FÉDÉRATION INTERNATIONALE
DE MOTOCYCLISME

FIM ROAD RACING WORLD CHAMPIONSHIP
GRAND PRIX REGULATIONS

2015

RÈGLEMENTS DU
CHAMPIONNAT DU MONDE FIM
DES GRANDS PRIX DE COURSES SUR ROUTE

MotoGP™

FIM ROAD RACING WORLD CHAMPIONSHIP GRAND PRIX REGULATIONS

MotoGP

Moto2

Moto3

This book (hereinafter collectively referred to as the "FIM Road Racing World Championship Grand Prix Regulations") has been printed on **31.01.2015**. Successive editions can be printed for supplementing and/or amending. The new editions will be numbered (2nd edition, 3rd edition, etc.), dated and issued to all relevant Bodies.

THIS BOOK PREVAILS OVER ALL OTHER FIM RULE BOOKS EXCEPT THOSE REFERRED TO AS AN APPENDIX.

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FIM ROAD RACING WORLD CHAMPIONSHIP GRAND PRIX REGULATIONS

AMENDMENTS TO THE ROAD RACING FIM WORLD CHAMPIONSHIP GRAND PRIX REGULATIONS

The FIM, through the Grand Prix Commission and the Grand Prix Permanent Bureau, may at any time amend any or all provisions of the Regulations.

Any subsequent changes that take place after the printed versions are completed will be made electronically, and the on-line versions will be the prevailing versions.

The Permanent Bureau consists of:

- One Representative of the Fédération Internationale de Motocyclisme (FIM).
- One Representative of DORNA.

which shall meet on a regular basis to discuss and decide on all issues of the FIM Grand Prix pertinent to the respective interests of the members.

The procedures for the calling of meetings of the Permanent Bureau and for procedures during such meetings (which may be held by telephone or other electronic means) and for the appointment and/or vacancy of representatives and all procedures for their deliberations shall be as mutually agreed by the members from time to time provided always that a decision of the Permanent Bureau shall only be effective with and upon the unanimous vote of the members.

The Grand Prix Commission is competent to study any proposal of changes to the FIM Road Racing World Championship Grand Prix Regulations.

The Grand Prix Commission consists of:

- One Representative appointed by the Fédération Internationale de Motocyclisme (FIM).
- One Representative appointed by the manufacturers, through MSMA.
- One Representative appointed by the teams and riders, through IRTA.
- One Representative appointed by DORNA who will be the Chairman of the Grand Prix Commission.

Any resolution voted by the Grand Prix Commission shall require the simple majority and the Chairman will have the casting vote in case of a tie. The resolutions of the Grand Prix Commission shall be effective subject to the approval of the Permanent Bureau. The parties shall procure that the meetings of the Grand Prix Commission take place no later than fourteen (14) days following the request of any Representative for that meeting.

GENERAL UNDERTAKINGS AND CONDITIONS

These Regulations derogate and supersede all and any other previous regulations in place before the date of publication of these regulations.

All riders, team personnel, officials, promoters/organizers and all the persons involved in any capacity whatsoever participating in the Road Racing FIM World Championship Grand Prix (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

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

It is the responsibility of the team to ensure that all persons concerned with its entry observe all the requirements of the Regulations. The responsibility of the rider, or any other person having charge of an entered 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.

ANTIDOPING CODE

All the persons concerned must at all times 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 FIM World Championship for Riders and Constructors (engine for Moto3 and MotoGP; frame for Moto2) will be organised.

1.2 Events

1.2.1 The Event shall be deemed to commence at the scheduled time for Technical and Sporting Checks 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.

1.2.3 Events must not include any other races except for support races approved by the FIM and DORNA.

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

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

*** “Organiser” in the Sporting Regulations section refers to the organiser and/or promoter of that individual Event.**

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 including cover for all participants, teams, sponsors, service companies, officials, FIM, DORNA, IRTA, etc.

The cover provided for each event shall be US $ 6 million, with the exception of the USA and Canada, where the cover shall be different.

The Organiser will send a copy of such liability insurance to Dorna by courier or telefax, at least 30 days prior to its event. At least 15 days prior to the event; Dorna shall let the Organiser know if some amendments must be made to the aforesaid liability insurance to meet the insurance laws of the organiser's country.

The validity of the insurance must start at 08:00hrs, on the Wednesday (or Tuesday in the case of Saturday races) before the race and finish at 24:00 hrs on the Monday (or Sunday in the case of Saturday races) after the race.

1.2.8 At least 90 days prior to the Event, the Organisers of the event must submit the following information to the FIM and DORNA:

a) Confirmation of the name and address of the Promoters/Organisers, including telephone and facsimile numbers for correspondence.

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 (with FIM Clerk of the Course licence).

h) The name, address and telephone number of the Chief Medical Officer.

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.

1.2.9 At least 60 days before the Event, DORNA must publish the above information and post it to IRTA for distribution to all teams with an entry for the Event.

1.3 The Paddock

1.3.1 The Paddock, pit boxes and all other facilities must be available to teams at least on the Wednesday prior to a Sunday race and remain available to competitors for at least one day and, if possible, two days after the event.

1.3.2 Access must be available for teams arriving to set up between the hours of 08:00 and 22:00.

1.3.3 At all times that the Paddock is occupied there must be 24 hour attendance at the gates providing vehicular access to the circuit and paddock.

1.3.4 When the Paddock is occupied there must be an adequate medical and fire fighting service available to all riders, teams, manufacturers, sponsors, service companies, officials, FIM, Dorna, IRTA, etc.

At minimum the services must be available from 08.00 – 18.00 hrs on the two days prior to the "setting up of teams day", and on a 24 hour basis for the remainder of the event, ending at midnight on the day after race day.

1.3.5 Full security must be supplied to the Paddock area from at least midnight of the Wednesday prior to a Sunday race until midnight of the Monday following the race.

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 Permanent Bureau.

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 Race Director has no competence for the application of sanctions.

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.

Medical Director

Responsible for liaison with the Chief Medical Officer appointed by the Organisers to ensure compliance with the Medical Code.

FIM Safety Officer

Responsible for the supervision of all aspects of safety.

Starter

Responsible for the start procedure.

1.4.2 Individual Event officials

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

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 metres behind the Track Marshals or leave. Only sportive personnel should stay on the edge of the track for the "sporting" track inspection.

The Race Director, the FIM Safety Officer, the Clerk of the Course and the Medical Director 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 FIM 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 The Race Direction

The Race Direction shall be appointed for the Championship by the Permanent Bureau.

1.4.4 The FIM Stewards

The FIM Stewards shall be appointed for each event by the FIM.

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 Medical Director
The Clerk of the Course
The Delegate appointed by DORNA
The FIM Safety Officer

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 All of the members have 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 Chief Steward may attend the meetings of the Event Management Committee and the Race Director may also invite the participation of Officials or other persons to assist in the meetings. However, the Chief Steward and 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 FIM Representative
- The DORNA Representative
- The IRTA Representative

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 decision as provided in the Regulations.

b) To impose penalties for any infringements of the Regulations.

c) To make changes in the conduct and/or format of a race and/or a practice session based on safety considerations, provided that such decision is absolutely necessary to resolve a situation not foreseen in the FIM Road Racing World Championship Grand Prix Regulations. In such exceptional cases, such decision may prevail over specific provisions of the FIM Road Racing World Championship Grand Prix 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 FIM Road Racing World Championship Grand Prix Regulations.

e) To impose penalties on **O**rganisers for having been unable to ensure the smooth and efficient running of the event or for serious breaches of the Regulations.

f) To adjudicate on any protest relating to infringements of the Regulations.

1.7 The FIM Stewards

1.7.1 There will be a panel of three FIM Stewards (with FIM 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. All Stewards officiating at more than four Grand Prix in any year shall be approved by the Permanent Bureau.

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 Chairman will exercise a casting vote.

1.7.6 The FIM Stewards have no executive role in the running of the events.

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 The Calendar

1.8.1 The calendar of races counting for the Championships will be, in principle, published by no later than 31st October of the preceding year.

1.8.2 The season is defined as starting on the day after the final race of the year, and finishing on the day of the final race of the following year.

1.9 Classes

1.9.1 Classes will be for the following categories:

Moto3	250cc 4 stroke, single cylinder
Moto2	Moto2 – official engine
MotoGP	1000cc 4 stroke, maximum 4 cylinders

1.9.2 Technical Regulations governing the three classes are provided in the FIM Grand Prix Technical Rules for the FIM Championship.

1.10 Eligible Competitors

1.10.1 In order to compete in the Championship, riders must be officially entered by a member team of IRTA (with the exception of wild card riders, see Art. 1.11.5/6).

The rider must be in possession of an “FIM Grand Prix Licence” or an “FIM Superlicence” issued by a FMN. Riders are designated by IRTA/Grand Prix Commission. Licences can, in certain circumstances, be for a single event. To receive a Licence, the rider must be in possession of a national licence of a FMN at no additional cost to the rider.

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

1.10.1.1 Minimum age

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

- Moto3: 16 years
- Moto2: 16 years
- MotoGP: 18 years

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

In the Moto3 class, an exemption applies to the winner of the FIM Junior Moto3 Championship to compete in the Moto3 class of the FIM World Championship Grand Prix in the following season, even if the rider has not reached the minimum age for the class.

1.10.1.2 Maximum age MotoGP

For the MotoGP contracted riders, the limit for the maximum age finishes at the end of the year in which the rider reaches the age of 50.

1.10.1.3 Maximum age Moto2

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

1.10.1.4 Maximum age Moto3

The maximum age is 28 years (25 years for new contracted riders participating in the Moto3 Grand Prix for the first time and for wild cards) at the 1st of January of the corresponding Championship year.

1.11 Entries

1.11.1 Teams must submit their proposed entries to the Secretariat of IRTA by the absolute deadline of the last event of the preceding season. Each application must indicate the riders designated and the class in which they will participate together with the Testing Circuits designated by teams in the Moto3 and Moto2 classes, and by the motorcycle manufacturers in the MotoGP class.

The Selection Committee, comprising delegates of FIM, Dorna and IRTA will select the teams and riders accepted for participation in the following season which commences on the day after the last event of the preceding season. Once accepted for participation each team and it's contracted riders are subject to the testing restrictions that apply in each class.

1.11.2 Every team accepted for participation is required to become a member of IRTA and conclude a Participation Agreement with IRTA prior to 28 February in the relevant season.

1.11.3 Every accepted team must complete an entry form in respect of each rider and submit this to the Secretariat of IRTA by 28 February of the relevant season.

Entries in the MotoGP class must specify which category each rider will participate under, Open category or Factory option (ref. Art. 2.4.3.5) by the 28 February deadline for entry form completion.

Teams are permitted to declare this category option for each rider any time between the start of the season and the entry form deadline. However, a rider may only be nominated for the Factory option if he has respected the testing regulations specified for that option (refer to Art. 1.15.1.1). Specifically, with effect from the start of the season, that rider may only have participated in Official tests, tests authorised by Race Direction, or Manufacturer tests of the manufacturer factory team the rider is contracted to.

Except when special dispensation is granted each entry commits the team to designate a rider to compete in all the events of the Championship in the chosen class. Exceptions can only be made as follows:

i) A team may withdraw a rider from an event which has already started, due to injury of the rider, irreparable damage to the motorcycle(s) or in case of “Force Majeure”. A withdrawal for medical reasons must be supported by a letter from the Chief Medical Officer of the meeting or the Medical Director.

ii) A team may withdraw a rider from additional events in the Championship only for medical reasons or other reasons of “Force Majeure”. Withdrawals for medical reasons must be supported by a letter from a qualified Doctor and are subject to verification by another medical practitioner appointed by IRTA at its own expense. DORNA shall then have the right to require an additional examination and verification by at least two other medical practitioners appointed by DORNA for that purpose. In the event that the medical practitioners appointed by DORNA do not

support the opinion of the medical practitioner appointed by IRTA, the following shall apply:

a) the opinion of the medical practitioners appointed by DORNA shall be deemed to prevail;

and

b) IRTA shall pay all costs incurred in the examination and reporting by the medical practitioners appointed by DORNA.

Teams must make every reasonable effort to provide a qualified substitute rider to fulfil their entry obligations within 10 days of withdrawal. However the deadline for substitution or replacement of the entered rider is two hours after the end of the Free Practice 2 session for that class, except in the MotoGP class when the limit is 2 hours before the qualifying practice.

iii) For reasons not being medical reasons and not being reasons of "Force Majeure", and subject to the Team obtaining the approval of IRTA and then subject to IRTA obtaining the approval of DORNA/FIM (neither of whom shall be obliged to give reasons for any refusal to approve), a Team may replace a rider which that Team has entered in the Championship with another rider ("replacement rider") for remaining rounds of the Championship. Only one replacement of a rider will be permitted per season. Exceptional circumstances will be examined by IRTA and DORNA/FIM.

1.11.4 If a team is unable to provide a substitute rider, then IRTA may decide to allow another team to enter a rider, on an event by event basis, to reach the required number of entries. Article 1.10.1 will apply to all replacement and substitute riders.

1.11.5 Moto2 and Moto3 wild cards:

In each class there may be a maximum of two wild card entries. Wild cards may be proposed by an FMN, the FIM or Dorna.

Wild card riders must be holders of an FIM "one event Road Racing Grand Prix" licence issued on behalf of any FMN and entries must be submitted to the FIM, on the official entry form issued by the FIM, at least 45 days before the event.

These entries will be submitted to the Grand Prix Commission who will decide which, if any, of the entries will be accepted.

No wild card entry will be granted to a rider who has ridden in the event as a wild card on 3 previous occasions in the same class. (For the purpose of this regulation the Moto3 class is considered as being the same as the 125cc class and the Moto2 class is considered as being the same as the 250cc class).

Accepted entries will be required to pay to IRTA a fee to cover the costs of materials provided for their participation.

For **2015** the fee will be:

13,000 **€uros** for a Moto2 entry and

3,500 **€uros** for a Moto3 entry.

If after acceptance and payment a rider withdraws their entry, only 50% of the IRTA fee will be refundable. A full refund may be applied in the following cases:

a. the withdrawal is solely and verifiably due to rider injury,

b. the withdrawal is due to the rider being taken as a substitute rider for a contracted team for that event,

c. the FIM via their local Federation appoints another rider to take over the accepted wild card entry.

No financial compensation or reimbursement of expenses will be paid to wild card riders.

Wild card entries are not subject to the IRTA insurance requirements. Insurance of the wild card riders is the responsibility of their FMN.

When a wild card licence is confirmed and issued, the cost of this licence will not be reimbursed to the rider who withdraws its participation to the race.

1.11.6 MotoGP wild cards:

There may be a maximum of two wild card entries.

Wild cards may be proposed by an FMN, the FIM, the MSMA or Dorna.

Wild card riders must be holders of an FIM “one event Road Racing Grand Prix” licence issued on behalf of any FMN.

Applications may be submitted to the FIM, on the official entry form issued by the FIM, at any time prior to the event.

Entries, as received by the FIM, will be submitted to the Grand Prix Commission who will decide which, if any, of the entries will be accepted.

