the location of the rear brake calliper bracket, by welding, drilling or by using a helicoil.
- f) The front and rear master cylinder may be changed with aftermarket products. Front and rear brake fluid reservoirs may be changed with aftermarket products.
- g) An additional rear brake master cylinder can be installed on the left handlebar.
- h) Front and rear hydraulic brake lines may be changed. Brake line hose fittings (including banjo bolts) can only be Steel or Titanium.
- i) The split of the front brake lines for both front brake callipers must be made above the lower fork bridge (lower triple clamp).
- j) “Quick” (or “dry-brake”) connectors in the brake lines are allowed.
- k) Front and rear brake pads may be changed. Brake pad locking pins may be modified for quick change type.
- l) Additional air scoops or ducts are not allowed.
- m) The Antilock Brake System (ABS) may be used only if installed in the homologated model for road use. However, it must be completely standard (any mechanical or electronic part must remain as homologated, brake discs and master cylinder levers excluded), and only the software of the ABS may be modified.
- n) The Antilock Brake system (ABS) can be disconnected and its ECU can be dismantled. The ABS rotor wheel can be deleted, modified or replaced.
- o) Motorcycles must be equipped with brake lever protection, intended to protect the handlebar brake lever from being accidentally activated in case of collision with another motorcycle. Composite guards are not permitted. FIM approved guards will be permitted without regard of the material. The Technical Director has the right to refuse any guard not satisfying this safety purpose.

#### 4.6.10.8 Handlebars and hand Controls

- a) Handlebars may be replaced.
- b) Handlebars and hand controls may be relocated.
- c) Throttle controls must be self closing when not held by the hand.
- d) Throttle assembly and associated cables may be modified or replaced but the connection to the throttle body and to the throttle controls must remain as on the homologated motorcycle. Cable operated throttles (grip assembly) must be equipped with both an opening and a closing cable including when actuating a remote drive by wire grip/demand sensor.
- e) Clutch and brake lever may be replaced with an after-market model. An adjuster to the brake lever is allowed.
- f) Switches may be changed but the electric starter switch and engine stop switch must be located on the handlebars.
- g) Motorcycles must be equipped with a functional ignition kill switch or button mounted on the right hand handlebar (within reach of the hand while on the hand grips) that is capable of stopping a running engine. The button or switch must be RED.
- h) A thumb operated rear brake solution is allowed.

#### 4.6.10.9 Foot rest / Foot controls

- a) Foot rests, hangers/brackets and hardware may be replaced and relocated but the hangers/brackets must be mounted to their original frame mounting points.
- b) Foot controls; gear shift and rear brake must remain operated manually by foot.
- c) Foot rests may be rigidly mounted or a folding type which must incorporate a device to return them to the normal position.
- d) The end of the foot rest must have at least an 8 mm solid spherical radius.
- e) Non folding footrests must have an end (plug) which is permanently fixed, made of aluminium, plastic, Teflon® or an equivalent type material (minimum radius 8 mm). The plug surface must be designed to reach the widest possible area. The Technical Director has the right to refuse any plug not satisfying this safety aim.

#### 4.6.10.10 Fuel tank

- a) Fuel tank must remain as originally produced by the manufacturer for the homologated motorcycle.
- b) All fuel tanks must be completely filled with fire retardant material (open-celled mesh, i.e. Explosafe®).
- c) Fuel tanks with tank breather pipes must be fitted with non-return valves that discharge into a catch tank with a minimum volume of 250cc made of a suitable material.
- d) Fuel cap must be changed for a “screw type” cap to prevent accidental opening at any time. Fuel cap when closed must be leak proof.
- e) A rider spacer/pad may be fitted to the rear of the tank with nonpermanent adhesive. It may be constructed of foam padding or composite material.
- f) The tank may not have a cover fitted over it unless the homologated machine also features a full cover.
- g) The sides of the fuel tank may be protected with a cover made of a composite material. These covers must fit the shape of the fuel tank.
- h) Fuel tank cannot have heat reflective material attached to its bottom surface.

#### 4.6.10.11 Fairing / Body work

- a) Fairing and bodywork may be replaced with exact cosmetic duplicates of the original parts, but must appear to be as originally produced by the manufacturer for the homologated motorcycle, with slight differences due to the racing use (different pieces mix, fixing points, fairing bottom, etc). The material may be changed. The use of carbon fibre or carbon composite materials is not allowed. Specific reinforcements in Kevlar® or carbon are allowed locally around holes and stressed areas. Headlights must be included even when considered external.
- b) For all bodywork paint and decal design is free.
- c) Overall size and dimensions must be the same as the original part, with a tolerance of +/-10 mm, respecting the design and features of the homologated fairing as far as possible. The overall width of the frontal area may be +10 mm maximum. The decision of the Technical Director is final.



- d) Wind screen may be replaced with an aftermarket product. The height of the windscreen is free, within a tolerance of +/- 15 mm referred to the vertical distance from/to the upper fork bridge. The screen must conform to the same profile from the front as the original. From a top view the length of the windscreen may be shortened by 25 mm to allow clearance for the rider. The edge of the screen must have no sharp edges.
- e) The original combination instrument/fairing brackets may be replaced, but the use of titanium and carbon (or similar composite materials) is forbidden. All other fairing brackets may be altered or replaced.
- f) The ram-air intake must maintain the originally homologated shape and dimensions.
- g) The original air ducts running between the fairing and the air box may be altered or replaced. Carbon fibre composites and other exotic materials are forbidden. Particle grills or “wire-meshes” originally installed in the openings for the air ducts may be taken away.
- h) The lower fairing must to be constructed to hold, in case of an engine breakdown minimum 6 litres. The lower edge of all the openings in the fairing must be positioned at least 70 mm above the bottom of the fairing.
- i) There may be no exit air vents in the front half of the lower fairing below a line 40 mm below line between the wheel axles of the machine. The Technical Director may give permission for the lower fairing to have additional vents added if vents have been filled to meet the these and the oil containment requirements.

Any added vents will not allow the exit of air in the front half of the fairing lower if they are behind a water or oil radiator.
- j) Exceptions may be made to 4.6.10.11.i with the sole agreement of the Technical Director if a manufacturer produced and FIM approved close fitting, oil containing engine shroud is fitted in addition to the bellypan. In this case OEM shaped air vents will be allowed in the front lower half of the fairing.
- k) Any vents in the fairing lower must have their inner surface finish in-line with their outer surface or overlap to reduce the risk of liquid spraying from the machine.



- l) The upper edge of the rear transverse wall of the lower fairing must be at least 70 mm above the bottom. The angle between this wall and the floor must be  $\leq 90^\circ$ .
- m) Original openings for cooling in the lateral fairing/bodywork sections may be partially closed only to accommodate sponsors' logos/lettering. Such modification shall be made using wire mesh or perforated plate. The material is free but the distance between all opening centres, circle centres and their diameters must be constant. Holes or perforations must have an open area ratio  $> 60\%$ .
- n) Motorcycles may be equipped with a radiator shroud (inner ducts) to improve the air stream towards the radiator but the appearance of the front, the rear and the profile of the motorcycle must not be changed.
- o) The lower fairing must incorporate a single opening of  $\varnothing 25$  mm diameter in the front lower area. This hole must remain sealed in dry conditions and must be only opened in wet race conditions.
- p) Front mudguards may be replaced with a cosmetic duplicate of the original parts and may be spaced upward for increased tyre clearance.
- q) Rear mudguard and chainguard fixed on the swing arm may be modified, changed or removed.

#### 4.6.10.12 Seat

- a) Seat, seat base and associated bodywork may be replaced. The appearance from front, rear and profile must conform to the homologated shape.
- b) The top portion of the rear bodywork around the seat may be modified to a solo seat.
- c) The homologated seat locking system (with plates, pins, rubber pads etc.) may be removed.
- d) Same materials as fairings must be used (article 4.6.10.11.a).
- e) All exposed edges must be rounded.

#### 4.6.10.13 Fasteners

- a) Standard fasteners may be replaced with fasteners of any material and design but titanium fasteners cannot be used. The strength and design must be equal to or exceed the strength of the standard fastener.
- b) Fasteners may be drilled for safety wire, but intentional weight-reduction modifications are not allowed.
- c) Thread repair using inserts of different material such as helicoils and timeserts is allowed.
- d) Fairing/bodywork fasteners may be replaced with the quick disconnect type.
- e) Aluminium fasteners may only be used in non-structural locations.

#### 4.6.10.14 Rear Safety Light

All motorcycles must have a functioning red light mounted at the rear of the machine, to be used in rain or low visibility conditions. The team must ensure that the light is switched on any time the motorcycle is on the track or being ridden in the pit-line whenever a rain tyre is fitted on the motorcycle. All lights must comply with the following:

- a) Lighting direction must be parallel to the machine centre line (motorcycle running direction), and be clearly visible from the rear at least 15 degrees to both left and right sides of the machine centre line.
- b) The rear light must be mounted near the end of the seat/rear bodywork and approximately on the machine centre line, in a position approved by the FIM CEV Technical Director. In case of dispute over the mounting position or visibility, the decision of the Technical Director will be final.
- c) Power output/luminosity equivalent to approximately: 10 - 15 (incandescent), 0.6 - 1,8 W (LED).
- d) The output must be continuous - no flashing safety light whilst on track, flashing is allowed in the pit lane when pit limiter is active.
- e) Safety light power supply may be separated from the motorcycle.
- f) The Technical Director has the right to refuse any light system not satisfying this safety purpose.

#### **4.6.11 The following items MAY be altered or replaced from those fitted to the homologated motorcycle.**

- a) Any type of lubrication, brake or suspension fluid may be used.
- b) Gaskets and gasket materials.
- c) Instruments, instrument bracket(s) and associated cables.
- d) Painted external surface finishes and decals.
- e) Material for brackets connecting non original parts (fairing, exhaust, instruments, etc) to the frame (or engine) cannot be made from titanium or fibre reinforced composites excepting the exhaust silencer hanger that may be in carbon.
- f) Protective covers for the frame, chain, footrests, etc. may be made in other materials like fibre composite material if these parts do not replace original parts mounted on the homologated model.

#### **4.6.12 The Following Items MAY BE Removed**

- a) Emission control items (anti-pollution) in or around the air box and engine (O2 sensors, air injection devices).
- b) Bolt-on accessories on a rear sub frame.

#### **4.6.13 The Following Items MUST BE Removed**

- a) Headlamp, rear lamp and turn signal indicators (when not incorporated in the fairing). Openings must be covered by suitable materials.
- b) Rear-view mirrors.
- c) Horn.
- d) License plate bracket.
- e) Toolkit.
- f) Helmet hooks and luggage carrier hooks
- g) Passenger foot rests.
- h) Passenger grab rails.
- i) Safety bars, centre and side stands must be removed (fixed brackets must remain).
- j) Catalytic convertors.
- k) Rear mudguards affixed to the seat unit.

## 4.6.14 General Items

### 4.6.14.1 Materials

The use of titanium in the construction of the frame, the front forks, the handlebars, the swing-arms, the swing-arm spindles and the wheel spindles is forbidden. For wheel spindles, the use of light alloys is also forbidden. The use of titanium alloy nuts and bolts isn't allowed in this class.

- a) Titanium test to be performed on the track: magnetic test (titanium is not magnetic).
- b) The 3 % nitric acid test (titanium does not react. If metal is steel, the drop will leave a black spot).
- c) Specific weight of titanium alloys is between 4.5 and 5.0 kg/dm<sup>3</sup> vs, over 7.48 kg/dm<sup>3</sup> of steel and can be ascertained by weighing the part and measuring its volume in a calibrated glass filled with water (intake valve, rocker, connecting rod, etc).
- d) In case of doubt, the test must take place at a Material Testing Laboratory.

### 4.6.14.2 Handlebars and Control Levers

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

The minimum angle of rotation of the steering on each side of the centre line or mid position must be of 15°.

Whatever the position of the handlebars, the front wheel, tyre and the mudguard must maintain a minimum gap of 10 mm.

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

Repair by welding of light alloy handlebars is prohibited.

Composite handlebars are not allowed.

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 a independent pivot.

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

Modified rider controls will be considered for the mobility challenged subject to a report by the Medical director, the Technical Directors decision is final.

Clutch lever may have a guard fitted equivalent to a brake lever guard.

#### **4.6.14.3 Compulsory safety Items**

- a) All drain plugs must be lock wired (safety wired). External oil filter(s), screws and bolts that enter an oil cavity must be safety wired (i.e. on crankcases). The oil filter may optionally have a secondary retention mechanism.
- b) Where breather or overflow pipes are fitted they must discharge via existing outlets. The original closed system must be retained: no direct atmospheric emission is permitted.
- c) Motorcycles must be equipped with a red light on the instrument panel that will illuminate in the event of oil pressure drop.

#### **4.6.14.4 Ballast**

The use of ballast is allowed to stay over the minimum weight limit. The use of ballast must be declared to the Technical Director at the preliminary checks.

The ballast must be made of solid metallic piece/s, firmly and securely connected, either through an adapter or directly to the main frame or engine, with a minimum of two (2) steel bolts (min. 8 mm diameter, 8.8 grade or over). Other equivalent technical solutions must be submitted to the Technical Director for his/her approval.

Fuel in the fuel tank can be used as ballast. Nevertheless, the verified weight may never fall below the required minimum weight.

#### 4.6.14.5 Timekeeping instruments

Please refer to **Appendix 12**.

#### 4.6.14.6 Homologated Parts

Homologated parts are the OEM parts supplied fitted to the machine during manufacture and as delivered. Unless stated otherwise these parts may not be remade, refinished, treated, coated or modified in any way.

#### 4.6.14.7 Wings and Aerodynamic Aids

Wings and other aerodynamic aids will only be considered legal if originally fitted to the homologated road specification machine in all of Europe, ~~Japan~~ **Asia** and North America.

For race use the wings must follow the dimensions and profiles of the homologated shapes exactly (+- 2 mm). The leading edges (including end plates) must have a minimum circumference of 3 mm. all wings must have a rounded end (8 mm radius) or be enclosed/integrated into the fairing.

Alternatively the originally fitted and homologated wings may be used from the street bike without modification except to their fairing mounting.

The position of the wings must be +- 5 mm, angle of attack +- 2°.

#### 4.6.15 Rider's Safety Equipment

Refer to **Appendix 14**.

#### 4.6.16 Procedure for Technical Control

Refer to **Appendix 15**.

## 5.6 EUROPEAN TALENT CUP TECHNICAL SPECIFICATIONS

The following rules are intended to permit limited changes to the homologated motorcycle in the interests of safety and improved competition.