Accepted entries may be required to pay to IRTA a fee to cover the costs of tyres provided by the official supplier for their use at the event. If after acceptance and payment a rider withdraws their entry, only 50% of the IRTA fee will be refundable. A full refund may be applied in the following cases:

a. the withdrawal is solely and verifiably due to rider injury,

b. the withdrawal is due to the rider being taken as a substitute rider for a contracted team for that event,

c. another rider is appointed to take over the accepted wild card entry.

No financial compensation or reimbursement of expenses will be paid to wild card riders.

Wild card entries are not subject to the IRTA insurance requirements. Insurance of the wild card riders is the responsibility of their FMN.

When a wild card licence is confirmed and issued, the cost of this licence will not be reimbursed to the rider who withdraws its participation to the race.

1.11.7 A compulsory briefing will be held for all the riders who will be participating for the first time in the current Championship, at 17:00 hrs on the day preceding the day scheduled for the first practice session.

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

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

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

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

1.11.10 MotoGP Class Manufacturers

In the MotoGP class, Motor Cycle Manufacturers are permitted to participate with a maximum of two entries in their own team. Those Manufacturers may also lease motorcycles and equipment to Independent teams. However, each Manufacturer is limited to a maximum of 4 entries in total (whether in the manufacturer's own team or an independent team) under the Factory Option.

Refer to Art. 2.4.3.5. 4) for the conditions of the Factory Option entry.

1.11.11 Moto3 Class Manufacturers

- **In the Moto3 class, Manufacturers intending to participate must announce to the Grand Prix Commission by the deadline of 31 August that they will offer to supply Moto3 machines for the following season. By the same date manufacturers must publish their offer to prospective teams together with a parts price list. No manufacturers or 'brands' will be accepted for participation in the following season after that deadline.**

- **Interested teams must confirm their requests for machines to the manufacturers by the deadline of 15 September. Manufacturers must then confirm the team orders by the deadline of 30 September, respecting the minimum supply numbers (12 riders for existing manufacturers). Details of accepted orders will be sent to IRTA who will inform the Grand Prix Commission. Teams who have placed orders that were not accepted can then negotiate with other manufacturers.**

- **Refer to Articles 2.6.3 and 2.6.4 for Moto3 engine and chassis homologation, supply and price regulations.**

1.12 Starting Numbers

1.12.1 Each rider accepted for the Championship will be allocated a specific starting number which will be valid for the whole Championship. In general, the starting numbers will be based on the results of the team riders in the previous year's Championship or in other similar events.

1.13 Schedule

1.13.1 The provisional event schedule will be as follows:

WEDNESDAY: Arrival and setting up of Teams

THURSDAY: Arrival and setting up of Teams
10:00 - 17:00 Technical and Sporting Checks and other formalities

FRIDAY			
09:00-09:40	40 min.	**Moto3™**	Free Practice 1
09:55-10:40	45 min.	**MotoGP™**	Free Practice 1 timed for Qualifying
10:55-11:40	45 min.	**Moto2™**	Free Practice 1
13:10-13:50	40 min.	**Moto3™**	Free Practice 2
14:05-14:50	45 min.	**MotoGP™**	Free Practice 2 timed for Qualifying
15:05-15:50	45 min.	**Moto2™**	Free Practice 2

SATURDAY			
09:00-09:40	40 min.	**Moto3™**	Free Practice 3
09:55-10:40	45 min.	**MotoGP™**	Free Practice 3 timed for Qualifying
10:55-11:40	45 min.	**Moto2™**	Free Practice 3
12:35-13:15	40 min.	**Moto3™**	Qualifying
13:30-14:00	30 min.	**MotoGP™**	Free Practice 4 not timed for Qualifying
14.10-14.25	15 min.	**MotoGP™**	Qualifying 1
14.35-14.50	15 min.	**MotoGP™**	Qualifying 2
15:05-15:50	45 min.	**Moto2™**	Qualifying

SUNDAY			
08:40-09:00	20 min.	**Moto3™**	Warm Up
09:10-09:30	20 min.	**Moto2™**	Warm Up
09:40-10:00	20 min.	**MotoGP™**	Warm Up
11:00		**Moto3™**	Race
12:20		**Moto2™**	Race
14:00		**MotoGP™**	Race

1.13.2 The above schedule can only be varied as follows:

i) Prior to the event by Dorna;

ii) During the event by the Race Direction.

1.13.3 The schedule may include an allotted time for riders and teams to make track laps by scooter, bicycle or on foot. All traffic at this time must be in the circuit direction and all people using a scooter on track must wear a safety helmet.

1.14 Technical Control – Medical Control – Doping Control

1.14.1 Teams in the MotoGP class may present a maximum of two motorcycles per rider for Technical Control which will be carried out according the published schedule, prior to the first practice.

In the Moto2 and Moto3 classes, teams may present only one motorcycle per rider for Technical Control.

Unless a waiver is granted by the Race Direction, teams 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 Control is described in the Technical Regulations, Articles 2.x.5.2, 2.x.5.3, and 2.x.5.4. The procedure for Medical Control is described in the Medical Code.

1.14.3 All articles regarding anti-doping procedures are mentioned in the FIM Anti-Doping Code.

1.15 Practice & Testing

1.15.1 Practice and Testing Restrictions

a) For all classes the season is defined as starting on the day after the final race of the year, and finishing on the day of the final race of the following year.

b) A contracted rider is defined as a rider designated by the team according article 1.11.1

c) Track Familiarisation is permitted at any time at any circuit under the following conditions:

i) Such on-track activity is not permitted within the 14 days before a GP event at a circuit unless authorised by Race Direction.

ii) Only standard production road-homologated motorcycles may be used. Any modifications to the machine must be approved by the Technical Director prior to its use.

NB. Motorcycles of non-roadracing disciplines (eg. Motocross, Enduro, SuperMoto) as approved by the Technical Director, may be used without restriction.

iii. In the Moto2 class, when track familiarisation takes place on a Grand Prix circuit then the road-homologated motorcycle may not be the same brand and the same engine capacity as the current Moto2 official engine supplier. That is, if the motorcycle is the same brand as the official Moto2 engine supplier, it must be of a different engine capacity to the official Moto2 engine.

iv. In case of dispute regarding machine eligibility the decision of the Technical Director will be final.

d) Wild Card riders are not subject to any testing restrictions.

1.15.1.1 MotoGP Class

For the purposes of this regulation separate test teams of manufacturers (includes complete motorcycle Manufacturers and chassis Manufacturers) involved in the Championship are considered as part of the contracted team.

Practice and testing by contracted teams using MotoGP class machines is permitted as follows:

A. Contracted Riders

a) Practice included in the schedule of the events.

b) One three day test organised by Dorna/IRTA, at a circuit in Europe between the final event of the season and 30 November.

c) Three tests, each of three days, organised by Dorna/IRTA between 1 February and the first event of the season.

d) Post-race. A maximum of three tests, each of one day, on the Monday after events in Europe designated by Dorna/IRTA.

e) Any activity authorised by the Race Direction.

f) Contracted riders entered in the Open category using the official MotoGP ECU Kit (refer to Art. 2.4.3.5. 3) may test at any circuit during the season (except during the test ban period, refer to Art. 1.15.1.1.A.h) below), using the team's Test Tyre Allocation (refer to Art. 1.15.1.1. B, below).

Test dates and riders participating must be informed to Race Direction prior to the proposed test, which may not be within 14 days before a GP event held at that circuit.

g) Contracted riders entered **under the Factory Option*** by a Motorcycle Manufacturer (volume manufacturer of complete motorcycles) in it's own factory team may test at one nominated circuit for a maximum of 5 days during the season (except during the test ban period, refer to Art. 1.15.1.1.A.h) below), using the manufacturer's Test Tyre Allocation (refer to Art. 1.15.1.1. B, below).

This test circuit must be nominated prior to the season according to Art. 1.11.1.

Test dates and riders participating must be informed to Race Direction prior to the proposed test, which may not be within 14 days before a GP event held at that circuit.

*** An exemption is granted for a Motorcycle Manufacturer with entries under the Factory Option who has not achieved a race win in dry conditions during the 2013 season, or a new Motorcycle Manufacturer entering the Championship for the first time since the 2013 season. Such Manufacturers will be entitled to the same test opportunities as the Open category, as described in Art. 1.15.1.1.A. f), above. This concession remains valid until the start of the 2016 season.**

h) No testing is permitted by contracted riders between 1 December and 31 January, both dates being inclusive.

B. Test Riders

Machine development using test riders is limited by the Test Tyre Allocation. The allocation is not transferable between teams or manufacturers and is supplied solely by the official tyre supplier, as follows:

All MotoGP Teams: 120 tyres per contracted rider per season. These tyres may be used by a test rider, or the team's contracted rider subject to 1.15.1.1.A. f), g), and h) above.

a) Test riders can participate in any of the tests described in 1.15.1.1. A, above, except for practice included in the schedule of an event.

b) Test riders may test at any circuit, at any time, using only their team's Test Tyre Allocation. Tests are not permitted within the 14 days before a GP event at a circuit unless authorised by Race Direction.

Note that for 2016 the following changes to MotoGP testing regulations have been agreed by the Grand Prix Commission (GPC Misano 12.9.15). The following covers testing in addition to Official tests and takes into account the removal of the "Open" class designation:

- **All testing outside of Official winter or post-race tests, with either contracted or test riders, is limited to the use of the team's Test Tyre Allocation of 120 tyres per contracted rider per season.**
- **All MotoGP teams are permitted to test with their own contracted riders for a maximum of 5 days at any circuit, using only tyres from the test tyre allocation.**
- **Teams entered directly by the manufacturer ("Factory Team") are permitted to test with test riders at any circuit at any time, using only tyres from the test tyre allocation.**
- **Teams using machines from manufacturers who qualify for Concessions are permitted to test with contracted riders or test riders at any circuit at any time, using only tyres from the test tyre allocation.**
- **In all above cases:**

  No testing is permitted at a circuit within 14 days before the GP event at that circuit.

  No testing is permitted by contracted riders between 1 December and 31 January.

  All tests must be notified to Race Direction in advance.

  Testing is deemed to have taken place when any of the team riders have entered the track.

1.15.1.2 Moto2 and Moto3 Classes

For the purposes of this regulation, test teams of Manufacturers (includes complete motorcycle Manufacturers and chassis Manufacturers) involved in the Championship are not considered to be contracted teams. However they may not use contracted riders for testing except under Art. 1.15.1.2.b), below.

Practice and testing by contracted teams, and by contracted riders, is permitted as follows:

a) Practice included in the schedule of the events.

b) At any circuit with any rider between the final event of the season and 30 November.

c) Three official tests organised by Dorna/IRTA, at circuits in Europe between 1 February and the first event of the season, using only contracted riders.

d) Post-race. One day tests held on the Monday or Tuesday after events in Europe, as nominated by Dorna/IRTA. Post-race tests are only possible if the test days are not required for MotoGP class testing.

e) Any activity authorised by the Race Direction.

f) Each team may designate one GP circuit and one non-GP circuit where they may test at any time between 1 February and the final event of the season, with any riders except a contracted rider from another Grand Prix team in the same class.

Such tests may not be within the 14 days before a GP event at that circuit.

g) No testing is permitted by contracted teams or contracted riders between 1 December and 31 January, both dates being inclusive.

h) Contracted riders who are in their first season of participation in the World Championship may compete in other events held at Grand Prix circuits in Europe, or at events held at Grand Prix circuits in the country of the rider's nationality, during that season.

Note that for 2016 the following changes to Moto2 and Moto3 testing regulations have been agreed by the Grand Prix Commission (GPC Misano 12.9.15).

- **In addition to Official tests, teams may test at any circuit up to a maximum of 10 days during the season (ie. starting from the day after the last GP of the previous season).**
- **No testing is permitted at a circuit within 14 days before the GP event at that circuit.**
- **No testing is permitted by contracted teams or contracted riders between 1 December and 31 January.**
- **All tests must be notified to Race Direction in advance.**
- **Testing is deemed to have taken place when any of the team riders have entered the track.**
- **Teams are not permitted to make private tests between the end of one season and the first race event of the subsequent season at any circuit outside of the continental zone where the team is based, (Europe, Asia/Oceania, Africa, the Americas).**

1.15.2 Practice Sessions at Grand Prix Events (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, the condition of the racing surface of the circuit should not be altered except on instruction from the Race Director and the FIM Safety Officer in response to a localised change in conditions.

1.15.3 Motorcycles

In the MotoGP class, a rider may practice on two motorcycles providing that all such motorcycles have been scrutineered in the name of his/her team.

In the Moto2 and Moto3 classes a rider may practice on the one motorcycle that has been scrutineered in the name of his/her team. Moto2 and Moto3 class rider may change to another motorcycle only in the case of irreparable damage to the principal machine, and only with the permission of the Technical Director who will authorize the issue of a new scrutineering sticker to identify the new machine. The process of authorizing a new machine is not possible during a practice session or after the pit lane closes for the sighting lap of the race.

1.15.4 Lap time

All laps of the riders will be timed.

A new lap record for a circuit can only be established by a rider 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.

1.15.5 Qualification for the Race

A. Moto2 and Moto3

To qualify for the race, a rider must achieve a time **during the Qualifying session(s)** at least equal to 107% of the **qualifying** time recorded by the fastest rider of his class.

Any rider who fails to achieve a qualifying time will be permitted to take part in the race provided that in any of the free practice sessions and/or warm up he/she has achieved a time at least equal to 107% of the fastest rider in the same session. Such riders will start the race from the back of the grid, according to their free practice and/or warm up times.

B. MotoGP Class

i) Riders are automatically qualified for the race if they participate in Qualifying Practice QP1 or QP2 (refer to Art. 1.16.3).

ii) To participate in qualifying practice a rider must achieve a lap time at least equal to 107% of the time recorded by the fastest rider in the same session, in any one of the four Free Practice sessions (FP1, FP2, FP3, FP4).

iii) Substitute riders, replacing a rider after the event has started, are subject to the above conditions if they have participated in two of the first three Free Practice sessions.

iv) If a substitute rider only participates from FP3 onwards and does not achieve a lap time of 107% of the fastest rider in the same session of either FP3 or FP4, that rider may participate in QP1, where he/she must achieve a lap time of at least 107% of the fastest rider in QP1 to be allowed to start the race (unless QP1 is cancelled in which case the rider may start the race).

1.16 Grid Positions

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

1.16.2 For all classes, the Grid will be arranged in the "in echelon" 3-3-3-3 configuration.

Each line will be offset.

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

1.16.3 A. Moto2 and Moto3

Grid positions will be based on the fastest time recorded by the riders in all qualifying practice.

In the case where all qualifying practice have been cancelled, the grid position will be based on the fastest time recorded by the riders in all free practices.

B. MotoGP Class

i) Grid positions will be determined by the fastest lap time recorded by each rider in the Free Practice (FP) sessions and two Qualifying (QP) sessions as follows:

ii) Based on combined practice times, the ten fastest riders in FP1, FP2, and FP3 go through to QP2.

iii) All other riders take part in QP1, provided they are qualified according to Art. 1.15.5.B. The fastest two riders from QP1 progress to QP2.

iv) The twelve riders in QP2 will take the first 12 grid positions according to their fastest lap time in QP2.

If a rider does not record a lap time in QP2 he/she will start from 12th grid position. In the case of more than one rider not recording a QP2 time, their grid positions from 12 upwards will be determined by their combined lap times of FP1, FP2 and FP3.

v) The riders not in the first two positions of QP1 will take grid positions 13 and onwards according to their fastest lap time in QP1.

If any qualified riders do not record a lap time in QP1 they will start from the back of the grid, in order of their combined times from FP1, FP2,and FP3.

vi) In the case where QP1 or QP2 or both are cancelled, the grid positions will be determined by the combined fastest lap times recorded by the riders of the affected group, in FP1, FP2 and FP3.

In the case of only QP1 being cancelled, then the 11th and 12th fastest riders from FP1, FP2 and FP3 combined will go through to QP2.

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

1.16.5 The final grid will be published after the warm up has been completed, at the latest one hour before the start of the race.

1.17 Races

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

Minimum 95 km Maximum 130 km

and will be determined by the Permanent Bureau after publication of the calendar.

1.17.2 The length of a race may only be varied by the Race Direction, and may be outside the parameters described in 1.17.1.

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 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 may they push onto the grid from the pit lane.

2. Approximately 15 Minutes (20 minutes for MotoGP only, except in the case of a restarted or rescheduled race) before the Start of the 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 machines in MotoGP only, or refuel.

3. Approximately 10 Minutes (15 minutes for MotoGP only, except in the case of a restarted or rescheduled race) before the Start of the 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 their mechanics and other staff including one person who may hold an umbrella. All attendants on the grid must wear a “Grid Pass”.

Riders in the MotoGP class only, having taken up their grid position, must take off their helmets, except in the case of a restarted or wet race.

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 may at this stage make adjustments to the machine or change tyres to suit the track conditions.

   Tyre warmers may be used on the grid.

   Riders may use a generator to power tyre warmers on the grid. Only one generator per machine may be used. The generator must be of the “hand carried” type and have a maximum output capacity of two kilowatts.

   Starter engines may also be used on the grid.

   Generator and starter engines should be located at the rear of the motorcycles.

   All adjustments must be completed by the display of the 3-Minute board. After this board is displayed, riders who still wish to make adjustments must push their machine to the pit lane. Such riders and their machines must be clear of the grid and in the pit lane before the display of the 1-Minute board, where they may continue to make adjustments, or change machine in MotoGP only. Such riders will start the warm up lap from the pit lane and will start the race from the back of the grid.

8. Refuelling or changing fuel tank on the grid is forbidden.

9. 5 minutes before the start of the Warm Up Lap - Display of 5-Minute Board on the grid.

10. 3 minutes before the start of the Warm Up Lap - Display of 3-Minute Board on the grid.

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

At this point, all persons other than two mechanics per rider in the Moto2 and Moto3 classes, and three mechanics per rider in MotoGP, the person holding the umbrella for the rider, the television crew of the host broadcaster and essential officials, must leave the grid.

The MotoGP riders must put their helmets on.

No person (except essential officials) is allowed to go on the grid at this point.

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 machines 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 machine and will then vacate the grid.

12. 30 seconds before the start of the Warm Up Lap - Display of 30-Second 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 machine must remove it to the pit lane, under the control of the grid marshals, where he may make further attempts to start it, or change machine in MotoGP. 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.

    In the interest of safety, should a rider stall his machine, he may be assisted to restart. If, after a reasonable period, the engine does not start, then the rider will be pushed into the pit lane where his mechanics may provide assistance, or where the rider may change machine in MotoGP only.

    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 have passed the pit lane exit, 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 or behind the front line and between the side lines defining the grid position and keep their engines running. If two or more riders must start from the back of the grid, they will take up position in the order in which they qualified for the race.

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

Any rider who arrives after the safety car has taken up its position at the back of the grid will be directed by grid marshals to the last place on the grid and will start the race from there. In the case of more than one rider arriving to the grid after the safety car, they will be directed to the last places on the grid, in the order they arrive to the grid.

Any rider who encounters a problem with his machine on the warm up lap may return to the pit lane and make repairs, or change machine in MotoGP only.

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 attempt to delay the start by any other means.

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 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 a set of car batteries or to an U.P.S. (Uninterruptible 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 required to carry out the ride through described under article 1.19.

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, Race Direction will be the sole judge of whether an advantage has been gained.

Race Direction will decide if a penalty will be imposed **for taking advantage by anticipating the start** and must **communicate the penalty to the rider** before the end of the fourth lap.

15. If, after the start of the race, a rider stalls his machine, then he may be assisted by being pushed along the track until the engine starts.

    If, after a reasonable period, the engine does not start, then the rider will be pushed into the pit lane, where his mechanics may provide assistance, or where the rider may change machine in MotoGP only.

16. After the riders have passed the exit of the pit **road**, **the** green light **at the pit lane exit will be switched on** to start any riders still in the pit lane.

    The exit of the pit road is defined as the point where the pit road joins the circuit, or as defined by Race Direction (refer to Art. 1.21.21).

17. Unless the race is interrupted, no further changes of machines are permitted. **Except that a rider who has not crossed the start line to start the race, is permitted to change machines up until the leading rider has passed the finish line at the end of his first lap. This change of machine is defined as when the second machine crosses the timing point at the pit exit lights.**

    After this time, in the MotoGP class only, **machine changes are permitted only under the following circumstances:**

    - If the race has been declared wet, according to Art. 1.20 .
    - If the White Flags have been displayed indicating that machine changes are permitted, according to Art. 1.22.2 .

    In both cases, tyre warmers, changing tyres and adjustments are permitted on the machine in the pits and in the pit-lane. **There are no restrictions on the type of tyres fitted to either of the machines.**

The spare machine may remain inside the pit box until such time as it is used in the race, but any exchange of machine must be made in the pit lane. **The rider must enter pit lane with his machine to make the exchange.**

All exchanges of machine in pit lane must follow the protocols published by Race Direction, that is:

- **The spare machine must be in the position as indicated by Officials prior to the race.**
- **The machine entering the pits must stop between the spare machine and the pit box, it may not stop on the pit lane side of the spare machine.**
- **It is not permitted to ride behind (pit box side) the spare machine of another rider.**
- **The team is responsible for the safe release of the rider. The rider leaving his machine change position must give way to approaching riders on pit lane who have right of way.**
- **The team is responsible for ensuring none of their equipment, motorcycles or staff impede the progress of another team or rider in any way.**

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

18. 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 a marshal will wave a yellow flag at each row of the starting grid from the signalling platform.
    - Riders must stay in their grid position with helmets on, engines may be switched off.

- The machine(s) which caused the Start Delayed procedure will be removed to the pit lane, regardless of what work is needed to restart the machine. If they can be restarted or a spare machine is taken (MotoGP class) 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 3 mechanics per rider (MotoGP class) or 2 mechanics per rider (Moto2, Moto3 classes) 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, guests, umbrella-holders or 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-Minute 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-Second boards the riders will complete an additional warm up lap. The race distance will be reduced by one lap.

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

19. Rain on Grid

If the pit lane is opened for the sighting lap with the track dry but the track becomes wet during or after the normal sighting lap (i.e. when riders are on the track or on the grid), the Starter may invoke the following procedure. This procedure does not apply after the start of the warm up lap, 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.

(Note: as climatic conditions and their severity can never be accurately forecast 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 IRTA staff.)

1. Moto2 and Moto3 Classes

- **The Start Delayed board is displayed. This may be before or after the normal five minute countdown has started on the grid.**
- **Wheels may be changed and adjustments made only on the grid.**
- **Approximately five minutes after the Start Delayed board is displayed, the 5 Minute board is shown and a 5-3-1-30sec countdown is made.**
- **Team members must leave the grid as usual (refer to Art. 1.18.10), 11), 12) above). Ie. 3 Minute board: adjustments completed, 1 Minute board: tyre warmers removed, 30 Second board: start engines.**
- **After the green flag, riders make one additional sighting lap and take up their original grid positions.**
- **Three minutes after the display of the green flag for the extra sighting lap the normal pre-race countdown is resumed at the 5 Minute board. Mechanics may return to the grid to assist the riders, change wheels and make adjustments, but journalists and guests will not be re-admitted to the grid at this stage. Mechanics must leave the grid following the normal 3 Minute, 1 Minute, 30 Second rules (as per Arts. 1.18.10),11),12) above).**
- **The race distance is reduced to 2/3 of the original distance.**

2. MotoGP Class

- **The Start Delayed board is displayed. This may be before or after the normal five minute countdown has started on the grid.**
- **All machines must be pushed off the grid with wheel changes and adjustments being made in pit lane, or machines changed.**
- **Machines may be refuelled in pit lane.**
- **Approximately five minutes after the Start Delayed board is displayed, a 5 Minute board is shown for a 5-4-3-2-1 countdown made at the pit lane exit.**
- **The pit lane exit will be opened for only three minutes and riders make one or more additional sighting lap before taking up their original grid positions. If more than one sighting lap is made, the rider must pass through pit lane.**

- Three minutes after the closing of the pit lane exit for the extra sighting lap the normal pre-race countdown is resumed at the 5 Minute board. Mechanics may return to the grid to assist the riders, change wheels and make adjustments, but journalists and guests will not be re-admitted to the grid at this stage. Mechanics must leave the grid following the normal 3 Minute, 1 Minute, 30 Second rules (as per Arts. 1.18.10),11),12) above).
- The race distance is unchanged.

20. Wet Race Start (following all dry practice)

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 and change of machine (MotoGP Class only) is permitted in pit lane during the sighting laps 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 grid 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 for Moto3 and Moto2.

  The Warm Up lap and Race Start will be on time for MotoGP (that is, a shorter period on the grid).
- Race distances remain unchanged.

1.19 Ride Through Procedure

During the race, the rider will 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. 1.21.14), 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 ride through after the start of the second part of the race.

In the case of a rider carrying forward a penalty for anticipation of the start, into the second part of an interrupted race and subsequently found to have anticipated the second start, the rider will be shown the black flag.

A yellow board (100 cm horizontal x 80 cm vertical) displaying the riders' numbers (black colour) will be shown at the 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 5 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 of 20 seconds.

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 Moto2 and Moto3 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.

1.20.2 MotoGP race

A race will not be interrupted for climatic reasons and riders who wish to change machine (when allowed), tyres or make adjustments must enter the pits and do so during the actual 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 article 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 will be penalised with one of the following penalties: penalty points **-** fine - change of position - ride through – time penalty – drop of any number of grid position at the rider's next race – disqualification - withdrawal of Championship points - suspension.

3. Riders should use only the track and the pit-lane. However, if a rider accidentally leaves the track then he may rejoin it at the place indicated by the officials or at a place which does not provide an advantage to him.

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.

If a change of position penalty is imposed a board will be displayed for the rider on the finish line during a maximum of 5 laps. If the rider did not go back after the board has been presented 5 times, he will be penalised by a ride through.

Further penalties (such as penalty points - fine - ride through - disqualification - withdrawal of Championship points) 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. The marshals may assist the rider to the extent of helping him to lift the machine and holding it whilst any repairs or adjustments are made. The marshal may then assist him to re-start the machine.

5. If the rider intends to retire, then he must park his motorcycle in a safe area as indicated by the marshals.

6. If the rider encounters a problem with the machine which will result in his retirement from the practice or the race, then he should not attempt to tour at reduced speed to the pits but should pull off the track and park his machine in a safe place as indicated by the marshals.

7. Riders who are returning slowly to the pits for remedial work should ensure that they travel as far as possible off the racing line.

8. Riders may enter the pits during the race, but taking the motorcycle inside the pit box is not permitted.

   In the MotoGP class, in the case of an exchange of machine during a race (Art. 1.18.17), if a machine that has been active in the race enters the pit box, this machine is deemed to be retired and may not be used again in the race.

   Adding and removing fuel in pit lane during the race 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 machine or to be transported by another rider on his machine (exception: Another rider or by another rider after the chequered flag or red flag).

11. Riders must not ride or push 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 (as per Art. 2.4.3.5.1), 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.

13. All machines are required to carry onboard camera(s) if requested by the **Championship promoter.**

    The cameras and associated equipment must be carried during all practice sessions and the race (refer to Art. 2.x.4.2.11 for technical details).

14. 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 fine of 150 €uros for each offence.

    Any rider who exceeds the pit lane speed limit during a race will be penalised with a ride through.

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

15. Stopping on the track during practices and races is forbidden.

16. 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.

17. If **any** rider wishes to parade a flag **or engage in any celebration after the chequered flag**, he 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.
It is forbidden to stop on the start-finish straight after the chequered flag for any celebrations of any kind.

18. It is not permitted to ride racing motorcycles within the circuit other than in the pit lane or on the track.

19. After the chequered flag, riders riding on the track must wear a safety helmet until they stop on the pit lane/parc fermé.

20. Penalties for infringement of Article 2.x.3.3 (Engine durability in MotoGP and Moto3).

- Infringement before the race: the rider will start the race from the pit lane **5** seconds after the green light is on at the pit lane exit.
- Infringement during the race: ride through.

21. Pit Lane Exit

The pit lane exit road will be defined by 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 (practice and race).

Infractions may be penalised with an instant penalty by Race Direction.

1.22 Flags and Lights

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

All flags are presented waved.

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.

- **Yellow and Red Striped Flag**

  The adhesion on this section of the track could be affected by any reason other than rain.

  This flag must be shown waved at the flag marshal post.

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

  Drops of rain on this section of the track.

  This flag must be waved at the flag marshal post.

- **White Flag with diagonal red cross** (stroke width of the cross: between 10 and 13 cm) **+ Yellow and Red Striped Flag**

  Rain on this section of the track.

  These flags must be waved together at the flag marshal post.

- **Blue Flag**

  Waved at the flag marshal post, this flag indicates to a rider that he is about to be overtaken.

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

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

  Any Infringement of this rule **may** be penalized **by Race Direction.**

- **Chequered Black/White Flag**

  This flag will be waved at the finish line to indicate the finish of race or practice session.

- **Chequered Black/White Flag and Blue Flag**

  The chequered black/white flag will be waved together with the blue flag at the finish line on track level 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**

  Will be switched on at the pit lane exit at all time during practices and races.

1.22.2 Flags Which Convey Information and Instructions:

- **Yellow Flag**

  Waved at each row of the starting grid, this flag indicates 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 riders must slow down and be prepared to stop. Overtaking is forbidden up until the point where the green flag is waved.

  Any infringement of this rule during a practice session will result in the cancellation of the time of the lap during which the infraction occurred.

  In case of infringement of this rule during the race, the rider must go back the number of positions decided by the Race Direction. A board will be displayed for the rider on the finish line during a maximum of 5 laps. If the rider did not go back after the board has been presented 5 times, he will be penalized by a ride through.

In both cases, further penalties may also be imposed.

If immediately after having overtaken, the rider realises that he **committed** an infraction, he must raise his hand and let pass the rider(s) that he has overtaken. In this case, no penalty will 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 ups and races.

- **White Flag**

  Waved at the flag marshal post during the race, this flag indicates that the riders are allowed to change machine.

  Only the Race Direction can take this decision.

- **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. Riders are not allowed to exit the pit lane.

  Any infringement of this rule **may** be penalised **by Race Direction.**

  The red flag will be shown motionless on 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 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).

  Any infringement of this rule **may** be penalised **by Race Direction.**

- **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 the rider's number. This flag informs the rider that his motorcycle has mechanical problems likely to endanger himself or others, and that he must immediately leave the track.