### **EVERYTHING THAT IS NOT AUTHORISED AND PRESCRIBED IN THIS RULE IS STRICTLY FORBIDDEN**

If a change to a part or system is not specifically allowed in any of the following articles, then it is forbidden.

The only model homologated is Honda NSF 250 R (Type MR03). All machines must be normally aspirated. All motorcycles must comply in every respect with all the requirements for road racing as specified in these Technical Regulations, unless they are already equipped as such on the homologated model.

The appearance from both front, rear and the profile of the motorcycles must (except when otherwise stated) conform to the homologated shape (as originally produced by the manufacturer). The appearance of the exhaust system is excluded from this rule.

### 5.6.1 Motorcycle specifications

All parts and systems not specifically mentioned in the following articles must remain as originally produced by the manufacturer for the homologated motorcycle

### 5.6.2 Displacement capacities

The following engine configurations comprise this class:

Honda NSF 250 R      4-stroke      1 cylinder

The displacement capacity, bore and stroke (new), must remain at the homologated size.

### 5.6.3 Minimum Weights

Refer also to **Appendix 15**.

Minimum total weight of Motorcycle + Rider: **146 kg**.

A limit to the amount of ballast that may be fixed to the machines of the lightest riders will be imposed: the minimum total weight will not be applied if the motorcycle's weight is ~~96~~ **94 kg** or more **if the rider is using airbag. If not, the motorcycle's weight must be 96 kg or more.**



**In any case, the motorcycle's minimum weight will be:**

- **If the rider is using airbag: 86 kg**
- **If the rider is not using airbag: 88 kg**

At any time of the event, the weight of the whole machine (including the tank and its contents) and rider, must not be lower than the minimum weight.

There is no tolerance on this minimum weight.

During the final technical inspection at the end of the race, the selected motorcycles and riders will be weighed in the condition they finished the race, and the established weight limit must be met in this condition. Nothing may be added to the motorcycle. This includes all fluids.

During the practice and qualifying sessions, riders may be asked to submit their motorcycle to a weight control. In all cases the rider must comply with this request.

The use of ballast is allowed to stay over the minimum weight limit and may be required due to the handicap system. The use of ballast and weight handicap must be declared to the Technical Director at the preliminary checks.

#### **5.6.4 Numbers and number plates**

The background colours and figures (numbers) for this class are white background with black numbers:

The sizes for all the front numbers are:	Minimum height:	140 mm
	Minimum width:	80 mm
	Minimum stroke:	20 mm
	Minimum space between numbers	10 mm

The size for all the side numbers is:	Minimum height:	120 mm
	Minimum width:	70 mm
	Minimum stroke:	25 mm
	Minimum space between numbers	10 mm



The allocated number (& plate) for the rider must be affixed on the machine as follows:

- a) once on the front, either in the centre of the fairing or slightly off to one side. The number must be centred on the white background with no advertising within 25 mm in all directions.
- b) once on each side of the motorcycle. Alternatively, once across the top of the rear seat section with the top of the number towards the rider. The rear and side numbers are optional. The preferred location for the numbers on each side of the motorcycle is on the lower rear portion of the main fairing near the bottom. The number must be centred on the white background.
- c) The numbers must use sufficiently legible fonts.
- d) The background colour must be clearly visible around all edges of the number (including outline). Reflective or mirror type numbers are not permitted.
- e) Numbers cannot overlap.
- f) No machine may enter the circuit if it does not meet the above regulations. If the rider does enter the circuit then no lap times will be recorded and Race Direction will at their discretion black flag the rider.

In case of a dispute concerning the legibility of numbers, the decision of the Technical Director will be final.

### **5.6.5 Fuel**

Refer to **Appendix 13**.

### **5.6.6 Tyres**

Only tyres from the official tyre supplier may be used in this class and each team must sign a contract.

**The quantity, specification and allocation of tyres will be determined by the official tyre supplier in consultation, and by agreement with, the Organisers and the Technical Director. Due to ongoing technical developments and changing conditions, the quantity, specification and allocation of tyres may be varied from time to time by mutual agreement.**



Only homologated tyres in each event are permitted. The tread pattern must be made exclusively by the manufacturer when producing the tyre. For each event, all tyres must be made of the same quality and shall be strictly identical.

During qualifying practices and race(s), rear tyres may be required to be marked with tyre stickers.

The Technical director may, at this discretion, require the exchange of one (1) or more competitors' tyres for a tyre sample under his control. The tyres exchanged remain under his/her control and he/she can exchange them for the ones of another competitor.

The use of tyre warmers is allowed.

The maximum number of rear slick tyres allowed to use during the qualifying practices are TWO (2). Only the rear slick tyres need to be marked with a tyre sticker.

A maximum of ONE (1) rear “dry” tyre per race may be used. Only the race rear “dry” tyres shall be marked with a code differentiable qualifying tyres.

The rain tyres will not need to be marked with a tyre sticker and will not be considered in the total number of tyres available for use.

During the preliminary technical inspection, **these stickers** will be delivered to the teams. Each team will be responsible of marking their tyres.

The Technical Stewards and/or the official tyre supplier may perform random controls during the qualifying practices and races. If the riders are shown a red flag during the practice or the race/s, the Permanent Race Direction is allowed to authorize the use of a supplementary tyre. All checked tyres must be easily identifiable with a colour marking or a numerical system. The technical director and/or his/her crew has the right to ask to the team in any moment, to show all their tyres used during the event.

In case of a technical problem, the Technical Director will take a decision about the problem.



## 5.6.7 Engine

- a) At any time, the Technical Director, under the supervision of Race Direction, may request a team that the engine used during a Qualifying Practice (QP) to be sealed and checked in a posterior inspection. This request must be submitted at any moment during the event and the team has the right to work in the engine maintenance until two (2) hours after this notification. This maintenance must be done with a technical steward present. At the end of this maintenance, the engine will be sealed.

### 5.6.7.1 Fuel Injection System

- a) The original homologated fuel injection system must be used without any modification. The nuts and washers that fix the throttle body to the cylinder head are excluded from this rule.
- b) The fuel injectors must be stock and unaltered from the original specification and manufacture.
- c) Air Funnels must remain as originally produced by the manufacturer for the homologated motorcycle.
- d) Butterfly valves cannot be changed or modified.
- e) Air and air/fuel mixture must go to the combustion chamber exclusively through the throttle bodies.
- f) Electronically controlled throttle valves, known as “ride-by-wire”, cannot be used.

### 5.6.7.2 Cylinder Head

- a) Must be the originally fitted and homologated part with no modification allowed.
- b) The gaskets may be changed.
- c) The valves, valve seats, guides, springs, tappets, oil seals, shims, cotter valve, rocker arms, spring base and spring retainers must be as originally produced and in the original position as supplied by the manufacturer of the homologated motorcycle.



- d) Only normal maintenance interventions as prescribed by the Manufacturer in the service manual of the motorcycle are authorized.
- e) Valve spring shims are not allowed.

#### **5.6.7.3 Camshafts**

- a) Must be the originally fitted and homologated part with no modification allowed.

#### **5.6.7.4 Cam sprockets**

- a) Must be the originally fitted and homologated part with no modification allowed.
- b) The cam chain and tensioner must remain as homologated.

#### **5.6.7.5 Cylinder**

Must be the originally fitted and homologated part with no modification except its height. The total height (included the cylinder and gasket) must be at least 0,2 mm. more than the standard motorcycle cylinder height.

#### **5.6.7.6 Pistons**

Must be the originally fitted and homologated part with no modification allowed.

#### **5.6.7.7 Piston rings**

Must be the originally fitted and homologated part with no modification allowed.

#### **5.6.7.8 Piston pin and Clips**

Must be the originally fitted and homologated part with no modification allowed.

#### **5.6.7.9 Connecting rod**

Must be the originally fitted and homologated part with no modification allowed.

#### **5.6.7.10 Crankshaft**

Must be the originally fitted and homologated part with no modification allowed.



### **5.6.7.11 Crankcase / Gearbox housing**

- a) Crankcases must remain as homologated. No modifications are allowed (including painting, polishing and lightening).
- b) It is not allowed to add a pump used to create a vacuum in the crankcase.

#### **5.6.7.11.1 Lateral covers and protection**

- a) Lateral (side) covers may not be altered, modified or replaced.
- b) All lateral covers/engine cases containing oil and which could be in contact with the ground during a crash, could be protected by a second cover made from metal, such as aluminium alloy, stainless steel, steel or titanium, composite covers are not permitted.
- c) The secondary cover must cover a minimum of 1/3 of the original cover. It must have no sharp edges to damage the track surface.
- d) Plates or crash bars made from aluminium or steel also are permitted in addition to these covers. All of these devices must be designed to be resistant against sudden shocks, abrasions and crash damage.
- e) FIM approved covers will be permitted without regard of the material or its dimensions.
- f) These covers must be fixed properly and securely with a minimum of three (3) case cover screws that also mount the original covers/engine cases to the crankcases.
- g) Oil containing engine covers must be secured with steel bolts.
- h) The Technical Director has the right to refuse any cover not satisfying this safety purpose.

#### **5.6.7.12 Transmission / Gearbox**

- a) Must be the originally fitted and homologated part with no modification allowed.
- b) Quick-shift systems are allowed (including wire and potentiometer).
- c) Countershaft sprocket, rear wheel sprocket, rear sprocket carrier hub, chain pitch and size may be changed.



### 5.6.7.13 Clutch

- a) Must be the originally fitted and homologated part with no modification allowed
- b) Friction and drive discs may be changed, but their number must remain as original.
- c) Helical clutch springs may be changed, but only the non-helical clutch springs can be eliminated.

### 5.6.7.14 Oil pumps and Oil lines

- a) Must be the originally fitted and homologated part with no modification allowed.

### 5.6.7.15 Radiator and cooling system

- a) The only liquid engine coolants permitted is water.
- b) The water radiator must be the originally fitted and homologated part with no modification allowed.
- c) Protective meshes may be added in front of the water radiator.
- d) The cooling system hoses and catch tanks may be changed.
- e) Radiator cap is free.
- f) **It can be added one heat exchanger (water/air) in the cooling hose with these maximum dimensions: Exposed Length: 70 mm. Diameter: 50 mm.**

### 5.6.7.16 Air box

- a) The air box (and its included ram-air intake) must remain as originally produced by the manufacturer on the homologated motorcycle.
- b) The air filter element may be modified or replaced but must be mounted in the original position. This element cannot be used to modify the air flow inside/outside the airbox.
- c) The air box drains must be sealed.



- d) All motorcycles must have a closed breather system. All the oil breather lines must be connected, may pass through an oil catch tank and must exclusively discharge in the airbox.
- e) No heat protection may be attached to the airbox.

#### **5.6.7.17 Fuel supply**

- a) Fuel pump and fuel pressure regulator must remain as homologated.
- b) The fuel pressure must be as homologated.
- c) Fuel lines from the fuel tank to the delivery pipe assembly (excluded) may be replaced and must be located in such a way that they are protected from crash damage.
- d) Quick connectors or dry break connectors may be used.
- e) Fuel vent lines may be replaced.
- f) Fuel filters may be added.

#### **5.6.7.18 Exhaust system**

- a) Exhaust pipes and silencers may be modified or changed.
- b) The number of the final exhaust silencers must remain as homologated. The exhaust pipe outlet must be on the same side of the homologated model.
- c) For safety reasons, the exposed edges of the exhaust pipe outlet must be rounded to avoid any sharp edges.
- d) Wrapping of exhaust systems is not allowed except in the area of the rider's foot or an area in contact with the fairing for protection from heat.
- e) Coating of exhaust systems is not allowed.
- f) The noise limit will be 115 dB/A (with a 3 dB/A tolerance after the race only).



### 5.6.7.19 Sound level control

Refer to Appendix 15.

#### 5.6.7.19.1 Sound limits in force:

Noise will be controlled at : Max. 115 dB/A measured in a static test at 5.500 rpm.

#### 5.6.7.19.2 Noise control after the competition

In a competition which requires a final examination of machines before the results are announced, this examination can include a noise control measurement of at least the first three machines listed in the final classification. At this final test, there will be a 3 dB/A tolerance.

### 5.6.8 Electrics and Electronics

#### 5.6.8.1 Ignition / Engine Control System (ECU)

- a) Central unit (ECU) must be the originally fitted and homologated part with no modification allowed.
- b) It isn't allowed to add injection modules that modify the inputs/outputs of the Central unit (ECU).
- c) The software used to modify the ECU must be the originally produced by the manufacturer for the homologated motorcycle.
- d) The parameters that the software itself provides for adjustment, cannot be extended and/or **exceeded** under any circumstances.
- e) The Technical Director could, at its discretion, download and analyze the files and maps of the Central Unit (ECU).
- f) Central unit (ECU) may be relocated.
- g) During an event the Technical Director has the right to ask a team to substitute their ECU with the sample received from the Manufacturer. The change has to be done before Sunday warm up.



- h) The data logging system is free. The data logger may not act to control any strategy or setting in the ECU. The logger may not automate these setting changes. The **maximum** number of inputs by external sensors allowed are:
1. Position and speed by GPS
  2. Engine temperature (water)
  3. Lambda signal
  4. TPS signal
  5. Engine RPM
  6. Rear Wheel speed
  7. Front Wheel speed
  8. Front brake pressure
  9. Rear brake pressure
  10. Front fork position
  11. Rear damper position
- i) The addition of a device for infrared (IR) transmission of a signal between the racing rider and his team, used exclusively for lap timing, is allowed.
- j) The addition of a GPS unit for lap timing/scoring purposes is allowed.
- k) Telemetry is not allowed.
- l) Harness must be the originally fitted and homologated part with no modification allowed except:
- a) Modifications are only allowed for data download proposal (Datalogger).
  - b) These modifications must be authorized by the Technical Director.
  - c) Map Selector and Pit-limiter switches are considered homologated parts of the harness. **Only the original switches (or identical copies) are permitted.**
  - d) **The rain light and STOP buttons have to be managed also with an original switch. An identical copy is permitted.**



m) The original temp meter and tachometer may be altered, replaced or eliminated. It can be replaced only by one of the authorized dashboards:

- 2D MiniDash - DI-KIT\_MID12-000
- AiM GS-Dash - X55GSDASH0
- AiM MXm - X87MXM0000
- Starlane Corsaro-R - CORS
- Starlane DaVinci-II r - CDAV2R
- GET D30-Evo - GK-D30EVO1-0001

It can be added a display/s for lap-timing and gear selection purposes only.