  Any infringement of this rule **may** be penalised **by Race Direction.**

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" 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, he will be shown a chequered flag by an official located at the finish line, behind the 1st 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 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 of ties, the riders concerned will be ranked in the order of the best lap time made during the race.

1.24.3 The results will be based on the order in which the riders cross the line and the number of laps completed.

1.24.4 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 machine.

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.

1.25 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 and he will switch on the red lights 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

Exception: if the race is interrupted after the chequered flag, the following procedure will apply:

1. 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.

2. 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.

3. The complete classification will be established by combining both partial classifications as per the lap/time procedure.

   At the time the red flag is displayed, riders who are not actively competing in the race will not be classified.

   Within 5 minutes after the red flag has been displayed, riders who have not entered the pit lane, pushing or riding on their motorcycle, will not be classified.

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 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 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 original race distance rounded down to the nearest whole number of laps have been completed by the leader of the race and by all other riders on the same lap as the leader, then:

- For the Moto2 and Moto3 classes, the race will be deemed to have been completed and full Championship points will be awarded.
- For the MotoGP class, the race will be restarted for a minimum of 5 laps according to Art. 1.26.

If it is found impossible to restart the race, then the results will count and full Championship points will be awarded.

1.26 Re-Starting a race that has been interrupted

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 Clerk of the Course 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.

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 identical to a normal start with sighting laps, warm-up lap, etc, **and all classes including MotoGP will follow a 15-minute start procedure**.

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

i) In the case of situation described in 1.25.2 (less than 3 laps completed) above:

a) All riders may re-start.

b) Motorcycles may be repaired or changed.

Refuelling is permitted.

c) - For Moto2 and Moto3, the number of laps will be two-thirds of the original race distance rounded down to the nearest whole number of laps.

- For MotoGP, the number of laps will be the same as the original race distance.

d) The grid positions will be as for the original race.

ii) In the case of situation described in 1.25.3 (3 laps or more and less than two-thirds completed) and 1.25.4 (two-thirds completed for MotoGP only) above:

a) Only riders who are classified as finishers in the first race may re-start.

b) Motorcycles may be repaired or changed. Refuelling is permitted.

c) - For Moto2 and Moto3, 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.

- For MotoGP, the number of laps of the second race will be the number of laps required to complete the original race distance with a minimum of 5 laps.

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. 1.24.4 will apply.

1.26.5 Any penalties applying to a rider in the first race. e.g. a drop of grid position or starting the race from pit lane, will also apply to the restarted race.

However, in situations where more than 50% of the original race distance has been completed in the first part then a penalty of starting the race from pit lane will be replaced by the penalty of starting the resumed race from last place on the grid.

1.26.6 Should a re-started race be interrupted and 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:

For Moto2 and Moto3

a) If the re-started race is interrupted when 5 or more laps have been completed, the race will be deemed to have been completed and full Championship points awarded. The race classification will be according to Art. 1.26.4.ii. e.

b) If the re-started race is interrupted when less than 5 laps have been completed, the race would be re-started a further time if possible, for the same number of laps as the first re-start. **The grid will be based on the results of this interrupted race provided 3 or 4 full laps were completed (a race of less than 3 laps will be null and void and will not determine the grid for a re-started race).**

c) If that further re-started race (third race) is interrupted when less than 5 laps have been completed, no further re-starts will be made. The race results will then be determined by the first part of the race and full Championship points awarded, provided that in the first part of the race 5 laps or more had been completed.

d) If the first race is re-started and none of the races (original or subsequent re-starts) have completed 5 or more laps, then the race is deemed to be cancelled and no Championship points will be awarded.

e) Race Direction may reschedule re-started races in the race programme as necessary.

For MotoGP

a) If the re-started race is interrupted at any point before completion then it will be re-started again if possible, with the number of laps required to complete the full race distance, with a minimum of 5 laps. The number of laps required to complete full race distance is the full number of laps less the number of laps completed in previous starts. Art. 1.25.2 will apply, ie. a race of less than 3 laps will be null and void and will not count towards determining the number of laps for a re-started race. **If it is not possible to re-start then the results will be determined by the previous race where the most laps were completed, and full Championship points awarded. If less than 5 laps have been completed in any race then the race is deemed to be cancelled and no Championship points will be awarded.**

b) If that further re-started race (third race) is interrupted, then the Race Direction will determine if it is practical to re-start the race and will define the number of laps to be completed, with a minimum of 5 laps. If it is not possible to re-start then the results will be determined by the previous race where the most laps were completed**, and full Championship points awarded**.

If less than 5 laps have been completed in any race then the race is deemed to be cancelled and no Championship points will be awarded.

c) If the next re-started race (fourth race) is interrupted when 5 or more laps have been completed the race will be deemed to have been completed and full Championship points awarded. The race classification will be according to Art. 1.26.4.ii. e. If the race is interrupted when less than 5 laps have been completed, no further re-starts will be made. Then the results will be determined by the previous race where the most laps were completed. If less than 5 laps have been completed in any race then the race is deemed to be cancelled and no Championship points will be awarded.

d) In all cases where results are to be determined by the previous race with the most laps completed, if the same number of laps have been completed in two or more races, the race run latest will determine the results.

1.27 Check Area

At the end of the race, or the final part of a race that has been interrupted, the first three motorcycles plus any other motorcycles specified by the Technical Director, must be removed to a check area pending inspection by the Technical Scrutineers or potential protests. Machines will normally be released from the check area 60 minutes after the finish of the race.

1.28 Championship Points and Classification

1.28.1 Riders and Constructors will compete for the FIM Road Racing World Championship Grand Prix.

Teams will compete for a MotoGP Team 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 Teams in the MotoGP class will, in principle, be comprised of two riders. The names of the teams will be composed of three elements:

1. The name of the Manufacturer of the motorcycle or engine. (Mandatory).
2. The name of the Team. (Mandatory except where the Team name is the same as the Manufacturer).
3. The name of one principal Sponsor. (Optional).

Teams will compete for a Championship. For teams with more than one rider, in each race, points scored by the best placed rider and the worst placed rider in the team, including substitutes and replacements, will count towards the Team Championship.

In the case of a Team entered in an event with more than two riders, but starting the race with one/two riders, only the best placed rider will score points counting towards the Team Championship.

Wild card riders will not score points for the Team Championship.

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

1st	25 points
2nd	20 points
3rd	16 points
4th	13 points
5th	11 points
6th	10 points
7th	9 points
8th	8 points
9th	7 points
10th	6 points
11th	5 points
12th	4 points
13th	3 points
14th	2 points
15th	1 point

1.28.6 All races will count for the Championship classification.

1.28.7 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.

1.28.8 The World Champions in each category are obliged to attend an official FIM ceremony.

1.29 Instructions and Communications to Competitors

1.29.1 Instructions may be given by the Race Director and/or Clerk of the Course to Teams and/or Riders by means of special circulars in accordance with the Regulations. Circulars must be posted on the official notice board and placed in the special team mail box which will be provided by IRTA at each Event. Posting on the official notice board and placing in the team mail box 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 or the Clerk of the Course 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 or the Clerk of the Course 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:

- 8 for MotoGP and
- 6 for Moto3 and Moto2.

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

2. TECHNICAL REGULATIONS

2.1 Introduction

2.1.1 The Championship is for motorcycles, i.e. vehicles with two wheels that make one track propelled 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:

MotoGP **(ref. Section 2.4)**	Up to 1000cc. 4-stroke only, maximum 4 cylinders, maximum cylinder bore 81 mm.
Moto2 **(ref. Section 2.5)**	Moto2 Official Engine
Moto3 **(ref. Section 2.6)**	Up to 250cc. 4-stroke only, single cylinder only, maximum cylinder bore 81 mm.

2.4 MotoGP Class Technical Regulations

2.4.1 Definition

Motorcycles participating in the MotoGP class must be prototypes. Those that are not entered by a member of MSMA must be approved for participation by the Grand Prix Commission.

2.4.2 Concessions

Various concessions in the Sporting and Technical regulations are granted to new MotoGP manufacturers entering the class for the first time since 2013, and to those manufacturers who have not achieved a race win in dry conditions since the 2013 season.

The granting and removal of concessions is based on the accrual by the manufacturer of Concession Points during races, in dry or wet conditions, as follows:

First place = 3 concession points
Second place = 2 concession points
Third place = 1 concession point

Any manufacturer who currently benefits from concessions and who accrues 6 concession points in dry or wet conditions during the 2015 season, will lose all concessions from the start of the following season. [GPC Assen, 26.6.2015]

2.4.3 Engines

2.4.3.1 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.

4. Factory Engine Homologation is applicable to Manufacturer machines entered under the Factory Option (Art. 2.4.3.5.4), as follows:

   NB: Refer to clause h) below for Manufacturer exemptions

   a) A homologated MotoGP Factory engine is one which has all parts included within the seals (Art. 2.4.3.3.2) identical in every respect to the parts included within the seals of a sample engine delivered to the MotoGP Technical Director no later than close of Technical Control of the first event (Art. 2.4.3.1.5.e).i, below), or where all the parts included within the seals are the same for all sealed engines of the same team (Art. 2.4.3.1.5.e).ii, below). All parts not within the seals are free to be changed. Once homologated in accordance with the above, no changes may be made to the design or construction of the homologated parts for the duration of the homologation period laid out in Article 2.4.3.1.5.f).

b) Exceptions can be made for sealed parts that are solely associated with safety issues and which have no performance benefit, which may be changed during the homologation period with the unanimous consent of the MSMA MotoGP Commission. Such exceptions will be on a strictly limited basis to correct a proven problem which may have safety implications (eg. a faulty batch of parts, with supporting documentation from the parts supplier to identify the problem). Engines already sealed, including used engines can be updated in this way with the unanimous consent of the MSMA MotoGP Commission and under supervision of the MotoGP Technical Director or his staff. If a competitor intends to modify the homologated engine in this way he must provide precise details of the planned changes to the MSMA MotoGP Commission. In each case, only the approved changes may be made.

c) The supplier of a homologated engine and/or the team using the homologated engine must comply with the requirements as determined by Race Direction to satisfy the MotoGP Technical Director that an engine used at an Event is indeed identical to the corresponding sample engine sealed and identified by the Technical Director (Art. 2.4.3.5.1.e).i, below).

d) If the Technical Director requests that an engine is opened for verification, the following procedures will apply:

- **The checks will be carried out before the end of Technical Control at the following European event, at a time agreed between the Technical Director and the manufacturer or team involved, using one of these options:**

  I. At the end of the event where the inspection request was made.

  II. Between events, at the European workshop of the manufacturer or team. The Technical Director or his representative will attend and oversee the inspection.

  III. At the following European event, before the end of Technical Control.

- **Inspection checks will not be carried out at events outside of Europe, the check will be scheduled for the next European event.**

- **No inspection check would be carried out until such time as the rider in question has 3 engines in allocation and available for use.**

- **If an inspected engine is found to comply with the regulations, the manufacturer or team has the right to rebuild the engine with any new homologated parts they wish, and re-submit the engine for sealing. Such a rebuilt engine will be limited to 3600 km of use in total, including any use before the inspection was made.**
- **If an inspected engine is found to not comply with the regulations, it will be withdrawn from allocation and not replaced. Any penalties imposed by Race Direction may be applied retrospectively to each time the non-compliant engine was used at an event.**
- **If an engine inspection is the result of a protest, the following conditions will apply:**

  I. All protests will first be referred to race Direction for approval to proceed. Protests may be denied approval to proceed if they are deemed by Race Direction to be frivolous or an attempt to confer advantage on the protested team.

  II. If the protest is unfounded due to the engine being in conformity with the regulations, the party lodging the protest will be required to pay to the protested manufacturer or team, and amount of 5,000 €uros to defray freight and rebuilding expenses.

e) Each manufacturer must supply the same specification engine to all riders in one team, specifications may be varied between different teams of the same manufacturer.

For engine specification verification, manufacturers may choose between two options:

I. give one sample engine per specification, to be sealed as per Art. 2.4.3.3.2. prior to the close of Technical Control of the first event of the season. All the parts in this engine that are multiple examples of the same part, eg. piston, conrod, valve, etc. can be fitted in this sample engine using just one piece, eg. one piston, one conrod, etc. All the parts in this engine can be used parts, or

II. seal all engines available for a rider for the season before the first day of the first event. All such engines should be prepared ready for the seals required under Art. 2.4.3.3.2 to be fitted, and will be sealed by the Technical Director or his staff before the

first practice session of the first Event of the season. All engines for the rider must be the same specification, and by choosing this option it is not necessary give a sample engine prior to the close of Technical Control of the first event. However, the first engine from each rider which is declared end-of-life and withdrawn from allocation by the team will be kept sealed and held as the sample engine to be used in any engine inspections.

f) The above homologation procedure applies for one full season to machines entered by Manufacturer teams under the Factory Option, as per Art. 2.4.3.5.4) (a maximum of two riders entered by the manufacturer's own team and a further two riders entered by independent teams who lease machines from the manufacturer, as per Art. 1.11.10). Machines entered under the Open category (Art. 2.4.3.5.3) are not subject to the homologation procedure.

g) The above homologation procedure applies to all engines used by the rider, including any extra engines taken, above the allocated number of 5 engines (Art. 2.4.3.3.4).

h) **An exemption is granted for a Motorcycle Manufacturer with entries under the Factory Option who has not achieved a race win in dry conditions during the 2013 season, or a new Motorcycle Manufacturer entering the Championship for the first time since the 2013 season. Such Manufacturers will be exempt from these Factory Engine Homologation regulations, and this concession remains valid until the start of the 2016 season.**

Note that for 2016 the following regulations have been approved by the Grand Prix Commission. [GPC Assen, 26.6.2015], GPC Motegi 10.10.2015]

- **All MotoGP engines will be subject to homologation unless the manufacturer concerned is eligible for concessions on engine homologation.**
- **Each manufacturer may homologate up to a maximum of three different engine specifications for the season. These three specifications may include specifications homologated in a previous season provided that such engines comply with the current technical regulations.**

- **Before the first event of the season, each rider must nominate one specification of homologated engine to be used exclusively for the season. In teams other than the nominated Factory Team it is permitted that this specification may be different for each rider.**
- **Each manufacturer must nominate one team as it's Factory Team and each rider in that team must use the same homologated engine specification.**
- **According to Art. 2.4.3.1.4.e) if a sample engine is presented for sealing, then any different specification engines may be represented by parts only. Only the parts that are different from the initial sample engine are required to be presented, in a container suitable for security sealing. [GPC Motegi, 10.10.2015]**

2.4.3.3 Engine Durability

MotoGP Class

1. The number of engines available for use by each permanent contracted rider is limited to 12 **for all of the scheduled races of the season. The limit applies to all practice sessions and races at GP events, engines used for testing outside of GP events are not controlled.**

The following terms and exceptions will apply:

a) Riders entered under the Factory Option will be limited to 5 engines per season. These engines will be subject to the Factory Engine Homologation regulations (Art. 2.4.3.1.5), which freezes engine design and internal parts.

b) An exemption is granted for a Motorcycle Manufacturer with entries under the Factory Option who has not achieved a race win in dry conditions during the 2013 season, or a new Motorcycle Manufacturer entering the Championship for the first time since the 2013 season. Such Manufacturers will be limited to 12 engines per rider per season, and engines are not subject to the Factory Engine Homologation regulations. This concession remains valid until the start of the 2016 season.

c) Should a rider be replaced for any reason, the replacement rider will be deemed to be the original rider for purposes of engine allocation.

d) Each Wild Card entry is allowed 3 engines for their exclusive use during each event.

2. The engines available for the exclusive use of each rider must be marked and sealed by the Technical Director or staff prior to first use. It is the Team's obligation to register any new engine with the Technical Director prior to use. Once registered and used for the first time, engines may not be swapped between riders, even within the same team. A new engine is deemed to be used when the motorcycle with that engine crosses the transponder timing point at the pit lane exit.

3. The engines will be sealed (e.g. by means of wiring and identification tabs, stickers, etc) so that:

   a) the timing system is not accessible (e.g. the head cover must be wired to the cylinder head),

   b) the timing driving system is not accessible (e.g. the gear train/ chain cover is wired so that it cannot be removed),

   c) the cylinder head and the cylinders block (if any) cannot be removed from the engine (e.g. the cylinder head is wired to the cylinders block and the cylinders block is wired to the engine crankcase),

   d) the crankcase cannot be opened (e.g. the crankcase halves are wired together).

   All the parts that are accessible without removing the sealing wiring can be replaced. Breaking or removing the seal or wiring without supervision by the Technical Director or staff will be deemed to be "engine rebuilding" and engines with broken, tampered with or missing security seals will be treated as a new engine in the allocation.

4. Should a competitor, for any reason (e.g. mechanical failure, crash damage, etc.) require the use of another engine above their allocation, the Technical Director must be informed before the new engine is used, and Race Direction will apply the appropriate penalty according to the Sporting Regulations **(Art. 1.21.20)**.

   The damaged engine will be removed from the allocation and if it is used again, it will be treated as a new engine with the appropriate penalty.

5. There is no limit to the number of times a sealed, allocated engine can be fitted to and used in a motorcycle, provided the security seal is not broken or removed. Replacing an engine with another sealed engine (new or used) from the rider's allocation is allowed with no penalty.

6. To prevent the running of a used, allocated engine outside of MotoGP events, all allocated engines will have security seals placed over either exhaust or inlet ports (on at least one cylinder bank, in the case of V-type engines) before leaving the circuit. Teams wishing to re-use such an allocated and sealed engine must request the Technical Director or staff to remove the security seals. If the Technical Director or his staff finds that the security seals are not intact, the engine will be deemed to be a new engine in the allocation, with the appropriate penalty.

   Note: from 2016 Article 2.4.3.3.6) will be deleted [GP Commission Motegi, 10.10.2015]

7. It will be possible to break the seals if all the following conditions apply:

   a) the machine is entered in the Open category,

   b) for the sole purpose of changing the gearbox and/or primary ratios, on an engine design where seals need to be removed for internal gearbox access,

   c) under supervision of the Technical Director and staff, at a time and place determined by the Technical Director.

2.4.3.5 Electronics

1. GPS

In the MotoGP class, satellite Global Positioning Systems (GPS and similar) are not permitted, except those GPS units supplied by the Organisers and used for their media and promotional purposes. No GPS or similar system may be connected (wired or wireless) to any part of the machine, other than as directed by the **Championship** Organiser **(hereinafter "Organiser")**. Specifically it is prohibited to control any aspect of engine or motorcycle performance using the GPS signal. The Organisers may supply the GPS data to each team only after practice (or race) data download.

2. Tyre Sensors

Tyre temperature/pressure sensors are permitted in all classes.

3. ECU Open Category

The use of the official MotoGP Electronic Control Unit (ECU) supplied by the Organiser is compulsory for all machines.

a) The full Official MotoGP ECU Kit is compulsory for all machines entered in the Open category. This consists of:

- Official MotoGP ECU, including internal datalogger.
- Official MotoGP engine and chassis control software.
- Calibration and datalogging tools.
- Inertial platform.
- Dashboard.
- Switchboard.

b) Only the Official MotoGP ECU Kit hardware and software is allowed, no additional dataloggers and dashboards are allowed.

The use of any additional device or module to modify the signals sent from the ECU to the actuators is forbidden. All engine management systems including injectors, bypass systems, variable intake systems and ignition must be operated exclusively by the original and unmodified ECU signal, with the the exception of those operated by modules allowed according to 2.4.3.5.3.c)i), provided that such allowed modules function as "power modules" according to the definition in 2.4.3.5.4.a) (ie. the "logic" signal comes unmodified from the ECU, and the power may come from the allowed external module).

c) Sensors and modules:

i) Engine/chassis control strategies:

- No external module of any kind can be connected to the MotoGP ECU engine/chassis management Input/Outputs, with the exemptions of modules specifically allowed by the Organiser.
- Any kind of sensors are allowed, provided no change to make such sensors work is needed on any hardware or software part of the MotoGP ECU Kit.

ii) Datalogging:

- Any kind of sensors and external modules are allowed, provided no change to **allow** such sensors/modules **to be** logged is needed on any hardware or software part of the MotoGP ECU Kit.

Clarification: the same sensor can be used for both purposes of datalogging and engine/chassis control input, provided it is a “sensor” and not a “module”. Modules can be used only for datalogging purposes. To this extent a “sensor” is a one-to-one device that measures something physical and turns into an electric signal that can be used as an ECU input.

d) Datalogging of certain specified “maintenance” channels on the internal datalogger is compulsory, in order for the supplier to check for correct operation (no confidential team data will be included). To achieve this, an approved ECU data download connector is compulsory (refer to Table 8 in the Appendix). If the data download cable is a separate item and not permanently fixed to the machine, 3 examples of this cable must be delivered to the Technical Director prior to the end of Technical Control of the first race of the season.

4. Factory Option

As an exemption to 2.4.3.5.3) above, each Manufacturer (includes motorcycle manufacturers and chassis manufacturers) can choose up to 4 riders to enter under the Factory Option, with the following conditions:

a) The use the Official MotoGP ECU (and not the full MotoGP ECU Kit), with its internal data logger and BIOS software, for engine/chassis management is compulsory.

b) External modules and/or ECU access by CAN BUS are not controlled, but the following actuators must be driven directly by the ECU power outputs, or by mean of power modules*:

- ignition coils,
- injectors,
- ride-by-wire motors,
- variable intake trumpet motors,
- valves (e.g. pneumatic timing system valves, exhaust valves).

*A power module is a module that only has:

- an electric power input,
- an input from a MotoGP ECU power output,
- a power output.

b) Application software for engine and chassis control is not controlled, and it will be possible to write it in C or Matlab/Simulink languages.

c) Datalogging of certain specified “maintenance” channels (to be provided by BIOS software) on the internal datalogger is compulsory, in order for the supplier to check for correct operation (e.g. ECU temperature, vibration, etc. No confidential team data will be included).

d) An approved ECU data download connector (refer to Table 8 in the Appendix) is not compulsory, but if this not available, then the Technical Director may require that the ECU is removed from the machine to check for compliance of the BIOS software and working ECU parameters, as necessary.

e) Additional external dataloggers are allowed.

f) Dashboard, displays and switches are not controlled.

Note that Art. 2.3.4.5.4) Factory Option above, also affects the following articles:

1.15.1.1 Practice and Testing
2.4.3.3.1. a) and 2.4.3.3.1. b) Engine Durability
2.4.3.1.5 Factory Engine Homologation
2.4.4.5.5 Fuel Capacity
2.4.4.9.3 Tyre Restrictions

5. Wild Cards

For Wild Card entries ECU hardware and software, and dataloggers are not controlled, with the following related conditions:

- Wild Cards may use a maximum of 3 engines per event (Art. 2.4.3.3.1.d).
- Wild Cards entered by a Manufacturer with contracted rider(s) already entered under the Factory Option will have a maximum fuel tank capacity of 20 litres.

All other Wild Cards will have a maximum fuel tank capacity of 24 litres (Art. 2.4.4.5.5).

6. Official Software Development

A single official MotoGP ECU software for engine and chassis control will be implemented from the 2016 season. The strategies of this software will be based on the official software used in the Open category at the start of the 2015 seasons.

Motorcycle Manufacturers participating in the MotoGP class (Factory Option) in 2015 are invited to work in conjunction with the Organisers and the official ECU supplier on development of this official software, with the following conditions:

a) Such manufacturers must agree to stop development of their own MotoGP class software by 30 June 2015 ('software freeze'). From 1 July 2015, software development will be focused on the official software.

b) If a manufacturer chooses not to stop their own software development by 30 June 2015, they will not be permitted to participate in the official software development program until such time as they agree to stop their own development.

c) The following exemptions to the software freeze are permitted, only with the unanimous prior agreement of the manufacturers participating as Factory Option in 2014:

I. For safety reasons, updates to a manufacturer's own software is permitted after 30 June 2015 in order to fix bugs or errors. In order to verify that only bug-fixing is carried out, before using any such modified software the manufacturer must first apply to the Technical Director and deliver to him detailed documentation including the reason for the changes, the memory locations involved, logic of the changes, and effect of the changes.

II. Manufacturers new to the MotoGP class in 2015 who were not participating as contracted entries in 2014, may continue to develop their own software until the end of the 2015 season. With the express consent of the 2014 Factory Option manufacturers, such new manufacturers may also participate in the official 2016 software development.

d) In order to enforce the software freeze from 1 July 2015, the manufacturers wishing to participate in the official 2016 software development must provide a sample of all versions of their frozen software to the Technical Director as follows:

- **For Factory Option entries, at the first race after 1 July 2015 (ie. the German GP), each team must compete in the race using only that team's single and final frozen version of their manufacturer's software.**

- **The ECU will be removed from one Factory Option machine of each team at the conclusion of the race in secure conditions supervised by the Technical Director in Parc Ferme. This ECU will be sealed and kept as the sample frozen software for that team. The Organiser will not compensate the team with the supply of another ECU free of charge.**
- **If a manufacturer declares to the Technical Director that all of their Factory Option teams are using the same software version, the Technical Director may choose to take only one sample ECU for that manufacturer.**
- **The sample ECUs will remain in the possession of the Organisers until the expiry of the protest time after the last race of the season, and then returned to the relevant team.**
- **In case of a protest or at the request of the Technical Director, any ECU from a Factory Option entry may be removed and the software version compared with that of the sample ECU from the same team. Any differences in software that are not due solely to bug-fixing previously declared to the Technical Director, will be considered an infringement of the software freeze.**

e) From 1 July 2015 until the end of the 2016 season, if a change to the official software is requested unanimously by the 2014 contracted Factory Option manufacturers (Ducati, Honda, Yamaha), then the Organisers must adopt this modification, with the costs of such modification being the responsibility of these manufacturers.

f) From 1 July 2015 until the end of the 2016 season, any changes to the official software strategies requested by the Organisers must be approved unanimously by the 2014 contracted Factory Option manufacturers (Ducati, Honda, Yamaha) before they may be implemented (approval is not required for normal maintenance and bug-fixing which does not change the software strategy).

Note that the principles of the 2016 MotoGP electronics regulations have been agreed by the Grand Prix Commission and the MSMA. These regulations will include:

- **A single official MotoGP ECU software for engine and chassis control will be mandatory on all machines.**
- **The official MotoGP ECU hardware described in Art. 2.4.3.5.4 will be mandatory on all machines. Only this official MotoGP ECU may be used, and any ECU used on a MotoGP machine at a GP event must be registered with the Technical Director.**
- **All sensors and acquisition devices on MotoGP machines must be homologated as follows:**
  - **The motorcycle manufacturer must submit a homologation request to the Technical Director, detailing the sensor description / function, identification, supplier, price, and availability / lead-time. The deadline to submit homologation requests is 30 days before Technical Control at the first GP of the season (date to be confirmed, subject to the final pre-season test schedule).**
  - **Homologation will be valid for one season, and changes during the season will only be permitted in exceptional circumstances (eg. to rectify a safety issue) and upon unanimous request by the MSMA to the Technical Director.**
  - **The list of homologated sensors will be published by the FIM.**
  - **The relevant manufacturer must undertake to supply such homologated sensors to all teams under the same price and lead-time conditions.**
- **The following exceptions to homologation will apply:**
  - **I. Sensors included in the list of Free Devices (see below).**
  - **II. Non-homologated sensors are permitted for testing and for free practice sessions at events. Only homologated sensors may be used for Qualifying and Race.**
  - **III. Each manufacturer may nominate one Additional Sensor which may or may not be available to all MotoGP teams. This nominated sensor is permitted during all sessions**

including Qualifying and Race, but it may only be used for datalogging. It cannot be used as an input to any sensor or device other than the datalogger, and cannot have any effect on the ECU control strategies. The connection to the wiring harness must be identifiable by the Technical Director by means of the wiring connection from the sensor being yellow in colour (minimum 50 mm length of yellow colour). If the sensor is connected directly to a CAN converter the connection wiring between the sensor and the CAN must be yellow in colour. [GPC 12.9.15]

The deadline to submit the details of this additional sensor to the Technical Director is 30 days before Technical Control at the first GP of the season (date to be confirmed, subject to the final pre-season test schedule).

- **Apart from homologated sensors, there will be a list of Free Devices which are the only other devices allowed to communicate via CAN BUS with the ECU. Free Devices will include:**
  - **All actuators, such as fuel injectors, ignition coils, electric motors, actuation coils, fuel pumps, coolant pumps, engine lubricant pumps. [GPC 12.9.15]**
  - **Alternator and related Regulator/Powerbox. [GPC 12.9.15]**
  - **Dashboard and message display devices. [GPC 12.9.15]**
  - **Inertial Platforms (up to 2 IPs are permitted, CAN protocol homologated by the Organiser).**
  - **Wiring Harness.**
  - **Any device specifically allowed by the Organiser.**
- **If a proprietary device is allowed by the organiser (eg. calibration tool, external datalogger), all CAN protocols will be homologated by the Organiser. Any costs incurred by the manufacturer or official ECU supplier in enabling such communication and implementation, and any performance risks associated with such devices, will be borne by the manufacturer.**

- **Free Devices are free from homologation, but are subject to disclosure and checking by another manufacturer as follows:**
  - **A manufacturer ("checker") may request to check a free device from a specific machine of another manufacturer ("owner"). The device will beremoved by the Technical Director after the event and given to the checker.**
  - **The checker has 7 days to check the device, and a representative from the owner is entitled to be present during such checking if requested by the owner.**
  - **The details of the checking process and the results of the checking will be reported to the MSMA MotoGP members, and if necessary to the Technical Director.**
  - **If necessary, a checker may be required to refund the owner for any component damage or loss.**
  - **No manufacturer will be required to undergo more than 5 device checks per season, whether the same component or different components are involved (the wiring harness is considered to be a single component).**

2.4.3.6 Fuel System

MotoGP Class fuel system

1. In the MotoGP class the maximum permitted relative fuel pressure is 10 Bar, at a re-circulated flow rate of 50 litres/hour.

   a) It is mandatory to use an official approved fuel pressure regulator, as specified by the Technical Director. This official regulator must be fitted downstream of the fuel pump, such that the maximum fuel pressure available to the injectors is never more than 10 Bar.