- n) The standard sensors of the ECU, cannot be changed, modified or eliminated.
- o) Spark plug may be replaced.
- p) A battery can be installed and connected with the sole purpose of feeding the Lambda sensor and the data logging system.

#### 5.6.8.2 Generator, alternator, electric starter

- a) The generator (ACG) must be the originally fitted and homologated part with no modification allowed.
- b) The stator must be fitted and connected to the wiring loom, in its original position and without offsetting.

#### 5.6.9 Main frame

Note: please also refer to **Appendix 15**.

During the entire duration of the event, each rider can only use one (1) complete motorcycle, as presented for Technical Control, with the frame clearly identified with a seal. In case the frame will need to be replaced, only if the frame is damaged, the rider or the team must request the use of a spare frame to the Technical Director. Other circumstances may be taken into account by Race Direction.

The pre-assembled spare part frame must be presented to the Technical Director for the permission of rebuilding. The pre-assembly shall be strictly limited to:

- Main frame
- Bearings (steering pipe, swing arm, etc)
- Swing arm
- Rear suspension linkage and shock absorber
- Upper and lower clamps (triple clamp, fork bridges)
- Wiring harness

The spare frame will not be allowed in the pit box before the rider or the team has received authorization from the Technical Director.

The rebuilt motorcycle must be inspected before its use by the technical stewards for safety checks and a new seal will be placed on the motorcycle frame.

No other spare machine may be at the track. If found, penalties will be applied. For the remainder of the event the machine will be impounded and no part of that machine may be used for spare parts.

Once the starting procedure is initiated, it isn't possible to verify a second motorcycle, neither in case of detention by red flag. In case of events with two races, once the first race is finished, the Technical Director may allow the request for verification of a second motorcycle.

#### **5.6.9.1 Frame body and Rear sub frame**

- a) The frame must remain as originally produced by the manufacturer for the homologated motorcycle.
- b) Holes may be drilled (or welding may be added) on the frame only to fix approved components (i.e. fairing brackets, steering damper mount, sensors).
- c) The sides of the frame-body may be covered by a protective part made of a composite material. These protectors must fit the form of the frame, but they must leave an empty place to add the technical control sticker close to the right side of the pivot frame.



- d) Crash protectors may be fitted to the frame, using existing points (max length: 50 mm), or pressed into the ends of the wheel axles (max length: 30 mm).
- e) Nothing else may be added or removed from the frame body.
- f) All motorcycles should display a vehicle identification number (chassis number).
- g) Engine mounting brackets or plates must remain as originally produced by the manufacturer for the homologated motorcycle.
- h) Rear sub frame may be changed or altered, to allow different riders, but the type of material must remain as homologated, or material of a higher specific weight.
- i) Additional seat brackets may be added, non-stressed protruding brackets may be removed if they do not affect the safety of the construction or assembly. Bolt-on accessories to the rear sub-frame may be removed.
- j) The paint scheme is not restricted but polishing the frame body or sub frame is allowed with the sole aim of improving its aesthetics.

#### 5.6.9.2 Front Forks

- a) Forks (stanchions, stem, wheel spindle, upper and lower crown, etc.) must remain as originally produced by the manufacturer for the homologated motorcycle.
- b) The upper and lower fork clamps (triple clamp, fork bridges) must remain as originally produced by the manufacturer on the homologated motorcycle, except:
  - 1. The lower fork clamp can be modified to improve the steering stops. Check also **Appendix 11**.
  - 2. The upper fork clamp can be drilled in order to screw a new brake fluid reservoir.
- c) Steering stem pivot position must remain in the homologated position (as supplied on the production bike).
- d) The steering damper may be eliminated or replaced with an after-market damper.



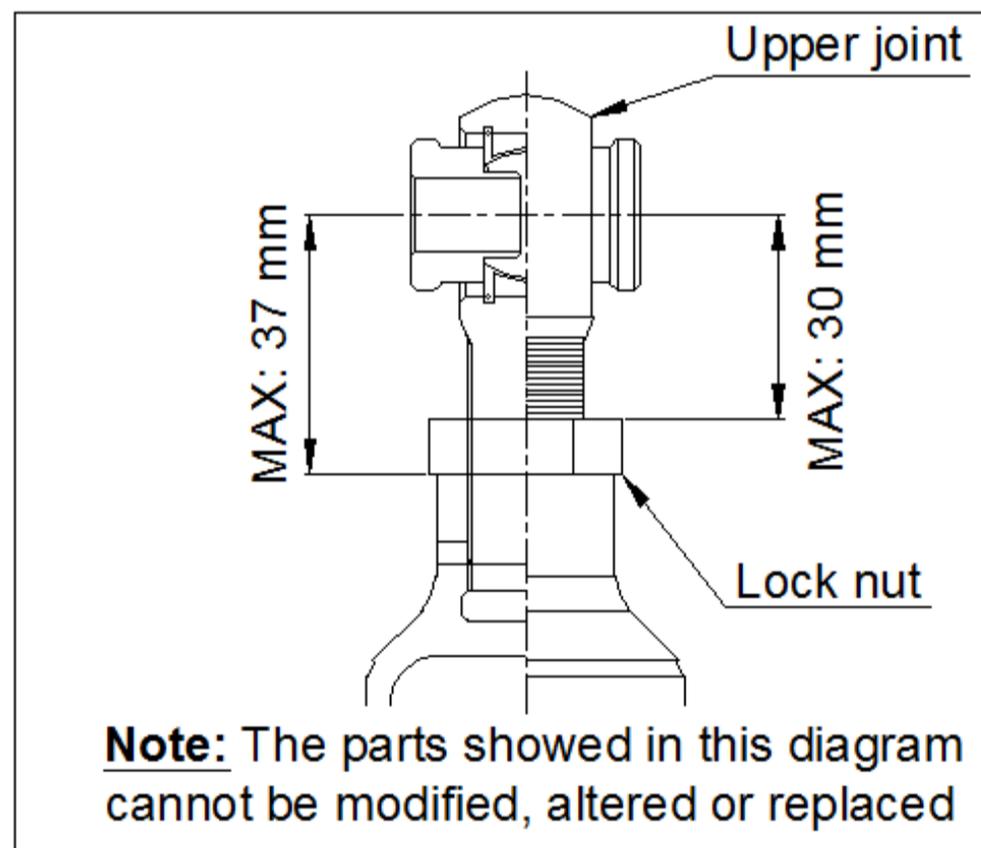
- e) The steering damper cannot act as a steering lock limiting device.
- f) Fork caps cannot be modified or replaced.
- g) Dust seals may be modified, changed or removed if the fork remains totally oil-sealed.
- h) The springs of the homologated forks may be modified or changed. Any quantity and quality of oil can be used. The original surface finish of the fork tubes (stanchions, fork pipes) cannot be changed. Additional surface treatments are not allowed.
- i) The inner parts of the cartridges can be modified or replaced. The external aspect cannot be modified, except adding holes, or enlarging existing holes. It's allowed to eliminate existing parts of the homologated cartridges, but those eliminated parts cannot be replaced with **non-original** ones. In any case, these modifications must be based on a homologated cartridge.

#### 5.6.9.3 Rear fork (Swingarm)

- a) The rear fork must remain as originally produced by the manufacturer for the homologated motorcycle. The paint scheme is not restricted but polishing the swingarm is allowed with the sole aim of improving its aesthetics.
- b) Rear fork pivot bolt must remain as originally produced by the manufacturer for the homologated motorcycle.
- c) Rear swingarm pivot position must remain as originally produced by the manufacturer for the homologated motorcycle.
- d) A solid protective cover (shark fin) shall be fixed to the swing-arm, and must always cover the opening between the lower chain run, swing-arm and the rear wheel sprocket, irrespective of the position of the rear wheel. The material of this cover is free.
- e) Rear wheel stand brackets may be added in the original position. Brackets must have rounded edges (with a large radius).
- f) The sides of the swing-arm may be protected by a thin vinyl cover only, no composite or structural covers are allowed.

#### 5.6.9.4 Rear suspension unit

- a) Rear suspension unit (shock absorber) cannot be externally modified or replaced and the original attachments to the frame and rear fork (swing arm) (or linkage) must be as homologated.
- b) All the rear suspension linkage parts must remain as originally produced by the manufacturer for the homologated motorcycle.
- c) Rear suspension spring may be changed. Any quantity and quality of oil can be used.
- d) The inner valves and piston of the hydraulic components can be modified or replaced.
- e) The total length of the shock absorber must remain between the limits recommended by the manufacturer for the homologated motorcycle. Please refer to diagram below:



### 5.6.9.5 Wheels

- a) Wheels can be changed or modified, but the only material allowed is aluminium alloys.
- b) The only permitted wheel rim sizes are:  
Front 2.50" x 17"  
Rear 3.50" x 17"
- c) A non-slip coating/treatment may be applied to the bead area of the rim.
- d) Wheel axles, bearings and wheel spacers may be modified or replaced.
- e) The use of titanium and light alloys in the construction of the wheel axes is forbidden.
- f) Wheel balance weights may be discarded, changed or added to.
- g) **Angled** aluminium or steel inflation valves are compulsory. ~~Angled valves are recommended.~~
- h) The use of any device on the wheel to adjust the tyre pressure whilst on track is prohibited.

### 5.6.9.6 Brakes

- a) Brake discs may be replaced by aftermarket discs which comply with following requirements:
  - i) Brake discs must retain the same material as the homologated disc and carrier or Steel (max. carbon content 2.1 wt%).
  - ii) The outside diameter of the front brake disc must be between 290 and 300 mm.
  - iii) The thickness is limited to 5,5 mm.
- b) The front brake calliper (mount, carrier, hanger) can be changed or modified. Monobloc calipers are forbidden.
- c) The pistons of the front brake caliper are limited to 36 mm of diameter. The only material allowed for this part is aluminium.



- d) In order to reduce the transfer of heat to the hydraulic fluid it is permitted to add metallic shims to the callipers, between the pads and the callipers, and/or to replace light alloy pistons with steel pistons made by the same manufacturer of the calliper.
- e) The front and rear master cylinder may be changed with aftermarket products. Front and rear brake fluid reservoirs may be changed with aftermarket products.
- f) An additional rear brake master cylinder can be installed on the left handlebar.
- g) Front and rear hydraulic brake lines may be changed. Brake line fittings (including banjo bolts) can only be Steel or Titanium.
- h) “Quick” (or “dry-brake”) connectors in the brake lines are allowed.
- i) Front and rear brake pads may be changed. Brake pad locking pins may be modified for quick change type.
- j) Additional air scoops or ducts are not allowed.
- k) Motorcycles must be equipped with brake lever protection, intended to protect the handlebar brake lever from being accidentally activated in case of collision with another motorcycle. Composite guards are not permitted. FIM approved guards will be permitted without regard of the material. The Technical Director has the right to refuse any guard not satisfying this safety purpose.

#### 5.6.9.7 Handlebars and hand controls

- a) Handlebars may be replaced.
- b) Handlebars and hand controls may be relocated.
- c) Throttle controls must be self closing when not held by the hand.
- d) Throttle assembly and associated cables may be modified or replaced but the connection to the throttle body and to the throttle controls must remain as on the homologated motorcycle. Cable operated throttles (grip assembly) must be equipped with both an opening and a closing cable.
- e) Clutch and brake levers may be replaced with an after-market model. An adjuster to the brake lever is allowed.



- f) Motorcycles must be equipped with a functional ignition kill switch or button mounted on the left or right hand handlebar (within reach of the hand while on the hand grips) that is capable of stopping a running engine. The button or switch must be RED. Refer to point 5.6.8.1 d).

#### 5.6.9.8 Foot rest / Foot controls

- a) Foot rests, hangers/brackets and hardware may be replaced and relocated but the hangers/brackets must be mounted to their original frame mounting points.
- b) Foot controls; gear shift and rear brake must remain operated manually by foot.
- c) Foot rests may be rigidly mounted or a folding type which must incorporate a device to return them to the normal position.
- d) The end of the foot rest must have at least an 8 mm solid spherical radius.
- e) **Non-folding** footrests must have an end (plug) which is permanently fixed, made of aluminium, plastic, Teflon® or an equivalent type material (minimum radius 8 mm). The plug surface must be designed to reach the widest possible area. The Technical Director has the right to refuse any plug not satisfying this safety aim.

#### 5.6.9.9 Fuel tank

- a) Fuel tank must remain as originally produced by the manufacturer for the homologated motorcycle.
- b) All fuel tanks must be completely filled with fire retardant material (open-celled mesh, i.e. Explosafe®).
- c) Fuel tank breather pipes must be fitted with non-return valves that discharge into a catch tank with a minimum volume of 200cc made of a suitable material. The original catch tank can be changed.
- d) Fuel cap must remain as originally produced by the manufacturer for the homologated motorcycle. Fuel cap when closed must be leak proof.
- e) A rider spacer/pad may be fitted to the rear of the tank with nonpermanent adhesive. It may be constructed of foam padding or composite material.



- f) The sides of the fuel tank may be protected with a cover made of a composite material. These covers must fit the shape of the fuel tank.
- g) The fixing point of the fuel tank to the frame can be reinforced.
- h) Fuel tank cannot have heat reflective material attached to its bottom surface.

#### 5.6.9.10 Fairing / Body work

- a) Fairing and bodywork may be replaced with exact cosmetic duplicates of the original parts, but must appear to be as originally produced by the manufacturer for the homologated motorcycle, with slight differences due to the different manufacturers (different pieces mix, fixing points, etc). The material may be changed. The use of carbon fiber or carbon composite materials is not allowed. Specific reinforcements in Kevlar® or carbon are allowed locally around holes and stressed areas.
- b) For all bodywork paint and decal design is free.
- c) Overall size and dimensions must be the same as the original part, with a tolerance of +/-10 mm, respecting the design and features of the homologated fairing as far as possible. The overall width of the frontal area may be +10 mm maximum. The decision of the Technical Director is final.
- d) Wind screen may be replaced with an aftermarket product. The height of the windscreen is free, within a tolerance of +/- 15 mm referred to the vertical distance from/to the upper fork bridge. The screen must conform to the same profile from the front as the original. From a top view the length of the windscreen may be shortened by 25 mm to allow clearance for the rider. The edge of the screen must have no sharp edges.
- e) Fairing brackets may be altered or replaced.
- f) Air ducts that could feed the airbox cannot be added to the fairing. The only air duct allowed is the one present in the airbox.
- g) The lower fairing must to be constructed to hold, in case of an engine breakdown minimum 2,5 litres. The lower edge of all the openings in the fairing must be positioned at least 70 mm above the bottom of the fairing.