   The official regulator manufacturer may supply regulators set at any lower pressure and/or any higher flow rate, as requested by MotoGP teams, provided these regulators are not capable of delivering more than 10 Bar at 50 litres/hour.

   b) Additional regulators may be used in conjunction with the official regulator to further reduce and control fuel pressure, but no device or strategy capable of increasing fuel pressure at the injectors above 10 Bar may be used anywhere in the system.

c) The approved fuel pressure regulator will be sealed, marked and certified by the regulator manufacturer, and may be inspected and/or removed for testing at any time by the Technical Director.

d) Teams must supply a schematic diagram of their fuel system including the location of the fuel pressure regulator when requested by the Technical Director

e) In measuring the fuel pressure and flow rate delivered by the regulator, the tolerance as specified by the official approved regulator manufacturer will be taken into account.

2.4.3.7 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.

2.4.3.8 Control Systems

1. The use of hydraulic and/or pneumatic pressurized powered systems is not allowed, with the exception of cylinder inlet/exhaust valve springs in the MotoGP class. 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.
   - Pneumatic engine valve closing systems are allowed in the MotoGP class only.
   - 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.

2.4.3.9 Transmission

1. A maximum of six gear ratios is permitted.

   a) In the MotoGP class the total number of gearbox ratios (pairs of gears) permitted is 24, plus 4 **different overall** ratios for the primary drive, for each season.

   b) Teams will be required to declare all the gearbox ratios chosen for each gearbox speed before the first race of the season, and only these declared ratios may be used during the entire season. Any ratios not declared before the first race of the season may not be used during that season.

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.

2.4.3.10 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 frame, the front forks, the handle-bars, the swinging arm spindles, and the wheel spindles is forbidden. For wheel spindles, the use of light alloys is also forbidden.

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. 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/cm3).

6. The use of MMC (Metal Matrix Composite) and FRM (Fibre Reinforced Metal) materials is forbidden.

7. In the MotoGP class, hollow structure connecting rods are not permitted. Oil galleries of less than 2 mm diameter in the connecting rod are permitted.

2.4.4 Chassis

2.4.4.1 Weights

1. The following are the minimum weights permitted:

MotoGP	up to 800cc	motorcycle	150 kg
	801 – 1000cc	motorcycle	**158** kg

For 2016 the minimum weight for 801 – 1000cc machines will be 157 kg.

The Grand Prix Commission will review minimum weights during 2015 to consider a possible further reduction of 2 kg for 2016.

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.

2.4.4.2 Safety and Construction criteria

Note: Please also refer to diagrams 1, 2 and 3 in the Appendix.

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 twist grips must close automatically when released.

3. Steering

   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.

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 for non-prototype engines in the MotoGP class, and as directed by the Technical Director.

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) Correct attachment of the transponder bracket consists of a minimum of tie-wraps, but preferably by screw or rivet. Velcro or adhesive alone will not be accepted, and any transponder retaining clip must also be secured by a tie-wrap.

    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. Where signals are required to be displayed on the motorcycle, the display device (eg. dashboard) must be compatible and fully functional for this purpose, as approved by the Technical Director. Refer to Table 7 in the Appendix for the current list of signals required to be displayed.

11. Onboard Cameras

Where the Organiser has required a team to carry onboard camera(s) under Art. 1.21.13, such cameras and associated equipment must be carried during all practice sessions and the race, or as requested by the Organiser.

Cameras and other equipment will be supplied to the designated Teams no later than 10h00 on the day preceding the first day of practice at an event.

Teams must give reasonable access and assistance to the company designated for the supply of the camera equipment to facilitate the mounting of the equipment.

All onboard camera equipment must be fitted to the machine following the mounting instructions and only in the location(s) specified by the Organiser. Such fitting details will be communicated to the manufacturers and teams before July of the previous season.

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 – 15 W (incandescent) 0.6 – 1.8 W (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.

2.4.4.3 Brakes

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

2. In the MotoGP class, carbon brake discs must be one **of the permitted** sizes for outside diameter**, that is:** 320 mm and **340 mm.**

   At certain circuits, for safety reasons, the use of 340 mm carbon brake discs is mandatory for the race. The circuit(s) currently listed for mandatory 340 mm brake disc use are:

   I. Motegi (Japan)

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. Al2O3, SiC, B4C, Ti5Si3, SiO2, Si3N4).

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. 2.4.3.8 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.

6. **In the MotoGP class the brake suppliers commit to sell to their customer teams a front brake "MotoGP Season Package" for a price of no more than 70,000 €uros per rider (excluding VAT, excluding freight).**

   The package is intended to cover the basic minimum dry weather front wheel braking needs for one rider for one MotoGP season, and will consist of (option A or B, at the choice of the team):

   <u>Option A, package price 70,000 €uros</u>

   - **3 left-hand + 3 right-hand calipers, (following the materials restrictions in clause d. below)**
   - **3 master cylinders**
   - **10 carbon discs ***
   - **28 carbon pads ***

   <u>Option B, package price 60,000 €uros</u> (available for the 2015 season only)

   - **No calipers are included, teams may purchase calipers without restrictions on materials (see paragraph d. below)**
   - **3 master cylinders**
   - **10 carbon discs ***
   - **28 carbon pads ***

   *** In the case of carbon discs where certain sizes are mandated by the regulations, at least one set of each mandated size plus sufficient brake pads for that size must be included.**

a) Each brake supplier must deliver to the Organiser a list of the items available in their package, with individual prices and identification notes.

- **Prices must comply with a "reasonable market value" standard, as determined by the Organiser.**
- **Identification notes must be as requested and approved by the Technical Director to enable him to identify permitted components (eg. drawings and/or a table of parts markings showing the main dimensions, weight and and features corresponding to each marked part). Such identification notes will be strictly confidential, for use of the Technical Director and not published.**
- **For the 2015 season only, the parts list may contain calipers which do not conform to the materials restrictions in paragraph d. below, which are available for purchase to teams choosing either package Option A or Option B.**
- **The deadline for submission of this information is 7 days after the conclusion of the third official MotoGP test of the season (ie. March 6, 2015).**

b) Different versions of the same part may be listed for the teams to choose from. All versions must be shown on the parts package list, including but not limited to the examples below:

- **different specification master cylinders**
- **different compound carbon disc material**
- **different disc carriers for mounting to various wheel/ motorcycle brands**

Note that some "fitting" items may be changed in shape and specification without the versions being noted separately in the parts package list. These items include:

- **different master cylinder brake levers, for rider preference**
- **different brake pad retaining devices, for different pad shapes**

c) Teams are permitted to purchase extra quantities than those defined in the package, but only items in the brake supplier's original list may be used on a MotoGP machine (eg. if two master cylinders are in the list, teams may purchase one or both in unlimited quantities, but may not use a third different specification that is not in the list).

d) The construction materials allowed for the main body of each component are:

- **Calipers, Master Cylinders, Disc Mounting Hubs – Al2024, Al7075, Al6082, Al2618, Al6061. (Specifically Al-Li material is forbidden).**
- **Brake Disc Rotors – Ferrous or Carbon (refer to Art. 2.4.4.3.4).**
- **Brake Pads for Carbon Discs – Carbon.**
- **Brake Pads for Ferrous Discs – no restriction.**

e) The parts list may not be updated during the season, other than with the express consent of the Technical Director (eg. to alleviate a safety problem).

f) Evolution and updates are permitted from one season to the next, with the following limitations:

i) Construction materials must comply with the Allowed Materials list (Art. 2.4.4.3.6. d, above).

ii) Individual component prices and the total package price must not increase for 3 years, after which time the suppliers may submit a new price list to the Organiser for approval.

2.4.4.4 Suspension and Dampers

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.

2.4.4.5 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, one per motorcycle with a minimum capacity of 200cc and a maximum capacity of 250cc.

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 homologation.

   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-live.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 must 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. **F**uel tank capacity**.**

   - The fuel tank capacity limit in the MotoGP Open category is a maximum of 24 litres.
   - For riders entered under the Factory Option (Art. 2.4.3.5.4) the fuel tank capacity limit is a maximum of 20 litres*

- * An exemption is granted for a Motorcycle Manufacturer with entries under the Factory Option who has not achieved a race win in dry conditions during the 2013 season, or a new Motorcycle Manufacturer entering the Championship for the first time since the 2013 season. Such Manufacturers will be entitled to a fuel tank maximum capacity of 24 litres for all of it's riders entered under the Factory Option. This concession remains valid until the start of the 2016 season, subject to the following conditions:

  - **should any rider or combination of riders entered by the same Manufacturer, participating under these conditions, accrue 3 concession points in dry conditions during the 2014 and/or 2015 seasons, then for all Factory Option riders of that Manufacturer the fuel tank capacity will be reduced to 22 litres maximum. This reduced concession will apply to all races immediately after the stated results are achieved and remain in place until the end of the 2015 season.**

- In defining fuel tank capacity all containers of the motorcycle capable of supplying fuel to the carburettors/injectors may be taken into account.

MotoGP

From the 2016 season the MotoGP fuel tank capacity limit will be a maximum of 22 litres.

6. 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.

2.4.4.7 Bodywork

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 beyond a line drawn vertically at the leading edge of the front tyre 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) 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. Wings may be fitted provided they are an integral part of the fairing or seat and do not exceed the width of the fairing or seat or the height of the handlebars. Any sharp edges must be rounded. Moving aerodynamic devices are prohibited.

   Note that from 2016, all edges of any wings fitted must have a minimum radius of 2.5mm. [GPC Valencia, 7.11.2015]

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 for MotoGP). **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 should 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.

2.4.4.8 Wheel Rims

1. Permitted wheel rim sizes are as follows:

	Front	Rear
MotoGP	4.00” max. width 16.5” diameter only	6.25” max. width 16.5” diameter only

   In the MotoGP class, each manufacturer is restricted to two different widths of front wheel rim, and one width of rear wheel rim, within the maximum widths noted above. All MotoGP wheel rims must be 16.5” diameter.

   Each MotoGP manufacturer must notify the Technical Director of their selected wheel sizes no later than the close of technical control at the first race of each season.

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.

   Note that regulations concerning the design and durability of wheels have been agreed by the Grand Prix Commission and wheel suppliers for application from **2016 for the MotoGP** class. The regulations will include:

   - Wheels in all classes are required to be homologated to conform to a new FIM Standard for Grand Prix Racing Wheels (refer to the FIM website http://www.fim-live.com/en/library/).

- For homologation each wheel design must pass the construction and durability tests described in the FIM Standard, and be certified as such by the wheel manufacturer.
- Front and Rear wheel diameter will be 17” only, wheel width t.b.a.

2.4.4.9 Tyre restrictions

1. In all classes, only tyres from the official appointed tyre supplier for each class may be used in a Grand Prix event, including official tests.

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

   The tyre specifications available at each event will be determined by the tyre supplier. 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.

   The Official Tyre Supplier will remain at all times the owner of all tyres supplied to the teams. The teams are required to return all tyres to the Official Supplier at the end of each event or test. [GPC Valencia, 7.11.2015]

   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.

2. During the two days prior to 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.

   The Technical Director and staff will allocate the tyres available for the exclusive use of each entered rider (as described in Article 2.4.4.9.3). The allocation of individual tyres will be made on a random basis with no involvement of any representative from the tyre supplier, teams or riders.

This allocation should be completed by 14.00 hrs and no further allocation of tyres is allowed after 17.00 hrs on the day prior to the start of official practice (except under Arts. 2.4.4.9.3 front tyre specification choice, 2.4.4.9.7 or 2.4.4.9.8).

In the case of a rider change after the final tyre allocation has been made, the replacement rider must use only the tyres allocated to the original rider.

3. For Grand Prix race events, each rider will be restricted in the quantity and specification of tyres that they may use at a single race event as follows:

A. MotoGP Class

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 specification of tyres may be different for each of the class designations, ie. MotoGP Open category and Factory Option*****.

*** An exemption is granted for a Motorcycle Manufacturer with entries under the Factory Option who has not achieved a race win in dry conditions during the 2013 season, or a new Motorcycle Manufacturer entering the Championship for the first time since the 2013 season. Such Manufacturers will be allocated the same tyre specifications as the Open category for all of their riders entered under the Factory Option. This concession remains valid until the start of the 2016 season, under the following conditions:**

- **should any rider or combination of riders entered by the same Manufacturer, participating under these conditions, accumulate 3 race wins in dry conditions during the 2014 and/or 2015 seasons, then for all riders of that Manufacturer the tyre allocation will revert to the Factory Option specification. This revised tyre specification will apply to all races immediately after the stated results are achieved and remain in place until the end of the 2015 season.**

The base allocation, subject to mutually agreed changes, is as follows:

During all practice sessions, warm up and the race a maximum of **21** slick tyres, specifically:

Front slick tyres:

10 in total, comprised of:

up to a maximum of 6 of specification A (hard)
up to a maximum of 6 of specification B (soft)
up to a maximum of 3 of the Option specification*

[* the Option specification will be determined by the tyre supplier according to expected track conditions, it may be harder or softer than the standard specifications. The Option tyre will not be supplied at Special Case circuits as advised by the tyre supplier, in which case the total number of front tyres will be 9]

The rider's **final** selection of front tyre specification must be informed to the tyre supplier no later than 2 hours after the end of the first day's practice. The Technical Director will notify teams in advance of any change to this deadline, due to changes in the practice schedule.

If no specification selection is received by this time the allocation **will be determined by the tyre supplier, respecting the maximum quantities above.**

This allocation will be final and no changes are permitted after this time. In the case of a rider being replaced after this tyre selection deadline, the replacement rider must use only the tyres allocated to the original rider.

Rear slick tyres:

11 in total, comprised of:

up to a maximum of 5 of specification A (hard)
up to a maximum of 7 of specification B (soft)

The rider's **final** selection of rear tyre specification must be informed to the tyre supplier no later than 2 hours after the end of the first day's practice. The Technical Director will notify teams in advance of any change to this deadline, due to changes in the practice schedule.

If no specification selection is received by this time the allocation of the **11** tyre**s** will automatically be**:**

4 of specification A, and 7 of specification B.

This allocation will be final and no changes are permitted after this time**.**

In the case of a rider being replaced after this tyre selection deadline, the replacement rider must use only the tyres allocated to the original rider.

Wet tyres, MotoGP class

For practice sessions, warm up and the race a standard allocation of 10 wet tyres, specifically:

Front wet tyres: 5 of the standard specification

Rear wet tyres: 5 of the standard specification

Due to circuit conditions the tyre supplier, in consultation with the Organisers and Technical Director, may agree to provide an alternative specification of wet tyre.-

In this case, each rider will have the option to replace up to 2 of the standard specification front and/or rear wet tyres (maximum 2 front and 2 rear) with the alternative specification.

The tyre supplier may allocate one extra set (1 front + 1 rear) of wet tyres to every rider after qualifying, for use as race back-up.

In the case that all free practice sessions and at least one qualifying session (excluding warm-up) are declared wet by the Race Director, one more set of wet tyres will be allocated to every rider in addition to the race backup extra set.

A wet tyre is defined as a tyre which has a land to sea ratio of at least 20% overall, and a minimum ratio of 7% in each third of the section profile.

The tyre may be moulded or hand cut, but each groove must have a minimum depth of three millimetres over 90% of its length. For allocation purposes any tyre with a land to sea ratio of less than 20% will be deemed a slick tyre and therefore must be part of the rider’s slick tyre allocation. In case of dispute the decision of the Technical Director will be final.

4. a) Riders may use only the tyres allocated for his/her exclusive use (as described in Article 2.4.4.9.3).

   b) Tyres will be individually identified and may not be exchanged between riders, including between team-mates, and may not be exchanged by the tyre supplier after allocation, except with the permission of the Technical Director (for example, under Article 2.4.4.9.8).

   c) 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. Each allocated tyre must be marked with its specification and carry an official identification label with a unique serial number. In the event of damage to or loss of the official label, the tyre company must be able to satisfy the Technical Director as to the tyre's specification. Tyres may be checked for compliance at any time, before or after use.

6. In the case of an interrupted race, a rider must use tyres from his allocation of marked tyres for the restarted race.

7. In the unlikely event of a tyre being accidentally damaged before it is used (for example during the fitting process) 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.

c) Tyres that are deemed to have covered more than 2/3 of race distance will not be considered for replacement. The determination of distance covered will be the sole decision of the Technical Director in consultation with the tyre supplier, and the team may be required to submit information such as lap charts and logger data to support a claim.

In determining whether a replacement will be allowed the decision of the Technical Director will be final.

d) If a replacement tyre is granted, it must be of the same specification as the damaged tyre and selected at random by the Technical Director and/or his staff.

8. 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.

A re-allocation of suitable tyres may be made under the supervision of the Technical Director. Such allocated tyres will be the same specification(s) and quantities for all riders, the quantity being determined by the tyre supplier in consultation with the Technical Director.

9. Tests, MotoGP Class:

A. For official Post-Race tests of 1 day duration, each rider will be restricted in the quantity and specification of tyres that they may use at a single test event as follows:

During all practice sessions, a maximum of 8 slick tyres, specifically:

Front slick tyres:

4 front tyres chosen from the two specifications, with a maximum of 3 tyres of any one specification (ie. 3 + 1, or 2 + 2, or 1 + 3).

Rear slick tyres:

4 rear tyres chosen from the two specifications, with a maximum of 3 tyres of any one specification (ie. 3 + 1, or 2 + 2, or 1 + 3).

During all practice sessions, a maximum of 4 wet tyres, specifically:

Front wet tyres: 2 of the standard specification

Rear wet tyres: 2 of the standard specification

In addition each rider may use 1 set of tyres (1 front + 1 rear) retained from their allocation for the preceding event. These tyres may be new or used (NB. used tyres must still be mounted on wheels from the preceding event), and the team must inform the tyre supplier which set of tyres (1 front + 1 rear), if any, they wish to retain for the test within 2 hours of the preceding race finish.

B. For official Winter or post-race tests of 2 days (or more) duration, each rider will be restricted in the quantity and specification of tyres that they may use at a single test event as follows:

During all practice sessions on Day 1, a maximum of 8 slick tyres, specifically:

Front slick tyres:

4 front tyres chosen from the two specifications, with a maximum of 3 tyres of any one specification (ie. 3 + 1, or 2 + 2, or 1 + 3).

Rear slick tyres:

4 rear tyres chosen from the two specifications, with a maximum of 3 tyres of any one specification (ie. 3 + 1, or 2 + 2, or 1 + 3).

During all practice sessions on each additional day, a maximum of 6 slick tyres, specifically:

Front slick tyres:

3 tyres out of the 2 specifications “A” and “B” = 3 in total

Rear slick tyres:

3 tyres out of the 2 specifications “A” and “B” = 3 in total

During all practice sessions over the 2 (or more) days of the test, a maximum of 4 wet tyres per day, up to a maximum total of 8 wet tyres, specifically:

Front wet tyres: 4 of the standard specification, (maximum of 2 per day)

Rear wet tyres: 4 of the standard specification, (maximum of 2 per day)

C. At any official Post-race or Winter test, the tyre supplier may choose to allocate extra tyre sets with a different specification. Such extra allocation will be determined solely by the tyre supplier.

The same quantity of identical specification tyres will be allocated to at least all permanent MotoGP class riders contracted to factory teams at the test.

When a new specification tyre is to be introduced, the tyre supplier should inform all teams at least two months in advance of the proposed test date for the new specification.

2.4.4.10 Numbers and Backgrounds

1. The racing number must be affixed to the front of the motorcycle fairing in a central position. Rear or side numbers are optional.
2. Numbers should be a minimum height of 140 mm.
3. Numbers must be easily legible, in a clear simple font and contrast strongly with the background colour.
4. Backgrounds must be of one single colour over an area large enough to provide a minimum clear area of 25mm around the numbers.
6. In case of a dispute concerning the legibility of numbers, the decision of the Technical Director will be final.

2.4.5 General

2.4.5.1 Fuel and Oil

1. All motorcycles must be fuelled with unleaded petrol, which must comply with the FIM Grand Prix specification for each racing class.

2. Unleaded petrol will comply with the FIM Grand Prix specification if:

(a) It has the following characteristics:

Property	Units	Min.	Max.	Test Method
RON		95.0	102.0	ISO 5164
MON		85.0	90.0	ISO 5163
Oxygen	% (m/m)		2.7	ISO 22854
Benzene	% (v/v)		1.0	ISO 22854
Vapour Pressure (DVPE)	kPa		90	EN 13016-1
Lead	mg/L		5.0	EN 237
Density at 15 °C	kg/m3	720.0	775.0	ASTM D 4052
Oxidation Stability	minutes	360		ASTM D 525
Existent gum	mg/100 mL		5.0	EN ISO 6246
Sulphur	mg/kg		10	ASTM D 5453
Nitrogen	% (m/m)		0.2	ASTM D 4629
Copper Corrosion	Rating		Class 1	ISO 2160
Distillation:				
At 70 °C	% (v/v)	22.0	50.0	ISO 3405
At 100 °C	% (v/v)	46.0	71.0	ISO 3405
At 150 °C	% (v/v)	75.0		ISO 3405
Final Boiling Point	°C		210.0	ISO 3405
Residue	% (v/v)		2.0	ISO 3405
Olefins(*)	% (v/v)		18.0	ISO 22854
Aromatics(*)	% (v/v)		35.0	ISO 22854
Total di-olefins	% m/m		1.0	GCMS/HPLC GCMS/HPLC
Appearance		clear and bright		visual inspection

All test methods include a precision statement. In cases of dispute, the procedures for resolving the dispute and interpretation of the results based on test method precision, described in ISO 4259, shall be used.

(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.

Compliance with the compositional regulation is calculated on the following basis:

A = 100 – B –C

where:

A is the total concentration (in % m/m) of individual hydrocarbon components present at concentrations less than 5 % m/m,

B is the total concentration (in % m/m) of oxygenates present in the fuel, and

C is the total concentration (in % m/m) of individual hydrocarbon components present at concentrations greater than 5% m/m.

The test method will be gas chromatography.

(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) Only the following oxygenates will be permitted:

Methanol, Ethanol, Iso-propyl alcohol, Iso-butyl alcohol, Methyl tertiary butyl ether, Ethyl tertiary butyl ether, Tertiary amyl methyl ether, Di-isopropyl ether, n-Propyl alcohol, Tertiary butyl alcohol, n-Butyl alcohol, Secondary butyl alcohol.

(e) Manganese (<1 mg/L), lead (<5 mg/L), iron (<5 mg/L) and nickel (<5 mg/L) additives are not permitted above these limits.

4. Implementation of the fuel regulation

   In the MotoGP class when a rider taking part in a meeting is under contract or agreement for the exclusive use of a certain brand of petrol or oil, the Organisers must give free access to the circuit for that fuel or oil.

   Any final dispute will be settled in accordance with the FIM Grand Prix

   Disciplinary and Arbitration Code.

5. Fuel and Oil Approval

   1. All fuel in use in the Championship must be approved prior to the race in which the fuel is to be used. Fuel companies supplying petrol to participating teams must submit ten litres (2 x 5 L) to the laboratory appointed by the FIM/Dorna for analysis in accordance with the specification. Providing the petrol is within the specification, a certificate containing a test report number will be issued. The test report number must be given to the appropriate teams before they take part in a race.

   2. During Thursday's technical control, each team will declare the certificate test report numbers corresponding to the petrol to be used. This information will be entered in the Technical Control Book of each motorcycle at every Grand Prix.

      Therefore, the fuel which is to be used must be approved by the Thursday afternoon before the race in which the fuel is to be used.

   3. When a fuel sample is requested at any Grand Prix Circuit, either during practice, warm up or following the race, the certificate test report numbers corresponding to the petrol used must be declared to the Grand Prix Technical Director by the team. Failure to provide the correct number **may** result in a **penalty**.

   4. Each fuel and/or oil Company will be responsible for payment to the laboratory for these batch analyses costs and establishment of the basic fingerprints.

6. Fuel and Oil Sampling and Testing

   1. The Grand Prix Technical Director will appoint a senior Technical Scrutineer to take responsibility for the administration and supervision of the fuel sampling procedure.

2. Motorcycles selected for fuel controls will usually be amongst the first three finishers, and will be directed to the “parc fermé” for technical controls.

3. 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”.

4. 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.

5. Only new bottles will be used for the fuel samples and only new materials will be used to transfer the fuel.

6. 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.

7. 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 petrol using gas chromatography. 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 of the GC curve 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 FIM Grand Prix specification as described in Article 2.4.5.1.2

   Costs for the analyses of sample “A” will be paid by FIM/Dorna.

8. 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.

9. Both samples will be transported by an authorised courier.

10. The laboratory must deliver the results of the fuel sample analyses to the Grand Prix Technical Director, with a copy to the FIM, as soon as possible after receipt of the samples.

11. In the case of non-conformity, the Technical Director must notify, as soon as practical after receipt of the results, the FIM, the Grand Prix Race Direction 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 FIM and the Technical Director if counter-expertise is required (or not required) for sample “B”.

    The Race Direction will take a decision at the Grand Prix 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 Grand Prix event at which the Race Direction decision is taken.

    If there is no more Grand Prix 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 Race Direction will be heard by the FIM Stewards appointed by the FIM for this specific task.

12. 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.

13. Failure of the sample to comply to approved petrol and/or the addition of octane and power boosters, as described in Article 2.4.5.1.6.7, 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.

7. **Fuel Temperature**

For the MotoGP race, no fuel on the motorcycle may be more than fifteen degrees C (15°C) below ambient temperature. The use of any device on the motorcycle to artificially decrease the temperature of the fuel below ambient temperature is forbidden.

For the purposes of this regulation an Official Ambient Temperature will be declared and displayed on the timekeeping monitors one hour before the start of the MotoGP race.

Each team will be assigned a technical scrutineer one hour before the start of the race. The scrutineer is authorized to test all fuel before it is transferred to the motorcycle fuel tank.

Before filling, all of the fuel storage and transfer containers and the motorcycle fuel tanks may not be more than 15°C below the official ambient temperature.

Only the officially-supplied approved containers may be used to store fuel immediately prior to being transferred to the motorcycle. These containers and any fuel they contain must always be available for the scrutineer to test during the hour preceding the race.

- Containers must be approved and marked by the Technical Director at Technical Control before the first race of the season.
- Each team is allowed a maximum of two official approved fuel containers per rider.
- Other than separate external insulation, no devices to control the container temperature are permitted. Specifically no device capable of lowering the fuel temperature may be used.

When it has been confirmed that the fuel is within the allowed temperature range, the team may transfer the fuel to the motorcycle fuel tank. Only fuel from the approved and temperature-checked container may be used in the motorcycle, including when the team wishes to add, change or top-up the fuel.

2.4.5.2 Protective Clothing and Helmets

1. Riders must wear a complete leather suit with additional leather padding or other protection on the principal contact points, knees, elbows, shoulders, hips etc.

2. Linings or undergarments must not be made of a synthetic material which might melt and cause damage to the riders' skin.
3. Riders must also wear leather gloves and boots, which with the suit provides complete coverage from the neck down.
4. Leather substitute materials may be used, providing they have been checked by the Chief Technical Scrutineer.
5. Use of a back protector is highly recommended.
6. Riders must wear a helmet which is in good condition, provides a good fit and is properly fastened.
7. Helmets must be of the full face type and conform to one of the recognised international standards:

   - Europe ECE 22-05 "P"
   - Japan JIS T 8133: 2007 (valid until 31.12.2015)
     JIS (new logo and label) valid from 1.1.2013
   - USA SNELL M 2010 **(valid until 31.12.2019)**
     SNELL M 2015

   Refer to the Appendix, Table 6: International Helmets Standards for details.
8. Visors must be made of a shatterproof material.
9. Disposable "tear-offs" are permitted.
10. Any question concerning the suitability or condition of the riders clothing and/or helmet shall be decided by the Technical Director, who may, if he so wishes, consult with the manufacturers of the product before making a final decision.

2.4.5.3 Procedures for Technical Control

1. At each circuit an area must be designated as the Technical Checking Area. In this area, under the control of the Chief Technical Scrutineer and the supervision of the Technical Director, suitable equipment will be installed to conduct the various tests viz:

   i) Equipment for measuring the noise of the motorcycle.

   ii) Weighing scales with check weights for calibration purposes.

   iii) Instruments for measuring engine capacity.

iv) Instruments and gauges as necessary for measuring other dimensions and criteria specified in the Technical Regulations.

2. The technical control procedure will be carried out in accordance with the schedule set out in the Regulations. The technical scrutineers must be available throughout the event to check motorcycles and equipment as required by the Technical Director.

3. Presentation of a machine will be deemed as an implicit statement of conformity with the technical regulations. Responsibility for the preparation of the machine to comply with all technical and safety regulations rests with the team.

4. A rider's presence at the initial technical control is not mandatory, except in the case of the Moto2 and Moto3 classes when the rider must be present for a weight check together with his helmet and all protective clothing.

5. Motorcycles will be inspected under the name of the team and at the initial technical control each motorcycle will be registered by the technical scrutineers who will prepare a technical control card to record technical specifications, check results and the riders in that team entitled to use the motorcycle.

6. At the initial technical control the technical scrutineers should inspect the motorcycle to record technical details including weight (plus rider weight in the Moto2 and Moto3 classes), noise level and may also check the motorcycle for technical compliance with other aspects of the Regulations, as requested by the Technical Director.

8. At each event, at the conclusion of technical control procedures prior to the first practice, the technical scrutineers will place a small sticker on the motorcycle indicating that it has been registered for use by the team's rider(s) for that race and passed the technical control procedures.

9. The Chief Technical Scrutineer will prepare a report on the results of technical control which will be submitted to the Event Management Committee via the Technical Director.

10. The technical scrutineers should re-inspect any machine that has been involved in an accident, and if necessary to issue a new technical control sticker for a rebuilt machine. This would normally be carried out at the pit of the rider concerned. The team has sole responsibility for any repairs carried out, and to determine when the machine is fit for further use.

11. The technical scrutineers must be available, based on instructions from the Technical Director, to re-inspect any motorcycle for technical compliance during the meeting or after the race and to supervise inspection of a motorcycle following a protest on a technical matter.

12. At the end of the race, the Chief Technical Scrutineer will ensure that the motorcycles placed in the first three positions, plus any other motorcycles designated by the Technical Director, are placed in the Check Area for a period of 60 minutes pending any protest.