- h) The upper edge of the rear transverse wall of the lower fairing must be at least 70 mm above the bottom. The angle between this wall and the floor must be  $\leq 90^\circ$ .
- i) Motorcycles may be equipped with a radiator shroud (inner ducts) to improve the air stream towards the radiator but the appearance of the front, the rear and the profile of the motorcycle must not be changed.
- j) The lower fairing may incorporate at least one (1) opening of  $\varnothing$  25 mm diameter in the front lower area. This hole must remain sealed in dry conditions and must be only opened in wet race conditions.
- k) Front mudguards may be eliminated or replaced with a cosmetic duplicate of the original parts and may be spaced upward for increased tyre clearance.
- l) Rear mudguards are forbidden.

#### 5.6.9.11 Seat

- a) Seat, seat base and associated bodywork may be replaced. The appearance from front, rear and profile must conform to the homologated shape. The length of the seat bodywork can be modified to allow taller riders.
- b) No part of the motorcycle may be behind a line drawn vertically at the edge of the rear tyre.
- c) The seat unit shall have a maximum height of the (approximately) vertical section behind the rider's seating position of 150 mm. The measurement will be taken at a  $90^\circ$  angle to the upper surface of the flat base at the rider's seating position, excluding any seat pad or covering.
- d) Same materials as fairings must be used (article 5.6.8.10.a).
- e) All exposed edges must be rounded.

#### 5.6.9.12 Fasteners

- a) Standard fasteners may be replaced with fasteners of any material and design but titanium fasteners cannot be used. The strength and design must be equal to or exceed the strength of the standard fastener.



- b) Fasteners may be drilled for safety wire, but intentional weight-reduction modifications are not allowed.
- c) Thread repair using inserts of different material such as helicoils and timeserts is allowed.
- d) Aluminium fasteners may only be used in non-structural locations.

#### **5.6.9.13 Rear Safety Light**

All motorcycles must have a functioning red light mounted at the rear of the machine, to be used in rain or low visibility conditions. The team must ensure that the light is switched on any time the motorcycle is on the track or being ridden in the pit-line whenever a rain tyre is fitted on the motorcycle. All lights must comply with the following:

- a) Lighting direction must be parallel to the machine centre line (motorcycle running direction), and be clearly visible from the rear at least 15 degrees to both left and right sides of the machine centre line.
- b) The rear light must be mounted near the end of the seat/rear bodywork and approximately on the machine centre line, in a position approved by the Technical Director. In case of dispute over the mounting position or visibility, the decision of the Technical Director will be final.
- c) Power output/luminosity equivalent to approximately: 10 - 15 (incandescent), 0.6 - 5 W (LED).
- d) The output must be continuous - no flashing safety light whilst on track, flashing is allowed in the pit lane when pit limiter is active.
- e) Safety light power supply may be separated from the motorcycle.
- f) The Technical Director has the right to refuse any light system not satisfying this safety purpose.

#### **5.6.10 The following items MAY be altered or replaced from those fitted to the homologated motorcycle.**

- a) Any type of lubrication, brake or suspension fluid may be used.
- b) Gaskets and gasket materials.
- c) Painted external surface finishes and decals.

- d) Material for brackets connecting non original parts (fairing, instruments, etc) to the frame (or engine) cannot be made from titanium or fiber reinforced composites excepting the exhaust silencer that may be in carbon.

#### **5.6.11 The Following Items MAY BE Removed**

- a) Bolt-on accessories on a rear sub frame.
- b) Front mudguard.

#### **5.6.12 General Items**

##### **5.6.12.1 Materials**

The use of titanium in the construction of the frame, the front forks, the handlebars, the swing-arms, the swing-arm spindles and the wheel spindles is forbidden. For wheel spindles, the use of light alloys is also forbidden. The use of titanium alloy nuts and bolts isn't allowed in this class.

- a) Titanium test to be performed on the track: magnetic test (titanium is not magnetic).
- b) The 3 % nitric acid test (titanium does not react. If metal is steel, the drop will leave a black spot).
- c) Specific weight of titanium alloys is between 4.5 and 5.0 kg/dm<sup>3</sup> vs, over 7.48 kg/dm<sup>3</sup> of steel and can be ascertained by weighing the part and measuring its volume in a calibrated glass filled with water (intake valve, rocker, connecting rod, etc.)
- d) In case of doubt, the test must take place at a Material Testing Laboratory.

##### **5.6.12.2 Handlebars and Control Levers**

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

The minimum angle of rotation of the steering on each side of the centre line or mid position must be of 15°. Refer to Fig.9 of Appendix 11.

Whatever the position of the handlebars, the front wheel, tyre and the mudguard must maintain a minimum gap of 10 mm. Refer to Fig.8 & 9 of Appendix 11.

Solid stops, (other than steering dampers) must be fitted to ensure a minimum clearance of 30 mm between the handlebar with levers and the tank, frame or other bodywork when on full lock to prevent trapping the rider's fingers. **Refer to Fig.8 & 9 of Appendix 11.**

Repair by welding of light alloy handlebars is prohibited.

Composite handlebars are not allowed.

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 the footrest being bent or deformed.

Modified rider controls will be considered for the mobility challenged subject to a report by the Medical director, the Technical Directors decision is final.

Clutch lever may have a guard fitted equivalent to a brake lever guard.

### 5.6.12.3 Compulsory safety Items

- a) All drain plugs must be lock wired (safety wired). External oil filter(s), screws and bolts that enter an oil cavity must be safety wired (i.e. on crankcases). The oil filter may optionally have a secondary retention mechanism.
- b) Where breather or overflow pipes are fitted they must discharge via existing outlets. The original closed system must be retained: no direct atmospheric emission is permitted.



#### **5.6.12.4 Ballast**

The use of ballast is allowed to stay over the minimum weight limit. The use of ballast must be declared to the Technical Director at the preliminary checks.

The ballast must be made of solid metallic piece/s, firmly and securely connected, either through an adapter or directly to the main frame or engine, with a minimum of two (2) steel bolts (min. 8 mm diameter, 8.8 grade or over). Other equivalent technical solutions must be submitted to the Technical Director for his/her approval.

Fuel in the fuel tank can be used as ballast. Nevertheless, the verified weight may never fall below the required minimum weight.

#### **5.6.12.5 Homologated Parts**

Homologated parts are the OEM parts supplied fitted to the machine during manufacture and as delivered. Unless stated otherwise these parts may not be remade, refinished, treated, coated or modified in any way.

#### **5.6.13 Timekeeping instruments**

Refer to Appendix 12.

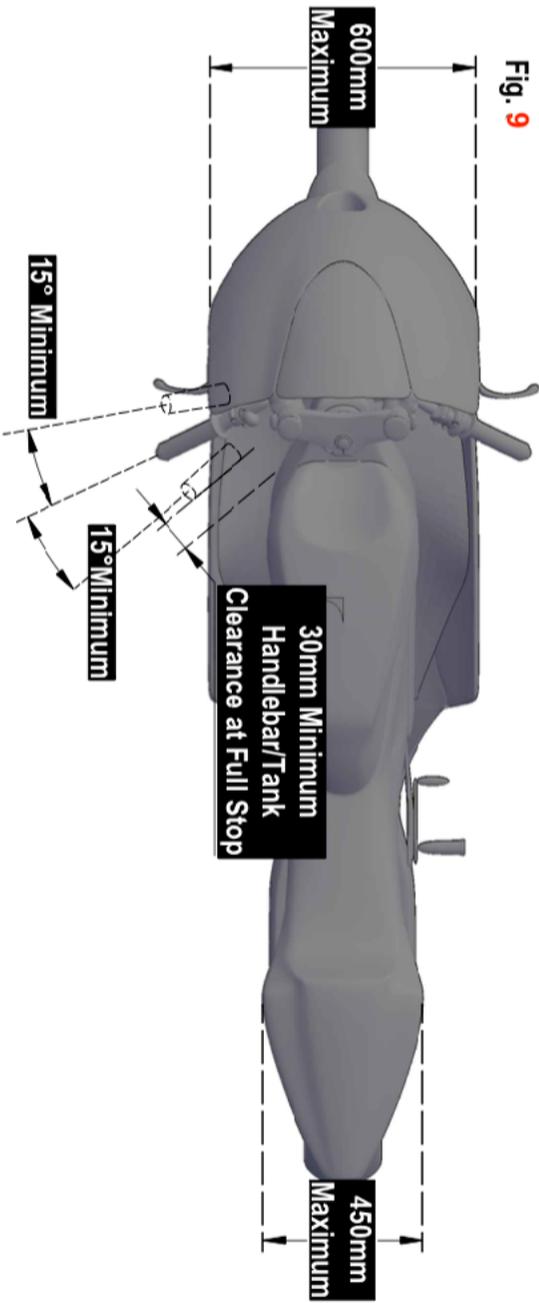
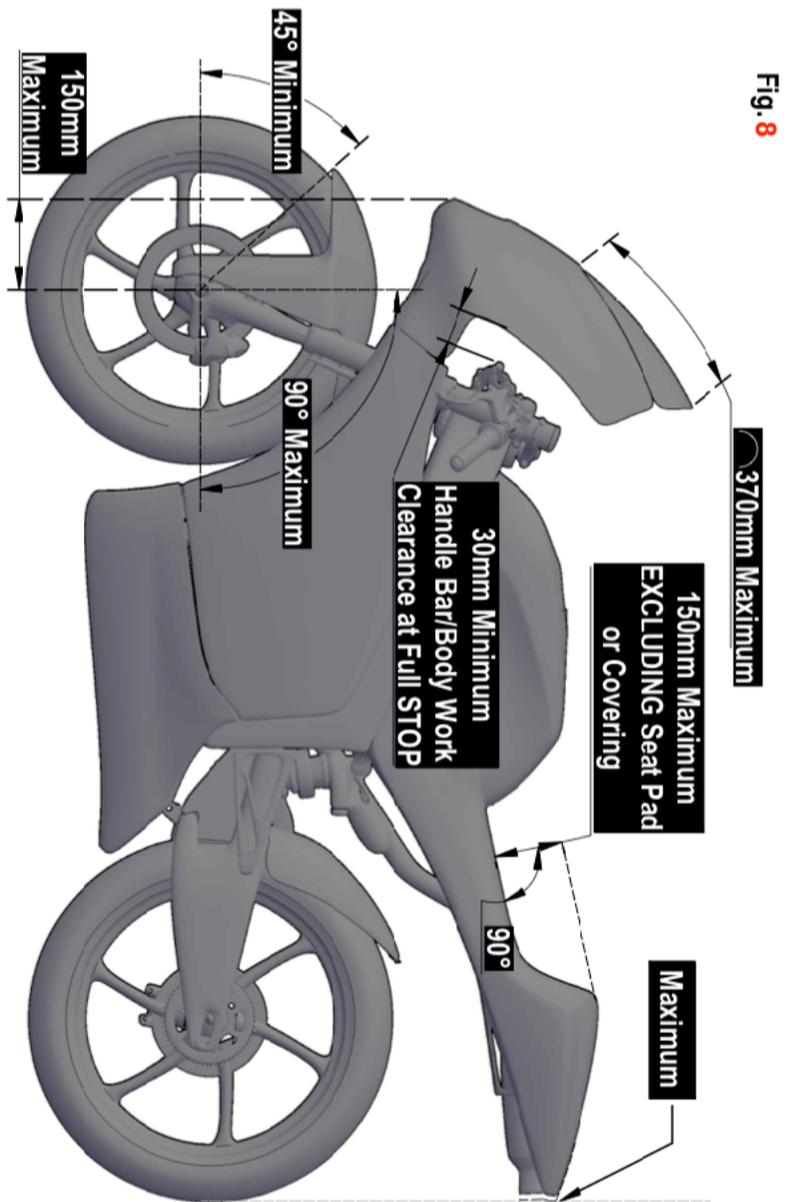
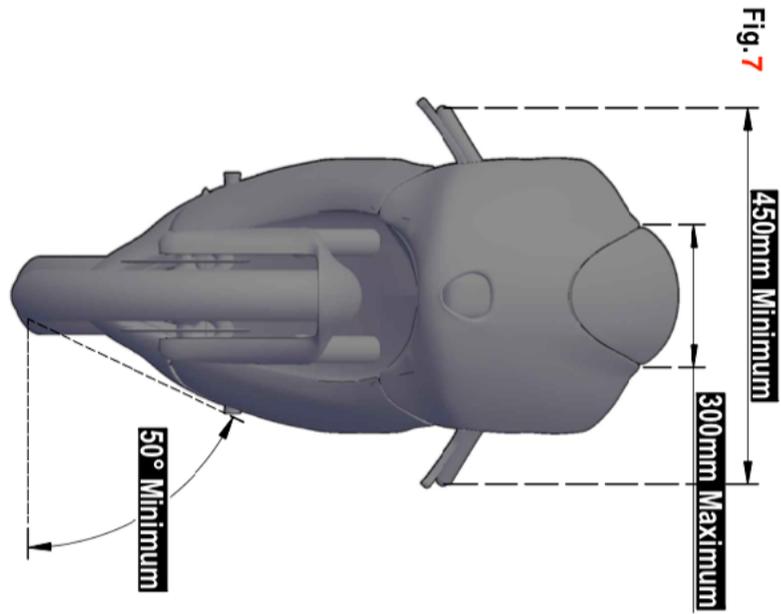
#### **5.6.14 Rider's Safety equipment**

Refer to Appendix 14.

#### **5.6.15 Procedure for Technical Control**

Refer to Appendix 15.

## General Appendix 11: Motorcycle frame





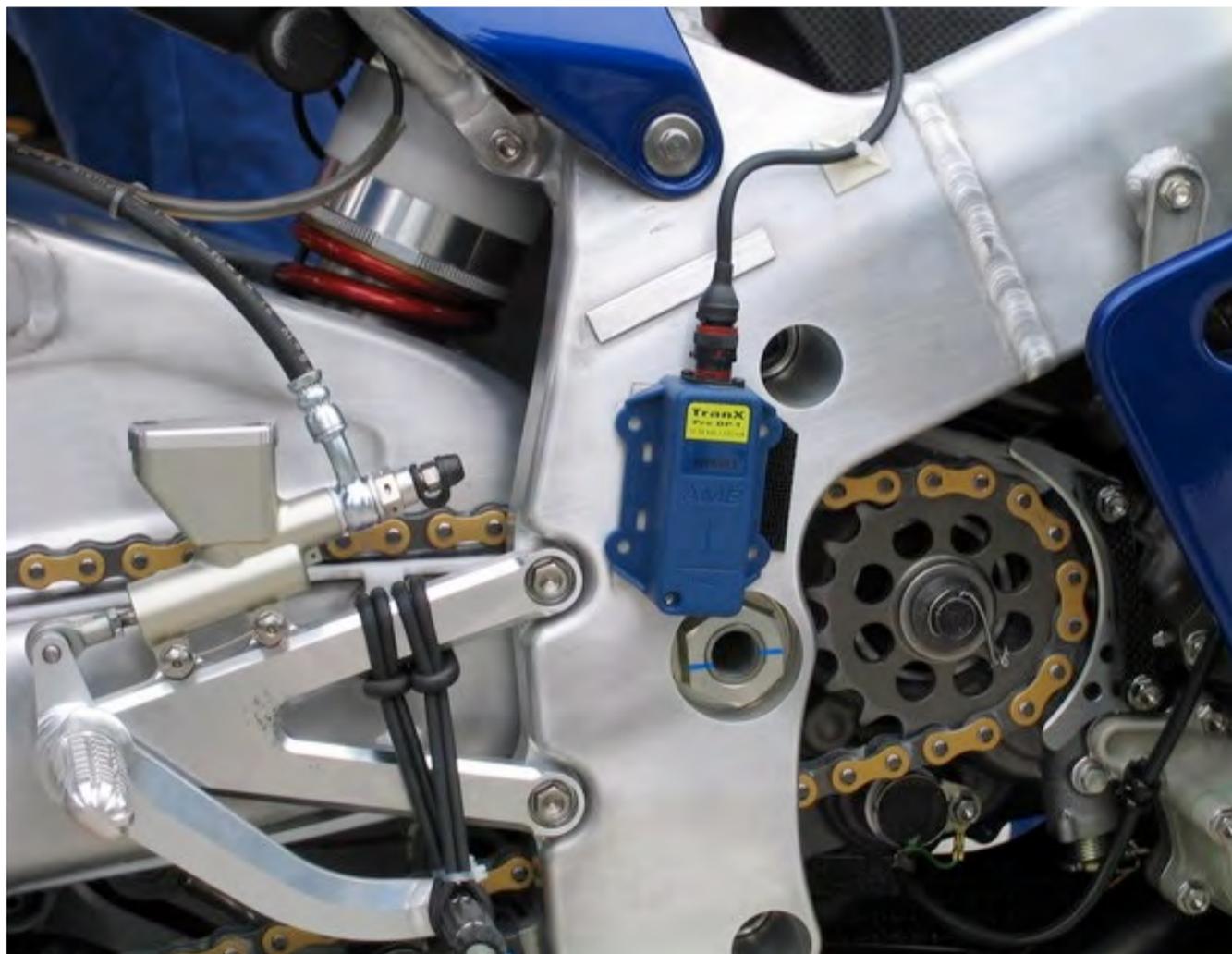
## General Appendix 12: Transponder Installation

- a) All machines must have a correctly-positioned timekeeping transponder, of the correct type. The transponders will not be handed out by the time keeping staff of the circuits any longer. For this reason, the purchase or hiring of the transponders are the solely responsibility of the teams. The models allowed are:
  - Tranx 2,
  - Tranx 260,
  - Tranx Pro DPI - DPT,
  - X2 Pro, X2 Pro plus and
  - X2 Club.
- b) The X2 transponder must be mounted on the front of the bike to optimize performance and cooling. Always use the supplied rubbers and top hats or mounting bracket to mount the transponder. The cable which connects to the transponder needs to be placed as close as possible to the transponder, on the same mounting area where the transponder is positioned. Avoid running any other cables and/or electronics in an area of 5 cm around the transponder as this will affect the transponder signal. There has to be a Kevlar® window in the fairing under the Transponder, as big as possible around the transponder area. The transponders cannot be mounted on or near the engine and/or the exhaust due to heat and vibrations. The transponder must always receive power supply; even in the case that the rider stops the bike.
- c) Transponders must be fully functional on the motorcycle as required by the Organiser, including wiring, power supply, and inputs / outputs for data or signals purposes.

## Installation of the model X2 Pro and X2 Pro Plus



## Installation of any other model



## General Appendix 13: Fuel Specifications

1. All motorcycles must be fuelled with unleaded petrol, which must comply with the specification below for each racing class.
2. Unleaded petrol will comply with the specification below if:
  - a) It has the following characteristics:

Property	Units	Min.*	Max.*	Test Method
RON		95.0	102.0	ISO 5164 or ASTM D2699
MON		85.0	90.0	ISO 5163 or ASTM D2699
Oxygen (includes 10% ethanol allowance)	% (m/m)		3.7	EN ISO 22854 <sup>1</sup> or EN 13132 or elemental analysis
Nitrogen	% (m/m)		0.2	ASTM D 4659 <sup>2</sup> or ASTM 5762
Benzene	% (v/v)		1.0	EN ISO 22854 or ASTM D6839 or ASTM D5880
Vapour Pressure (DVPE)	kPa		100.0	EN 13016-1 or ASTM D5191
Lead	mg/L		5.0	ICP-OES or AAS
Manganese	mg/L		2.0	ICP-OES or AAS
Density at 15 °C	kg/m <sup>3</sup>	720.0	785.0	EN ISO 12185 or ASTM D 4052
Oxidation Stability	minutes	360		EN ISO 7536 or ASTM D 525
Sulphur	mg/kg		10	EN ISO 20846 or ASTM D 5453
Distillation:				ISO 3405 or ASTM D86
E At 70°C	% (v/v)	20.0	52.0	
E At 100°C	% (v/v)	46.0	72.0	
E At 150°C	% (v/v)	75.0		
Final Boiling Point	°C		210.0	
Residue	% (v/v)		2.0	
Appearance	clear and bright and visually free from solid matter and undissolved water			visual inspection
Olefins(*)	% (v/v)		18.0	EN ISO 22854 or ASTM D6839
Aromatics(*)	% (v/v)		35.0	EN ISO 22854 or ASTM D6839
Total di-olefins	% m/m		1.0	GC-MS or HPLC



Oxygenates:				EN ISO 22854 <sup>1</sup> or EN 13132
Methanol	% (v/v)		3.0	The only oxygenates permitted are paraffinic mono-alcohols and paraffinic mono-ethers (8 of 5 or more carbon atoms per molecule) with a final boiling point below 210°C.
Ethanol (E10)	% (v/v)		10.0	
Isopropanol	% (v/v)		12.0	
Isobutanol	% (v/v)		15.0	
tert-Butanol	% (v/v)		15.0	
Ethers (C5 or higher)	% (v/v)		22.0	
Others	% (v/v)		15.0	

<sup>1</sup> In cases of dispute EN ISO 22854 will be the reference method.

<sup>2</sup> In cases of dispute ASTM D4629 will be the reference method.

\* All reported min. and max. thresholds do not include the tolerance, which needs to be calculated in accordance with ISO 4259 and taken into account to correct the min. and max. thresholds.

- b) The total of individual hydrocarbon components, containing only hydrogen and carbon, present at concentrations of less than 5% m/m must be at least 30% m/m of the fuel. The test method will be GC-FID (gas chromatography-flame ionization detector) and/or GC-MS (gas chromatography-mass spectrometry).
- c) The total concentration of naphthenes, olefins and aromatics in each carbon number group will not exceed the limits given in the following table.

% m/m	C4	C5	C6	C7	C8	C9+
Naphthenes	0	5	10	10	10	10
Olefins	5	20	20	15	10	10
Aromatics			1.2	35	35	30

Bicyclic and polycyclic olefins are not permitted. The fuel must contain no substances which are capable of exothermic reaction in the absence of external oxygen.



- d) In all classes, the fuel specification will be determined by the appointed fuel supplier in consultation with the Organisers and may be changed at any time by mutual agreement.

### **3. All classes fuel**

- a) Only fuel from the appointed fuel supplier is permitted. This fuel will be available at all official events, and will conform to this appendix specification. Use of this fuel without any addition or alteration is mandatory.

### **4. Fuel Sampling and Testing**

- a) The Technical Director will appoint a senior Technical Scrutineer to take responsibility for the administration and supervision of the fuel sampling procedure.
- b) Motorcycles selected for fuel controls will usually be amongst the first three finishers, and will be directed to the “parc fermé” for technical controls.
- c) Other finishers may be chosen at random for fuel controls. A Technical Scrutineer will be posted at the entrance to the pit box of the selected rider(s) whose machine must immediately accompany the Technical Scrutineer to the technical control area or “parc fermé”.
- d) The fuel to be tested will be transferred into two bottles, “A” and “B” identified by reference to the rider, team and machine from which the sample was taken. The bottles will be closed, sealed and labelled by the Technical Director and/or Technical Scrutineer.
- e) Only new bottles will be used for the samples and only new materials will be used to transfer the fuel.
- f) The Fuel Sample Declaration form will be filled out immediately, containing all necessary information, including the riders and machines identity, date and place of fuel sampling. A responsible team member will sign this declaration, after verifying that all the information is correct.



- g) Sample “A” will be sent to the official appointed laboratory, accompanied by a copy of the Fuel Sample Declaration form. The fuel sample will be compared with the approved fuel. If necessary the concentration of other elements, including lead, manganese, iron, nickel, nitrogen and oxygen may be measured at the request of the Technical Director to ensure that octane and power boosters have not been added.

If any observed deviations indicate that they are due to mixing with one other fuel, which has been approved by the FIM/Dorna for use by the team, the fuel sample will be deemed to comply, provided the fuel sample still falls within the specification as described in this appendix.

Costs for the analyses of sample “A” will be paid by FIM/Dorna.

- h) Sample “B” will be handed over to the FIM designated storage facility for safeguarding in case of protests and/or requirement of a counter analysis by the appointed laboratory. Costs for the analyses of sample “B” will be paid by the team concerned.
- i) Both samples will be transported by an authorised courier.
- j) The laboratory must deliver the results of the fuel sample analyses to the Technical Director, with a copy to the Race Direction, as soon as possible after receipt of the samples.
- k) In the case of non-conformity, the Technical Director must notify, as soon as practical after receipt of the results, the Race Direction, the FIM Administration and the rider/team representative concerned.

Within 48 hours of the receipt of the notification of the results of the laboratory test of sample “A”, the team must notify the Race Direction and the Technical Director if counter-expertise is required (or not required) for sample “B”.

The Race Direction will take a decision at the event immediately following the notification of the results of the final expertise. Any appeal against the decision of the Race Direction will be heard by the FIM Stewards appointed for the event at which the Race Direction decision is taken.



If there is no more events following the notification of the results of the final expertise, the Race Direction will take a decision as soon as practical. Any appeal against the decision of the FIM Stewards will be heard by the CDI appointed by the FIM for this specific task.

- l) The director of fuel analysis at the official laboratory must confirm to the Technical Director that the identification and the seal status of the “B” sample is correct before any B sample analysis is carried out.
- m) Failure of the sample to comply to approved petrol and/or the addition of octane and power boosters, as described in this Appendix, will automatically result in the disqualification of the competitor from the entire meeting.

The result of the competitor’s fuel sample analysis (“A” or “B” sample) more favourable to the competitor will be taken into account.

- n) Other specific tests can be suggested by the appointed fuel supplier in order to check if the fuel used is the one provided by the Championship fuel supplier.

These tests will be conducted by the Technical Director or his/her staff.

## 5. Fuel Temperature

In all classes, the fuel on the motorcycle must not be below the prevailing ambient temperature. Other than a simple removable fuel tank cover, the use of any device on the motorcycle to artificially decrease the fuel temperature below ambient temperature is forbidden.

## 6. Fuel Handling Safety

- a) The use of anti-static mats and grounding wrist straps is mandatory when filling fuel containers used for transferring fuel to and from motorcycles.
- b) The use of approved fuel fillers/fuel dumps is mandatory when adding or removing fuel to/from motorcycle fuel tanks.



## Gasoline Sample Declaration Form

	<p>FIM WORLD CHAMPIONSHIPS, CUPS AND PRIZE EVENTS</p> <p>Gasoline Sample Declaration Form</p>						
Discipline							
IMN(xxx/xx)							
Rider/team's name							
Rider/team's number							
Rider/team's email or telephone number							
Team							
Vehicle's make							
Gasoline's make and type							
Gasoline's origin (public station or race supplier)							
Gasoline samples taken on date (dd/mm/yy) and time (hh:mm)							
<p>Gasoline samples taken at (right before or after) on:</p> <p> <input type="checkbox"/> QP1                          <input type="checkbox"/> QP2                          <input type="checkbox"/> WARM UP                          <input type="checkbox"/> RACE N. _____                 </p>							
<table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td style="width: 40%;"></td> <td style="text-align: center;">Container seal n°</td> </tr> <tr> <td>Sample A</td> <td></td> </tr> <tr> <td>Sample B</td> <td></td> </tr> </table>			Container seal n°	Sample A		Sample B	
	Container seal n°						
Sample A							
Sample B							
<p>The above listed details refer to gasoline samples taken from the gasoline tank of the motorcycle specified.</p> <p>Sample A is the first testing sample to be used by the FIM appointed laboratory. Sample B can be used for a second analysis if required by the FIM.</p>							



The serial numbers of the vial seals and the accuracy of the listed information have been verified.	
Rider or Team responsible's name	
Rider or Team responsible's signature	
FIM Technical Director/FMNR Chief Technical steward's name	
FIM Technical Director/FMNR Chief Technical Steward's signature	

## General Appendix 14: Riders' equipment & FIM Helmets standards

1. It is compulsory that each contracted 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
- **Race Airbag (compulsory for JuniorGP riders and highly recommended for the other classes)**
- Gloves
- Boots
- Back Protector
- Chest Protector

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

The only purpose of any part of the rider's race suit, boots and gloves should be to protect the rider in an incident. Therefore, any part of these items of equipment that is deemed to be solely for the purpose of aiding the rider's aerodynamic effect will not be permitted. The decision of the Technical Director will be final in determining what constitutes an item solely for aerodynamic effect.

### 2. 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 (with or without airbag protection on the suit): must comply with EN1621-3, **Level 1 or 2.**
- b) At any time during the season, the Technical Director may request a piece of rider’s 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 while cornering), is permitted on the knees, elbows or any other parts of the race suit, where it is deemed necessary. They must not be manufactured from or contain any material that when in contact with the track surface may cause visual or other disturbance to other riders.

### 3. FIM Rider’s Equipment Minimum Requirements (REMR)

a) Standards for Helmet and Visor:

- Helmets must be of the full face type and be labeled:

Helmets must comply in all classes with the FIM helmet standard. A list of FIM Homologated helmets is available on [www.frhp.org](http://www.frhp.org).

See example of label below:



- Visors must be made of a shatterproof material.
- Disposable visor “tear-offs” are permitted.



#### b) Race Airbag:

- The use of race airbag during all qualifying sessions, warm-up and race(s) is compulsory for JuniorGP riders and highly recommended for the other classes.
- It has to be activated and with the cartridge(s) fully charged in every moment the rider during on-track activity.
- The race airbag must pass the FIM Requirements for Grand Prix Airbags 2018 available on [www.fim-moto.com/en/documents](http://www.fim-moto.com/en/documents).
- The updated list of race airbags can also be downloaded from [www.fim-moto.com/en/documents](http://www.fim-moto.com/en/documents).

#### 4. Post-crash Riders Safety Equipment Check

After a crash the 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 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 Technical Director, who may consult with the manufacturers of the product before making a final decision.

## General Appendix 15: Procedures for Technical Control

To ensure compliance with the technical regulations and appropriate control and checking procedures, the Technical Director may use outside third-party experts for certain checking and analysis.

The rider is at all times responsible for his/her motorcycle.

The Chief Technical Steward must be in attendance for an event at least 1 hour before the technical verifications are due to beginning. He must inform the Clerk of the Course, the Race Director and the Technical Director of his arrival.

He must ensure that all Technical Stewards, appointed for the event, carry out their duties in a proper manner.

He shall appoint the Technical Stewards to individual posts for the race, practices and final control.

The rider, or his mechanic, must be present with the motorcycle for Technical control within the time limits stated in the Time Schedule. The maximum number of persons present at the technical verification will be the rider, plus two others. In addition, the Team Manager will also be allowed.

The Technical Director/Chief Technical Steward must inform the Race Director of the results of the Technical control. The Technical Director/Chief Technical Steward will then draw up a list of accepted motorcycles and submit this list to the Clerk of the Course.

The Technical Director/Chief Technical Steward have the right to inspect any part of the motorcycle at any time of the event.

Any rider failing to report as required below may be disqualified from the event. Race Direction may forbid any team who does not comply with the rules, or any rider who may be a danger to other participants or to spectators, to take part in the practice sessions or in the races.

The Technical Control must be carried out in accordance with the procedure and times fixed in the General Information of the event.



The Technical Director/Chief Technical Steward will refuse any motorcycle that does not have a correctly-positioned positive transponder attachment. The transponder must be fixed to the motorcycle as described in **Appendix 12**.

The rider or the mechanic shall present a clean motorcycle and in conformity to the FIM rules. He shall also present the helmet, gloves, boots and leather.

An overall inspection of the motorcycle must be carried out in conformity with the FIM rules. Accepted motorcycles will be marked with paint or a sticker.

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.

Before each practice the Chief Technical Steward can confirm that the motorcycle has passed the Technical Control by checking the Technical Control sticker before the motorcycles go on the track.

Only accepted motorcycles may be used in practices and races.

Approximately 30 minutes after the Technical control have been completed, the Technical Director/Chief Technical Steward must submit to the Race Direction a list of accepted motorcycles and riders.

If a motorcycle is involved in an accident, the Technical Director/Chief Technical Steward may check the motorcycle, together with the helmet and clothing of the rider involved, to ensure that no defect of a serious nature has occurred. If a motorcycle was stopped with a Black Flag with Orange Disc, the Technical Director/Chief Technical Steward must check the motorcycle. In both cases, it is the responsibility of the team to present the motorcycle (together with helmet and clothing of the fallen rider) for his re-examination in case they wish to continue. If the helmet is clearly defective, the Chief Technical Steward must retain this helmet. The Promotor can send this helmet, together with the accident and medical report (and pictures and video, if available) to the Federation of the rider. If there are head injuries stated in the medical report, the helmet then must be sent to a neutral institute for examination.



The team can scrutineer only one motorcycle per rider.

If during the official practice sessions a motorcycle suffers any damages that are difficult to repair in the circuit, the Technical Director could allow a second motorcycle to be presented for a technical inspection. The process of authorizing a new machine to be used is not possible during a practice session. Once the starting procedure is initiated, it is not possible to verify a second motorcycle, neither in case of detention by red flag. In case of events with two races, once the first race is finished, the Technical Director may allow the request for verification of a second motorcycle.

Once the official practice sessions have started, only the motorcycle that has gone under the technical inspection will be allowed to be inside the box.

The Technical Director may require a team to provide such parts or sample as he may deem necessary.

In the case that a machine fails post-qualifying or post-race technical checks due to damage or technical issues on-track, the following protocol will apply, always at the sole discretion of the Technical Director.

1. Machines under the minimum weight limit due to:
  - a) Loss of fluid:
    - i) If the Technical Director has verified that there is physical evidence of fluid loss due to an incident or mechanical issue on track, he may approve the fluid to be replenished to the levels as declared by the Manufacturer at the start of the season.
    - ii) If it is necessary to replace a damaged part to accommodate the fluid (eg. radiator), this will be permitted only under the supervision of the Technical Director who will confirm that the new part is identical to the damaged part.



- b) Loss of material or parts:
  - i) If the Technical Director has verified that the machine has lost a part or material due to an incident or mechanical issue on track, he may approve the replacement of the part(s) with the following conditions:
  - ii) The Technical Director must verify that any new parts are identical to the original.
  - iii) If the Technical Director determines that there is insufficient physical evidence to prove that a part or material is missing, then the original part must be found before it can be replaced.
  - iv) Missing ballast weights will only be permitted to be replaced if they are found and returned to Technical Control by the circuit officials.

## 2. Machines exceeding the maximum noise levels:

- i) If the Technical Director is satisfied that there is sufficient physical evidence of damage or loss due to an incident or mechanical issue on track, he may approve the replacement of the missing or damaged exhaust parts, and the machine to be re-tested.

### Noise tests

1. Noise tests must be conducted in an open area with a space of at least 10 metres between the motorcycle being tested and walls or other obstacles. There should be a minimum amount of ambient noise in the area.
2. The measuring equipment must be calibrated prior to the test and recalibrated at regular intervals.
3. The measuring equipment should be placed 50 cm from the end of the exhaust pipe and at 45 degree angle to the pipe either to the side or above.
4. The maximum noise level at all times is prescribed in the Technical Rules of each Class.

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

#### **3.1 PRINCIPLES**

All the following rules apply for all classes (JuniorGP WC, Moto2 EC and ETC) except when the context requires otherwise it is then, clearly specified.

##### **3.1.1 For JuniorGP World Championship**

The obligations incumbent upon the participants, officials and organisers are set out in the Regulations published by the FIM. Proven violation or non-observance of these obligations will be subject to the penalties laid down in this chapter.

##### **3.1.2 For Moto2 European Championship and European Talent Cup**

The obligations incumbent upon the participants, officials and organisers are set out in the Regulations published by the FIM Europe. Proven violation or non-observance of these obligations will be subject to the penalties laid down in this chapter.

The duties powers and responsibilities of the bodies and delegates of the FIM Europe are set out in FIM Europe Statutes and By Laws. In case of any provision not foreseen in FIM Europe Statutes or By Laws, FIM Codes and By Laws are to be applied.

Similarly, the obligations incumbent upon the participants, officials and organisers of sporting and eventually touring events connected under FIM Europe control are set out in the rules of the different sporting and touring disciplines or in any other rules and regulations which are or may be introduced and published by the FIM Europe. All people involved in the activity of the FIM Europe, both sporting and non-sporting, as well as the member of its organs, must adhere to its rules and keep an irreproachable behaviour in the carrying out of their respective duties, so as to avoid any possible prejudice to the honourableness of the FIM Europe and of its members. Proven violation or non-observance of these obligations will be subjected to the penalties laid down in the FIM Europe Disciplinary and Arbitration Code.

## 3.2 PENALTIES

The penalties are:

- warnings
- fines
- change of position
- ride through
- long lap(s) penalty
- time penalties
- grid penalty
- disqualification
- withdrawal of Championship points
- suspension
- exclusion

### 3.2.1 Definition and application of penalties

**Warnings:** can be made privately or publicly, and can be made without a hearing.

**Fines:** cash penalty up to 50'000€

A fine of up to 1'000 Euros can be imposed without a prior hearing being necessary.

However, the right of **appeal** remains as set out in **Art. 3.4.2**.

**Change of position:** the rider must go back the number of positions decided by the Race Direction.

**Ride through:** the rider must complete the ride through procedure via de pit lane as defined in Art. 1.19.1.

**Long lap(s) penalty:** the rider must complete the pre-defined route of the Long Lap under the conditions as defined in Art. 1.19.2.

**Time penalties:** the imposition of time affecting the rider's actual result up to 2 minutes and the cancellation of time.

- Grid penalty:** the imposition of a drop of any number of grid positions or the imposition of starting the race from the pit lane exit at the rider's next race or next event.
- A grid positions penalty may be imposed without a prior hearing being necessary.
- However, the right of **appeal** remains as set out in **Art. 3.4.2.**
- Disqualification:** entails automatically and independently of any other penalty, the invalidation of the results obtained in an event, practice, race or ranking.
- An immediate disqualification from a practice session or a race may also be pronounced by means of a black flag or a black flag with orange disc.
- Withdrawal of championship points:** the loss of points from the Championship races already run.
- Suspension:** entails the loss of rights to participate for a specified period of time in any activity under FIM/FIM Europe control.
- The application of this penalty may also be applied in the Championship to one or more practice sessions (or part thereof), or races.
- A suspension penalty from one or more official practice sessions (or part thereof) of the event may be imposed without a prior hearing being necessary. However, the right of **appeal** remains as set out in **Art. 3.4.2.**
- Exclusion:** the final and complete loss of all rights of participation in any activity under FIM/FIM Europe control.



### **3.2.2 Plurality of penalties**

Any offender may have several penalties pronounced against him according to the circumstances.

## **3.3 THE DISCIPLINARY AND ARBITRATION BODIES**

### **3.3.1**

The disciplinary and arbitration bodies of the FIM for **JuniorGP** World Championship, qualified to deal with disciplinary and arbitration matters, are:

- The Race Direction
- The FIM Stewards
- The International Disciplinary Court (CDI)

### **3.3.2**

The disciplinary and arbitration bodies of the FIM Europe for Moto2 European Championship and for European Talent Cup, qualified to deal with disciplinary and arbitration matters, are:

- The Race Direction
- The FIM Europe Stewards
- The FIM Europe Disciplinary Commission
- The International Disciplinary Court (CDI)

### **3.3.3 The Race Direction**

#### **3.3.3.1 Constitution**

The Constitution of the Race Direction is in accordance with the requirements laid down in Art. 1.6.

### 3.3.3.2 Authority and Competence

The Race Direction has the authority to penalise automatically riders, teams' personnel, officials, promoters/organisers and all the persons involved in any capacity whatsoever in an event or in the Championship, for:

- infringements of the Regulations.
- any voluntary or involuntary action or deed accomplished by a person or a group of persons during a meeting, contrary to the current Regulations or instructions given by an official of the meeting.
- any corrupt or fraudulent act, or any action prejudicial to the interests of the meetings or of the sport, carried out by a person or a group of persons occurring during an event.
- any voluntary or involuntary action of Officials and Promoters/Organisers for having been unable to ensure the smooth and efficient running of the event or for serious breaches of the Regulations and Protocols covering the event organisation.

The Race Direction is competent to adjudicate upon a protest relating to infringements of the Regulations.

### 3.3.3.3 Penalties that may be pronounced by the Race Direction

The following penalties may be pronounced by the Race Direction:

- a warning
- a fine
- a change of position
- a ride through
- a long lap(s) penalty
- a time penalty
- a grid penalty
- a disqualification
- a withdrawal of Championship points
- a suspension

Furthermore, for **JuniorGP** World Championship, the Race Direction can refer the case to the International Disciplinary Court (CDI) in order to impose a higher penalty than the Race Direction is empowered to do.

For Moto2 European Championship and European Talent Cup, the Race Direction may refer the case to the FIM Europe Disciplinary Commission in order to impose a higher penalty that the Race Direction is empowered to do.

Any fines must be paid in full by the rider via bank transfer to the **FIM/FIM Europe** bank accounts (**cf Notification of Sanction**) before the next event of the Championship/Cups series and in any case **the latest** within **30 days**. If the full amount of the fine is not paid within these time limits, the rider will automatically be suspended from participation in all **FIM/FIM Europe** activities until such time as the full payment has been received by the **FIM/FIM Europe**.

### **3.3.4 The FIM/FIM Europe Stewards Panel**

#### **3.3.4.1 Constitution**

The Constitution of the FIM Stewards Panel is in accordance with the requirements laid down in Art. 1.7.

#### **3.3.4.2 Authority and Competence**

The FIM Stewards Panel will hear any appeals against decisions taken by the Race Direction.

The FIM Stewards may confirm or overturn a decision of the Race Direction, or impose a different penalty according to the penalties described in **Art. 3.3.4.3**.

#### **3.3.4.3 Penalties that may be pronounced by the FIM Stewards Panel only following an appeal:**

- a warning
- a fine
- a change of position
- a ride through
- a long lap(s) penalty
- a time penalty
- a grid penalty
- a disqualification
- a withdrawal of Championship points
- a suspension

Furthermore, for **JuniorGP** World Championship, the FIM Steward Panel can refer the case to the International Disciplinary Court (CDI) if it appears impossible to deal with the case for any valid reason or in order to impose a higher penalty than the FIM Stewards Panel is empowered to do. Such a decision will be justified in writing by the FIM Stewards.

For Moto2 European Championship and European Talent Cup, the FIM Steward Panel can refer the case to the FIM Europe Disciplinary Commission if it appears impossible to deal with the case for any valid reason or in order to impose a higher penalty than the FIM Europe Stewards Panel is empowered to do. Such a decision will be justified in writing by the FIM Stewards.

**Any fines must be paid in full by the rider via bank transfer to the FIM/FIM Europe bank accounts before the next event of the Championship/Cups and in any case the latest within within 30 days. If the full amount of the fine is not paid within these time limits, the rider will automatically be suspended from participation in all FIM/FIM Europe activities until such time as the full payment has been received by the FIM/FIM Europe.**

### **3.3.5 The List of International Judges**

The List of International Judges (LJI) is composed of qualified persons from which the members of the International Disciplinary Court (CDI) or Arbitration and Advisory Tribunal (TAC) are nominated.

#### **3.3.5.1 Constitution**

The List of International Judges (LJI) shall consist of members put forward by FMNs. The appointments shall be confirmed by the General Assembly for 4-year periods pursuant to Art. 12.1.7.q of FIM Statuts.

#### **3.3.5.2 Qualifications**

In order to qualify for appointment to the List of International Judges (LJI), a candidate must be in possession of a diploma in Law studies of University level. He must be able to express himself in at least one of the official languages of the FIM. He cannot however be an officer or a licence holder of the FIM.



### **3.3.6 The FIM Europe Judicial Panel for Moto2 European Championship and European Talent Cup**

#### **3.3.6.1 Constitution**

The Panel is composed of five jurists, elected by the General Assembly and proposed by the Management Council, for a period of four years.

The Chairman will be nominated by the Management Council from the members of the Panel. The Panel may appoint one Vice-Chairman amongst its members (SEE Art. 3.2.1 of FIM Europe Disciplinary Code).

#### **3.3.6.2 Qualifications**

In order to qualify for appointment to the FIM Europe Judicial Panel, a candidate must be in possession of a diploma in Law granted after studies at University level. He must be able to express himself in at least one of the official languages of the FIM Europe.

### **3.3.7 The FIM Europe Disciplinary Commission for Moto2 European Championship and European Talent Cup**

#### **3.3.7.1 Authority**

The Disciplinary Commission will hear appeals against decisions taken by the FIM Europe Stewards following a protest.

The Disciplinary Commission may impose sanctions without any restrictions of amount or of time based on the previous decisions taken by the FIM Europe Stewards as provided for in Art. 3.3.4.3.

Violation or non-observance of the FIM Europe rules and regulations are referred in the first instance to the FIM Europe Disciplinary Commission by the more diligent party.

#### **3.3.7.2 Composition and Procedure**

The President of the Judicial Panel, after having established that the procedures have been followed and/or that the case can be heard, will appoint members to form the appropriate Disciplinary Commission. For each case, the FIM Europe Disciplinary Commission is made up of 1 or 3 judges.

The names of the members appointed must be communicated to all interested parties in the case, who have the right to refuse with due justification totally or partially the composition of the Court, within three days after having received the information. If the President considers that a reasonable refusal is made, he must appoint the necessary replacements among other judges of the Judicial Panel. Otherwise he will have to justify his decision.

During all procedures brought to the FIM Europe Disciplinary Commission it will be possible for the FIM Europe to express its position in a written report.

### **3.3.8 The Court of Appeal for all classes**

In the case of an appeal against a decision taken by the FIM Stewards in JuniorGP WC or the FIM Europe Disciplinary Commission in Moto2 EC and ETC, the Court of final jurisdiction shall be the International Disciplinary Court (CDI) of the FIM.

### **3.3.9 The International Disciplinary Court (CDI) for all classes**

#### **3.3.9.1 Appointment of the Members**

For each case, and with the exception of the Anti-Doping cases, the CDI is made up of 1 to 3 members appointed by the Director of the List of International Judges (LJI) of the FIM will appoint each time, the President and the members who will constitute the CDI.

#### **3.3.9.2 Procedures**

The names of the members appointed must be communicated to all interested parties in the case, who have the right to make a duly documented objection to the composition of the Court, either in total or in part, within three days after having received the information. If the Executive Board of the FIM considers that a reasonable objection is made, they must appoint the necessary replacements. Otherwise they reject the objection and fix the date for the hearing.

The court may request the opinion of an expert or summon a witness who it considers useful.



### **3.3.9.3 Authority and Competences**

The CDI will hear any appeals against decisions taken by the FIM Stewards in JuniorGP WC.

The CDI will hear any appeals against decisions taken by the FIM Europe Disciplinary Commission in Moto2 EC and ETC.

The CDI adjudicates upon request of the Race Direction or the FIM Steward Panel.

After a meeting, the President of the FIM, the Executive Board or the Board of Directors may, within 5 days, refer to the CDI, matters of violation or infringement of the FIM regulations not concerning sporting or technical regulations.

Violation or non-observance of FIM rules and regulations are referred in first instance to the CDI by the more diligent party.

### **3.3.10 Judges of Facts**

Judges of fact are officials in charge of checking certain facts during practices and races and whose observations must be reported immediately for a possible decision.

Statements of fact depend exclusively from a factual observation without any possible adjustment of the sanction which is statutorily and precisely stated. These statements of facts and the resulting decisions are immediate and in certain cases not subject to protest or appeal, as specified in the relevant regulations.

Beyond members of the Race Direction, one or several judges of fact may be appointed to supervise the jump starts, the passage of the finish line, as to whether or not a rider has exceeded the track limits, or as to any other fact laid down in these Regulations.

### **3.3.11 The FIM/FIM Europe as a Party in the Legal Proceedings**

#### **3.3.11.1 Function**

For JuniorGP WC, in all proceeding before the CDI, the FIM is entitled to assert its interests or to explain its position by means of a prosecution address.

For Moto2 EC & ETC, for all appeals to the CDI, the FIM Europe is entitled to support the correctness of the penalties pronounced against the appellant.

### 3.3.11.2 Appointment

The FIM/FIM Europe Executive Board shall appoint in each case, the person who will represent the FIM/FIM Europe.

### 3.3.11.3 Procedure

The intervention of the FIM/FIM Europe is optional and is left to the discretion of the Executive Board.

According to this Code, the FIM/FIM Europe enjoys the same rights and obligations as the other parties.

The FIM/FIM Europe may be present in person at a hearing or may present its claims in writing.

### 3.3.11.4 Cases concerning behaviours of an exceptional gravity

In case of a behaviour of an exceptional gravity, the President of the FIM/FIM Europe, the FIM Executive Board/FIM Europe Management Council may refer the case to the FIM CDI which will hear such a case according to the procedures and time limits laid down by the General FIM/FIM Europe Disciplinary and Arbitration Code.

## 3.4 PROTEST AND APPEALS

### 3.4.1 Protest for all classes

A protest is an action taken by any legal entity or any individual, rider, team, manufacturer, official etc. **to the Race Direction** against another legal entity or any individual, rider, team, manufacturer, official etc.

#### 3.4.1.1 Right of protest for all classes

A protest may be lodged against:

- an entry of a Rider, a Team or a Manufacturer,
- an alleged non-compliance of a motorcycle with the regulations,
- any alleged error, irregularity or breach of the regulations occurring during an event,
- a presumed wrongdoing behaviour of a competitor, not seen or not sanctioned by the **Race Direction**, having occurred during an event.

However, no protest may be lodged against an immediate decision made by any judges of fact in the exercise of their duties, **including but not limited to:**

- a fine for speeding in the pit lane, pit lane exit violation, or practice start violation.
- a change of position.
- a ride through.
- a long lap(s) penalty.
- a time penalty given **instead** of any penalty not subject to **protest**.
- a cancellation of the lap time concerned for a rider exceeding the track limits during practice.
- a disqualification from the practice sessions or races by means of a black flag or black flag with orange disc.
- a grid penalty for the race of the event

No protest may be lodged against a decision of whether a rider is actively competing in the case of an interrupted race.

No protest may be lodged against a decision based on **any judge of fact report, a jump start, a track limit violation or a photo finish.**

#### **3.4.1.2 Procedure and time limit for protests for all classes**

All protests must be submitted in writing to the **Race Direction** and signed only by the person directly **involved**. Each protest must specify:

- the relevant regulations or **infringed provisions**,
- the concerns of the protesting party,
- against whom the protest is **filed** (when relevant).

Each protest must refer to a single subject only and the intention to protest should be **directly filed** to Race Direction or **via** the FIM Stewards:

- within 30 minutes of the publication of the results in the case of Sporting Regulation protests,
- and anyhow (in all cases) before the chequered flag of the session in the case of Technical Regulation protests.

The protest must then be **filed** in writing or withdrawn within 1 hour at the latest after the publication of the **official results\***.

**\* publication of results includes the official Championship web site digital notice/timekeeping board, the ones signed by the Clerk of the Course or the Race Direction of the event with time of official signature, or the digital distribution of results by the Championship Promoter. The latest communication/publication among those three means for sharing the results with all parties, will be the base to determine/fix the protest time deadline (time reference hh:mm).**

A protest against the eligibility of a rider, team or a motorcycle to enter a class or event must be made before the start of the official practice. A protest against a motorcycle on technical control compliance grounds (eg. weight, noise, materials, etc.) may be made after the start of official practice, and must be **directly filed** to Race Direction or **via the FIM Stewards** before the chequered flag of the practice session or race concerned.

### 3.4.1.3 Security Deposit for protests for all classes

Each protest must be handed to a responsible official (Clerk of the Course, Race Director, FIM Stewards or Secretary of the Meeting) together with the security deposit of 660 Euros or equivalent via bank transfert:

- to the FIM Administrations for **JuniorGP WC** or
- to the FIM Europe General Secretariat (for Moto2 EC & ETC)

Proof of the **security deposit** payment must be joined to each statement of protest in writing.

This security deposit may only be returned if the protest is upheld.

In the case of protests referring to the alleged non-compliance of motorcycles with the regulations and requiring the dismantling and re-assembly of clearly defined parts of a motorcycle, an additional deposit is specified in the Art. 1.31 of the Sporting Regulations (500 Euros) or may be specified by the Race Direction on a proposal of the Technical Director.

In the case of protests referring to the alleged non-compliance of fuel with the regulations and requiring the fuel tests, an additional deposit is specified in the Art. 1.32 of the Sporting Regulations (600 Euros).

This total amount deposit must be paid by the protester via bank transfer to the FIM (for JuniorGP WC) or FIM Europe (for Moto2 EC & ETC) Administrations, within one hour upon notification of the Race Direction and before the dismantling has started.

Proof of the **security deposit** payment must be joined to the statement of protest in writing.

#### **3.4.1.4 Hearing of a protest for all classes**

After an immediate hearing, the Race Direction must make a decision on any protest presented. The protest has to be judged according to the provisions of the Regulations.

**Decisions of the Race Direction taken during track activities (practice and races) may be communicated on monitors. Such communications on public screens are considered valid notification.**

#### **3.4.1.5 Effect of the decision upon a protest for all classes**

The decision of the Race Direction of determination of penalty is immediate.

#### **3.4.2 Appeals for all classes**

An appeal is an action taken by any legal entity or any individual, rider, team, manufacturer, official etc. affected by a penalty or decision issued by the FIM disciplinary authorities (whether arising from a protest or otherwise).

##### **3.4.2.1 For JuniorGP World Championship**

###### **3.4.2.1.1 Right of appeal**

The rules concerning appeals against FIM disciplinary decisions are:

###### **1. To the FIM Stewards against a decision of the Race Direction**

No appeal may be lodged against a decision made by any judges of fact in the exercise of their duties, **including but not limited to:**

- a fine for speeding in the pit lane, pit lane exit violation, or practice start violation.
- a change of position.
- a ride through.



- a long lap(s) penalty.
- a time penalty given **instead** of any penalty not subject to appeal.
- a cancellation of the lap time concerned for a rider exceeding the track limits during practice.
- a disqualification from the practice sessions or races by means of a black flag or black flag with orange disc.
- a disqualification from the practice sessions or the race following a positive results to the breath alcohol test carried out at such event.
- a suspension from one or more official practice sessions (or part thereof) of the event.
- a grid penalty for the race of the event.

No appeal may be lodged against a decision of whether a rider is actively competing in the case of an interrupted race.

No appeal may be lodged against a decision based on **any judge of fact report, a jump start, a track limit violation or a photo finish.**

When no appeal may be lodged to the CDI, the decision of the FIM Stewards is final.

## **2. To the CDI against a decision of the FIM Stewards**

No appeal may be lodged against a decision made by any judges of fact in the exercise of their duties, **including but not limited to:**

- a fine for speeding in the pit lane, pit exit line violation, or practice start violation.
- a change of position.
- a ride through.
- a long lap penalty(ies).
- a time penalty given **instead** of any penalty not subject to appeal.
- a cancellation of the lap time concerned for a rider exceeding the track limits during practices.



- a disqualification from the practice sessions or races by means of a black flag or black flag with orange disc.
- a disqualification from the practice sessions or the race following a positive results to the breath alcohol test carried out at such event.
- a suspension from one or more practice sessions (or part thereof) of the event.
- a grid penalty for the race of the event.

No appeal may be lodged against a decision of whether a rider is actively competing in the case of an interrupted race.

No appeal may be lodged against a decision of a **judge of fact** based on a **jump start, a track limit violation or a photo finish.**

No appeal may be lodged if the FIM Stewards confirm the previous decision of the Race Direction. In this case, the decision of the FIM Stewards is final.

### 3. To the CAS

No appeal may be lodged against a decision made by any judges of fact in the exercise of their duties, **including but not limited to:**

- a fine for speeding in the pit lane, pit lane exit violation, or practice start violation.
- a change of position.
- a ride through.
- a long lap(s) penalty.
- a time penalty given **instead** of any penalty not subject to appeal a cancellation of the lap time concerned for a rider exceeding the track limits during practice.
- a disqualification from the practice sessions or races by means of a black flag or black flag with orange disc.
- a disqualification from the practice sessions or the race following a positive result to the breath alcohol test carried out at such event.

- a cancellation of the lap time concerned for a rider exceeding the track limits during practices.
- a suspension from one or more official practice sessions (or part thereof) of the event.
- a grid penalty for the race of the event.

No appeal may be lodged against a decision of whether a rider is actively competing in the case of an interrupted race.

No appeal may be lodged against a decision based on **any judge of fact report, a jump start, a track limit violation or a photo finish.**

#### **3.4.2.1.2 Time limits for the lodging of an appeal for JuniorGP World Championship**

The time limit for lodging a statement of appeal is:

against a decision of the Race Direction	- 1 hour
against a decision of the FIM Stewards	- 5 days
statement of appeal before the Court of Arbitration for Sports (CAS)	- 5 days

The time limits shall be taken from the date and time of receipt of the decision by the appellant.

#### **3.4.2.2 For Moto2 European Championship and European Talent Cup**

##### **3.4.2.2.1 Right of appeal**

The rules concerning appeals against FIM Europe disciplinary decisions are:

#### **1. To the FIM Stewards against a decision of the Race Direction**

No appeal may be lodged against a decision made by any judges of fact in the exercise of their duties, **including but not limited to:**

- a fine for speeding in the pit lane, pit lane exit violation, or practice start violation.
- a change of position.
- a ride through.
- a long lap(s) penalty.



- a time penalty given **instead** of any penalty not subject to appeal.
- a cancellation of the lap time concerned for a rider exceeding the track limits during practice.
- a disqualification from the practice sessions or races by means of a black flag or black flag with orange disc.
- a disqualification from the practice sessions or the race following a positive results to the breath alcohol test carried out at such event.
- a suspension from one or more official practice sessions (or part thereof) of the event.
- a grid penalty for the race of the event.

No appeal may be lodged against a decision of whether a rider is actively competing in the case of an interrupted race.

No appeal may be lodged against a decision based on **any judge of fact report, a jump start, a track limit violation or a photo finish.**

When no appeal may be lodged to the FIM Europe Disciplinary Commission, the decision of the FIM Stewards is final.

## **2. To the FIM Europe Disciplinary Commission against a decision of the FIM Stewards**

No appeal may be lodged against a decision made by any judges of fact in the exercise of their duties, **including but not limited to:**

- a fine for speeding in the pit lane, pit exit line violation, or practice start violation.
- a change of position.
- long lap penalty(ies).
- a time penalty given **instead** of any penalty not subject to appeal.
- a ride through.
- a cancellation of the lap time concerned for a rider exceeding the track limits during practices.



- a disqualification from the practice sessions or races by means of a black flag or black flag with orange disc.
- a disqualification from the practice sessions or the race following a positive results to the breath alcohol test carried out at such event.
- a suspension from one or more practice sessions (or part thereof) of the event.
- a grid penalty for the race of the event.

No appeal may be lodged against a decision of whether a rider is actively competing in the case of an interrupted race.

No appeal may be lodged against a decision based on **any judge of fact report, a jump start, a track limit violation or a photo finish.**

No appeal may be lodged if the FIM Stewards confirm the previous decision of the Race Direction. In this case, the decision of the FIM Stewards is final.

### **3. To the International Disciplinary Court (CDI) of the FIM against a decision of the FIM Europe Disciplinary Commission**

No appeal may be lodged against a decision made by any judges of fact in the exercise of their duties, **including but not limited to:**

- a fine for speeding in the pit lane, pit lane exit violation, or practice start violation.
- a change of position.
- a ride through.
- a long lap(s) penalty.
- a time penalty given **instead** of any penalty not subject to protest.
- a cancellation of the lap time concerned for a rider exceeding the track limits during practice.
- a disqualification from the practice sessions or races by means of a black flag or black flag with orange disc.



- a disqualification from the practice sessions or the race following a positive result to the breath alcohol test carried out at such event.
- a suspension from one or more official practice sessions (or part thereof) of the event.
- a grid penalty for the race of the event.

No appeal may be lodged against a decision of whether a rider is actively competing in the case of an interrupted race.

No appeal may be lodged against a decision based on **any judge of fact report, a jump start, a track limit violation or a photo finish.**

No appeal may be lodged if the CDI confirm the previous decision of the FIM Europe Disciplinary Commission. In this case, the decision of the CDI is final.

The decisions of the CDI, shall be final unless one of the parties involved in the case can bring to light new documents or proof which could not have been taken into consideration at the time of the original hearing and which might have a bearing on the verdict. In such cases, the CDI itself shall decide whether a new hearing is necessary. If so, it shall forward all the documents to the FIM EUROPE General Secretary with a view to appointing a new hearing and pursuing the matter further.

#### 4. To the CAS

No appeal may be lodged against a decision made by any judges of fact in the exercise of their duties, **including but not limited to:**

- a fine for speeding in the pit lane, pit lane exit violation, or practice start violation.
- a change of position.
- a ride through.
- a long lap(s) penalty.
- a time penalty given **instead** of any penalty not subject to appeal.
- a cancellation of the lap time concerned for a rider exceeding the track limits during practice.



- a disqualification from the practice sessions or races by means of a black flag or black flag with orange disc.
- a suspension from one or more official practice sessions (or part thereof) of the event.
- a grid penalty for the race of the event.

No appeal may be lodged against a decision of whether a rider is actively competing in the case of an interrupted race.

No appeal may be lodged against a decision based on **any judge of fact report, a jump start, a track limit violation or a photo finish.**

#### **3.4.2.2.2 Time limits for the lodging of an appeal for Moto2 European Championship and European Talent Cup**

The time limit for lodging a statement of appeal is:

against a decision of the Race Direction	- 1 hour
against a decision of the FIM Stewards	- 5 days
against a decision of the FIM Europe Disciplinary Commission	- 5 days
against a decision of the FIM CDI	- 5 days
statement of appeal before the Court of Arbitration for Sport (CAS)	- 5 days

The time limits shall be taken from the date and time of receipt of the decision by the appellant.

#### **3.4.2.3 Lodging of an appeal for all classes**

To be admissible, the statement of appeal must be submitted in writing (appeal before the FIM Stewards) or sent by registered letter, special courier or by electronical mail:

- For Moto2 European Championship & European Talent Cup: to the FIM Europe General Secretariat and postmarked (appeal before the FIM Europe Disciplinary Commission).
- For all classes: FIM Administration and postmarked (appeal before the CDI).

For Moto2 European Championship & European Talent Cup, within 10 days following the statement of appeal before the FIM Europe Disciplinary Commission, the appellant assigns to the FIM Europe General Secretariat a brief of appeal stating the facts.

If the appeal was not lodged and/or the security deposit for appeal not paid within the dead line specified in Art. 3.4.2.2.2 and 3.4.2.4, the appeal will be declared inadmissible with out hearing.

For all classes, within 10 days following the statement of appeal before the CDI, the appellant assigns to the FIM Executive Secretariat Administration a brief of appeal stating the facts.

If the appeal was not lodged and/or the security deposit for appeal not paid within the dead line specified in Art. 3.4.2.1.2 and 3.4.2.4 (for **JuniorGP WC**) or Art. 3.4.2.2.2 and 3.4.2.4 (for **Moto2 EC & ETC**), the appeal will be declared inadmissible without hearing.

#### **3.4.2.4 Security deposit for appeals for all classes**

The amount of the security deposit is 1'320 Euros for all classes.

The correct security deposit for appeal must be paid via bank transfer (as indicated on the Notification of Sanction):

- to the FIM Administration for all classes (appeal before the FIM Stewards or before the CDI), or
- to the FIM Europe General for Moto2 European Championship & European Talent Cup (appeal before the FIM FIM Europe Disciplinary Commission **only**).

as the case may be as per requested by the officials on duties at the event.

Proof of the **security deposit** payment must be joint to the statement of appeal in writing.

This security deposit may only be returned if the appeal is upheld.

#### **3.4.2.5 Security deposit payable upon an adjournment for all classes**

If an adjournment to call further witnesses is ordered upon the request of one of the parties involved, this party must provide an additional financial guarantee within a time limit to be fixed by the disciplinary body. The hearing will not be continued until this guarantee has been paid. In case of no provision of the guarantee FIM Europe within the time limit, the disciplinary body will make a determination on the appeal based on the evidence of the original witness.



### **3.4.2.6 Time limits to be observed for appeal hearings for all classes**

For all classes, the FIM Stewards must be convened to examine an appeal immediately after the brief of appeal is received.

The FIM Stewards must in all cases announce a decision immediately following the hearing of the appeal.

For Moto2 European Championship & European Talent Cup, the FIM Europe Disciplinary Commission must be convened to examine an appeal not later than 2 months after the brief of appeal is received.

The FIM Europe Disciplinary Commission must in all cases pronounce a decision.

For all classes, the CDI must be convened to examine an appeal not later than 6 weeks after the brief of appeal is received.

The CDI must in all cases pronounce a decision within 6 weeks after the brief of appeal is received.

### **3.4.2.7 Effect of an appeal for all classes**

For all classes, on request of the appellant, the FIM Europe Stewards Panel may decide a stay of the provisional execution adjudicated by the Race Direction by injunction or in its decision.

For Moto2 European Championship and European Talent Cup, on request of the appellant, the FIM Europe Disciplinary Commission may decide a stay of the provisional execution adjudicated by the FIM Europe Stewards Panel by injunction or in its decision.

For all classes, on request of the appellant, the International Disciplinary Court (CDI) may decide a stay of the provisional execution adjudicated by the FIM Stewards Panel by injunction or in its decision.

## **3.5 PROCEDURE BEFORE ALL THE DISCIPLINARY AND ARBITRATION BODIES**

### **3.5.1 Right to a hearing for all classes**

It shall be the unquestionable right of any person or body charged with any offence under the Regulations to defend themselves, either in person or by proxy.

Any party convened before a disciplinary or arbitration body has the right to be represented by one defense counsel of its own choice and at its own expense. Adequate notice of this intention must be given in order that this may also be notified to all other parties in the case. Failure to do so may result in the disciplinary or arbitration body upholding an objection to such representation.

If any of the parties duly convened do not appear, judgment can be rendered by default.

The disciplinary or arbitration bodies may decide that the hearing take place by means of a telephone conference call or through any other means of communication using a telephone or electronic device. Such a method of conducting a hearing shall only take place with the consent of all parties involved.

### 3.5.2 The hearing for all classes

The hearing shall be public unless the disciplinary or arbitration body itself decides otherwise in exceptional circumstances.

The hearing shall be conducted in one of the official languages of the FIM. Should one of the parties wish to use another language, it shall provide the necessary interpreters at its own costs.

The appellant must be present or duly represented, failing which, the protest will not be admissible and the costs shall be borne by the appellant.

Once the Chief Steward has opened the proceedings, **they** will invite the parties involved to state their respective cases without the witnesses being present.

After statements of the parties concerned, the disciplinary or arbitration body shall hear the various witnesses and experts in order to complete the evidence. The parties involved in the case shall have the right to question all witnesses and experts on their evidence.

Any member of the disciplinary or arbitration body may, at any time during the hearing and with the Chief Steward's approval, question any of the parties involved, the witnesses and experts.

### **3.5.3 Witnesses and Experts for all classes**

Each party is responsible for the convening and appearance of its own witnesses, as well as their expenses unless decided otherwise by the Court.

The disciplinary or arbitration body has no authority to oblige the witnesses to swear on oath; therefore, testimony shall be given freely. The witnesses may only testify to the facts they know and shall not be allowed to express an opinion, unless the disciplinary or arbitration body should regard them as experts on a particular subject and should ask them to do so.

After having made their statements, the witnesses may not leave the Courtroom and shall not be allowed to speak to any other witness who has still to give evidence.

The Court may summon experts.

### **3.5.4 Judgement for all classes**

Decisions of all disciplinary or arbitration bodies will be reached in camera by a simple majority of votes. All members will have equal voting rights which must be exercised when a decision is required. Abstention is not permitted.

Each member of the disciplinary or arbitration body binds himself to keep all deliberations secret.

### **3.5.5 Notification of judgements for all classes**

The decisions of the Race Direction or of the FIM Stewards must be notified directly at the event venue, or failing that, addressed by registered letter with acknowledgement of receipt or by electronic mail.

All judgements of the International Disciplinary Court (CDI) or and FIM Europe Disciplinary Commission (for Moto2 European Championship and European Talent Cup) must be notified, in writing, by registered letter with acknowledgement of receipt or by electronic mail in order to inform all the parties concerned.

### **3.5.6 Publication of judgements for all classes**

The disciplinary or arbitration body imposing a penalty or adjudicating a protest or an appeal must have its findings published and quote the names of all parties concerned. The persons or bodies quoted in these statements have no right of action against the FIM/FIM Europe nor against any person having published the statement.

Furthermore, final decisions will be published by Press Release (in the Media Centre) and in the FIM/FIM Europe Website unless the Court itself decides otherwise.

## **3.6 COSTS OF PROCEDURE**

For all classes, the costs of a disciplinary or arbitration decision will be assessed by the FIM Administration/FIM Europe General Secretariat and will be awarded against the losing party, unless the Court decides otherwise.

### **3.6.1 Payment of fines and costs**

#### **3.6.1.1 For JuniorGP World Championship**

If the penalty is definitive, all fines must be paid into the Benevolent Fund before the beginning of the first practice of the second round following the final decision. The costs must be paid to the FIM Administration or FIM Europe General Secretariat within 30 days of notification of the judgement decision according to Art. 3.5.5.

The person or body affected by the decision shall be automatically suspended from participation in all FIM/FIM Europe activities, until such time as full payment has been received.

#### **3.6.1.2 For Moto2 European Championship and European Talent Cup**

If the penalty is definitive and either the fine and/or costs are not paid within 30 days of notification of the judgement decision according to Art. 3.5.5, the person or body affected by the decision shall be automatically suspended from participation in all FIM Europe activities, until such time as full payment has been received by the FIM Europe General Secretariat.

### **3.7 RECIPROCITY OF PENALTIES**

#### **3.7.1 For JuniorGP World Championship only**

As a consequence of the agreement of reciprocity concluded on April 30<sup>th</sup>, 1949 between the 4 organisations controlling motorised sports internationally, i.e. in addition to the FIM, namely:

- the Fédération Internationale de l'Automobile (FIA)
- the Fédération Aéronautique Internationale (FAI)
- the Union Internationale Motonautique (UIM)

Penalties of suspension or exclusion may also be applied to one or another of the sports represented by the above organisations, upon request of the FIM.

### **3.8 LAW OF MERCY**

#### **3.8.1 For JuniorGP World Championship only**

The FIM Board of Directors, after consultation with the List of the International Judges (LJI) Director or upon his proposal, may mitigate or completely forgive the penalty of a person or group of persons after having exhausted all the appeal procedures.

### **3.9 ARBITRATION CLAUSE**

#### **3.9.1 For all classes**

Final decisions made by the disciplinary bodies (exception Art. 3.4.2.3) may be submitted exclusively to the Court of Arbitration for Sport by way of appeal within the time limit as laid down in Art. 3.4.2.1.2 (for JuniorGP WC) or Art. 3.4.2.2.2 (for Moto2 EC and ETC), which shall have exclusive authority to impose a definitive settlement, in accordance with the Code of Arbitration applicable to sport.

#### **3.9.2 For Moto2 European Championship and European Talent Cup**

Final decisions handed down by the jurisdictional organs or the General Assembly of the FIM Europe shall not be subjected to appeal in the ordinary courts.



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#### 4. CIRCUIT STANDARDS

Circuit standards will be defined by the “FIM STANDARDS FOR CIRCUITS”.

Updated version available on [www.fim-moto.com](http://www.fim-moto.com).



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## 5. MEDICAL CODE

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

Updated version available on [www.fim-moto.com](http://www.fim-moto.com).



## 6. ANTI-DOPING CODE

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

Updated version available on [www.fim-moto.com](http://www.fim-moto.com).



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## 7. ENVIRONMENTAL CODE

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

Updated version available on [www.fim-moto.com](http://www.fim-moto.com).



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## 8. CODE OF ETHICS

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

Updated version available on [www.fim-moto.com](http://www.fim-moto.com).



FÉDÉRATION INTERNATIONALE  
DE MOTOCYCLISME

**FIM-MOTO.com**

11, ROUTE DE SUISSE | CH - 1295 MIES

ccr@fim.ch

6510018