    The motorcycles should be checked for compliance with the noise and weight regulations, and any other technical requirement, under the control of and as requested by the Technical Director

13. The Technical Director may require a team to provide such parts or samples as he may deem necessary.

2.4.5.4 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 levels at all times are:

   MotoGP: 130 dB/A

   For convenience, the test may be conducted at a fixed RPM.

	1 cylinder	2 cylinders	3 cylinders	4 cylinders
MotoGP	5,500 rpm	5’500 rpm	5’500 rpm	5’500 rpm

2.5 Moto2 Class Technical Regulations

2.5.3 Engines

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 <u>Moto2 Engine Supply</u>

1. Only engines from the official Supplier are allowed to be used. The term official Supplier shall refer to the engine producer and/or to the company nominated to perform such functions as engine assembling, rebuilding, maintenance, and logistics.

2. Sealed engines will be provided to each team, allocated on a random basis by the Technical Director and staff.

3. Security seals may not be removed or broken and the team may not open the engine, except to remove unsealed covers for maintenance as described in Art. 2.5.3.2.4) specifically the cam cover, cylinder head, cylinders, crankcase, may not be opened or removed.

4. Teams may only perform maintenance of parts specifically authorised by the Championship Organisers which does not involve removal of security seals. This includes change of oil and external items as detailed in the following articles including cooling, fuel and electrical systems, and clutch parts including plates, hubs, control mechanisms.

5. All other maintenance and repair, specifically that involving removal of security seals will be carried out by the official Supplier. Regular maintenance, rebuilding and replacement of engines will be at the sole discretion of the Championship Organisers, and on a schedule determined by them.

6. Engines returned for maintenance, repair or replacement must be in the original condition as delivered, that is with the original fittings in place as required by the Championship Organiser, which may include:

   - covers, cooling system including hoses and connectors, electrical system including wiring and connectors, clutch.

7. In the case of engine breakdown or damage, another engine may be allocated by the Technical Director. Such allocation can not be made during a Moto2 practice session or within 30 minutes of the pit lane being opened for the race sighting lap.

<u>Engine Definition, Specification and Modification</u>

8) i) Use of the complete engine is mandatory, and it may not bemodified in any way except as specifically described in these regulations, or as directed by the Technical Director. 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 official Supplier in consultation with the Organisers. The engine design and specification may be changed at any time with the agreement of both the official Supplier and the series Organiser. New technologies (for example; materials, cylinder head and valve design, valve operating mechanisms, alternative fuels, etc.) are encouraged provided they meet the Series' principle of cost reduction and long-term cost control, and are agreed by the official Supplier and series Organiser.

iii) The official Supplier may change the specification of individual parts from time to time, as is normal to improve reliability and function.

iv) All engines supplied to teams must be equal in specification and the engine performance, as measured by the official Supplier under their standard dynamometer conditions, must be within the tolerance range agreed by the Organiser and the official Supplier.

v) A team may request a replacement engine on the grounds of substandard performance:

a) If the Technical Director is satisfied that there is clear evidence of an engine problem causing substandard performance a replacement engine may be issued under Art. 2.5.3.2.7 with the approval of Race Direction.

b) If the Technical Director determines that there is no clear evidence of an engine problem, the team may still request a replacement engine.

Such request must be made in writing to the Technical Director accompanied by a deposit of 7,500 **€uros** (seven thousand five hundred Euros) per engine paid to IRTA.

The engine may be replaced with the approval of Race Direction, and the original engine will be returned to the official Supplier to be tested under standard conditions by the official Supplier and the dynamometer report sent to the Technical Director.

If the engine is deemed to be within specified performance parameters and fit for use, the same engine may be returned to the team at a subsequent race and the team's deposit will be forfeited.

If the engine is deemed to be outside of specified performance parameters and not fit for use, the deposit will be returned to the team in full.

In the case where a team or rider forfeits a deposit for an unfounded engine change, each subsequent claim during the season by the same team and rider (including replacement riders) will attract an additional deposit of 2,500 **€uros** (two thousand five hundred Euros).

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 official 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 primary & secondary, fuel delivery lines hoses and breathers.

b) Electrical system including generator, ignition coils, ECU (engine electronic control unit).

c) Lubrication system including oil filter, oil cooler, oil pressure switch (or oil pressure sensor as approved by the Technical Director).

9. To ensure reliability and performance, the official Supplier does not recommend 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.

10. 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) Water pump

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

11. Design and construction of the cooling system is free, provided it complies with Art. 2.5.3.2.9, Art. 2.5.3.2.10, and Art. 2.5.3.2.15 ensuring that the engine meets the operating parameters specified by the official Supplier (refer to Table 2 in the Appendix).

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

Engine Use

13. The engine may be used only at official Moto2 events as defined by the Championship Organisers. Moto2 events include Official Tests and Grand Prix race events.

14. The Championship Organisers may require that engines are returned at the completion of certain events and/or maintenance period (Art. 2.5.3.2.5). This is at the sole discretion of the Championship Organisers, and Teams must comply with such requests.

15. The engine must be used at all times respecting the range of operating parameters provided by the official Supplier, and avoiding deliberate misuse. Refer to Table 2 in the Appendix.

2.5.3.5 Electronics

2. Tyre temperature/pressure sensors are permitted in all classes.

Moto2 Ignition and Electronics

11. Only the electronic ignition/fuel injection control units (ECU) supplied by the official Supplier are allowed.

    This ECU must remain unmodified in hardware and software as delivered by the official Supplier, with the exception of the normal tuning adjustments allowed only by the standard software 'Setting Tool' supplied as part of the Moto2 Kit. **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.**

12. The ECU is defined as part of the engine (refer to Art. 2.5.3.2.8.vi) b) ECU units may be distributed to teams at official Moto2 events, and may be required to be returned during or after the event for checking and/or re-distribution.

13. 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.

14. Design and construction of the wiring harness is free to accommodate the needs of different machine designs, provided it respects the official Supplier's wiring diagram. Only the standard ECU, Datalogger and junction units may be connected to the harness, and connection of the components listed in Art. 2.5.3.2.8 and Art. 2.5.3.2.10 is mandatory.

Datalogger

15. Only the standard Moto2 Datalogger system (including hardware, sensors and firmware) approved by the Championship Organiser is allowed to be used at official Moto2 race and test events.

    Data download and analysis software **on external computers** is not controlled.

16. The Technical Director may inspect and access the datalogger system at any time, including the reading and downloading of data. Team data, with the exception of engine performance data, will be treated as confidential. The Technical Director may require the team to change the datalogger for another identical standard one at any time.

17. The Moto2 Datalogger will be supplied with a standard sensor package. Firmware and sensors must be to the latest specification as notified by the official Datalogger supplier, and approved by the Technical Director.

    There are additional logger channels available for approved optional sensors. No other sensors are permitted on the machine at official Moto2 events, and the standard sensors may be substituted with an alternative only with the express approval of the Technical Director. Refer to Table 1 in the Appendix.

    Note that following Art. 2.5.4.9.1) it is mandatory to log rear slick tyre pressure.

2.5.3.6 Fuel System

Moto2 class fuel system

6. Use of the fuel system (as described in Art. 2.5.3.2.8.vi) a) from the official Supplier is mandatory, and it must remain standard, as delivered by the official 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.

7. Fuel Pump: The fuel tank gauge assembly (i.e. float, arm and support bracket) of the standard fuel pump may be removed.

8. 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.

9. 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.

10 Airbox: Only the standard airbox supplied by the official Supplier (including air filter and secondary injectors) may be used. No modifications, alterations or additions to this airbox are allowed, except as described in Art. 2.5.3.6.11 below).

11. To ensure correct performance the official Supplier does not

    recommend any change to the airbox. However at the risk of the team, the following changes are allowed:

    a) The intake ducts, ahead of the air filter, may be changed to suit individual chassis designs.

    b) The resonance chambers and the top of the airbox (airbox lid) may be replaced or modified, provided that the total airbox volume, from the filter back, is no larger than the original. Refer to Diagram 4 in the Appendix.

    If such a modified cover is fitted, the original air temperature sensor must be fitted on this cover in a position equivalent to the original position, and may not be horizontally closer to the secondary injectors than the original position. Refer to Diagram 5 in the Appendix.

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).

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:

6. The design and construction of the Moto2 exhaust system is free provided it conforms to the FIM Grand Prix regulations, and respects the engine Supplier's specified layout (i.e. 4 into 2 into 1). There are recommended dimensions from the engine Supplier. Refer to Diagram 6 in the Appendix.

7. The Linear Air-Fuel sensor (LAF, or Lambda) will be located 120 mm after the final 2 into 1 junction of the exhaust, with a tolerance of 20 mm (minimum 100 mm, maximum 140 mm after the 2 into 1 junction). Refer to Diagram 6 in the Appendix.

2.5.3.8 Control Systems

1. The use of hydraulic and/or pneumatic pressurized powered systems is not allowed, with the exception of cylinder inlet/exhaust valve springs in the MotoGP class. 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.

   Pneumatic engine valve closing systems are allowed in the MotoGP class only.

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.
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.

Moto2 class Clutch and Transmission

6. A racing slipper clutch (back-torque-limiter) and clutch cover will be supplied to each rider. Only this clutch and cover may be used, without modification, and it's use is mandatory at all official Moto2 events.
7. It is the team's responsibility to fit, adjust and maintain all parts of the clutch. Engines returned for maintenance, repair or replacement will have the racing clutch removed, and the team retains their own clutch for use with subsequent engines.
8. Quick-Shifter gearchange systems must be approved by the Technical Director, to ensure that they comply with required specifications (as described in the Moto2 Constructor Information notes available from the Technical Director).

Note that for 2016 the quick-shifter must comply with the following specifications: [GPC Motegi 10.10.2015]

- **The only permitted electrical connector is a standard Deutsch AS 6 07 – 35 PB connector, respecting the following pin layout:**
  1. **VEXT (supply for shifter and coils direct from the bike)**
  2. **Ground**
  3. **Load Signal output**
  4. **RPM sprocket**
  5. **RPM (from either ECU or crankshaft sensor)**
  6. **V_coils (power supply going to ignition coils)**

- **All of the signals must be connected directly, unmodified and uninterrupted, including standard supply voltages generated to the coils.**

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 frame, the front forks, the handle-bars, the swinging arm spindles, and the wheel spindles is forbidden. For wheel spindles, the use of light alloys is also forbidden.

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. 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/cm3).

6. 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: 215 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.

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

Note: Please also refer to diagrams 1, 2 and 3 in the Appendix.

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.

3. Steering

   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.

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) Correct attachment of the transponder bracket consists of a minimum of tie-wraps, but preferably by screw or rivet. Velcro or adhesive alone will not be accepted, and any transponder retaining clip must also be secured by a tie-wrap.

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. Where signals are required to be displayed on the motorcycle, the display device (eg. dashboard) must be compatible and fully functional for this purpose, as approved by the Technical Director. Refer to Table 7 in the Appendix for the current list of signals required to be displayed.

11. Onboard Cameras

Where the Organiser has required a team to carry onboard camera(s) under Art. 1.21.13, such cameras and associated equipment must be carried during all practice sessions and the race, or as requested by the Organiser.

Cameras and other equipment will be supplied to the designated Teams no later than 10h00 on the day preceding the first day of practice at an event.

Teams must give reasonable access and assistance to the company designated for the supply of the camera equipment to facilitate the mounting of the equipment.

Onboard camera equipment must be fitted to the machine following the mounting instructions and only in the location(s) specified by the Organiser. Such fitting details will be communicated to the manufacturers and teams before July of the previous season.

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 – 15 W (incandescent) , 0.6 – 1.8 W (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.

2.5.4.3 Brakes

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

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

4. 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. Al2O3, SiC, B4C, Ti5Si3, SiO2, Si3N4).

5. 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.

6. 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.

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, 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.

   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 homologation.

   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-live.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.

6. 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

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 beyond a line drawn vertically at the leading edge of the front tyre 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. 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. Wings may be fitted provided they are an integral part of the fairing or seat and do not exceed the width of the fairing or seat or the height of the handlebars. Any sharp edges must be rounded. Moving aerodynamic devices are prohibited.

   Note that from 2016, all edges of any wings fitted must have a minimum radius of 2.5 mm. [GPC Valencia, 7.11.2015]

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 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 should incorporate a maximum of two holes of 25mm. 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” only	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 standards published in the document "FIM Wheels Standard Grand Prix 2015", and be certified by the wheel manufacturer.**

   (refer to http://www.fim-live.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 standards document.
- Every wheel of this design or model must be identified with the model code and a unique serial number, by a permanent marking. (note that from 2016 these identification markings must be visible with the tyre fitted).
- Each individual design or model that has passed the standards tests will be certified by an official document issued by the wheel manufacturer stating that the wheel conforms to the homologation standard: FIM Wheels Standard Grand Prix 2015.
- A copy of this compliance certificate must be sent to the MotoGP Technical Director (Danny Aldridge danny@irta.org.uk) and to the FIM International Technical Commission (CTI) co-ordinator (Charles Hennekam charles.hennekam@fim.ch). A copy of this certificate must also be provided to customers together with homologated 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 a Grand Prix event, including official tests.

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

   The tyre specifications available at each event will be determined by the tyre supplier. 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.

To ensure compliance, the use of tyre pressure sensors on all rear wheels used for slick tyres is mandatory. Tyre pressure must be logged and the Technical Director and his staff may request tyre pressure data from the team at any time. Refer also to Art. 2.5.3.5.17).

2. During the two days prior to 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.

   The Technical Director and staff will allocate the tyres available for the exclusive use of each entered rider (as described in Article 2.5.4.9.3). The allocation of individual tyres will be made on a random basis with no involvement of any representative from the tyre supplier, teams or riders.

   This allocation should be completed by 14.00 hrs and no further allocation of tyres is allowed after 17.00 hrs on the day prior to the start of official practice (except under Arts. 2.5.4.9.3 front tyre specification choice, 2.5.4.9.7 or 2.5.4.9.8).

   In the case of a rider change after the final tyre allocation has been made, the replacement rider must use only the tyres allocated to the original rider.

3. For Grand Prix race events, each rider will be restricted in the quantity and specification of tyres that they may use at a single race event as follows:

   B. Moto2 Class

   During all practice sessions, warm up and the race a maximum of 17 slick tyres, specifically:

   Front slick tyres:

   8 front tyres, comprised of the two standard specifications only.

   Rear slick tyres:

   9 rear tyres, comprised of the two standard specifications only.

   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.

Wet tyre quantities are not restricted, however only the current specification of wet tyres from the Official tyre supplier may be used. The tyre supplier undertakes to have available 3 sets of wet tyres (4 sets in case every practice session is declared wet) per rider. Tyres of the correct specification retained by the team from previous events may be used.

4. a) Riders may use only the tyres allocated for his/her exclusive use (as described in Article 2.5.4.9.3).

   b) Tyres will be individually identified and may not be exchanged between riders, including between team-mates, and may not be exchanged by the tyre supplier after allocation, except with the permission of the Technical Director (for example, under Article 2.5.4.9.8).

   c) 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. Each allocated tyre must be marked with its specification and carry an official identification label with a unique serial number. In the event of damage to or loss of the official label, the tyre company must be able to satisfy the Technical Director as to the tyre's specification. Tyres may be checked for compliance at any time, before or after use.

6. In the case of an interrupted race, a rider must use tyres from his allocation of marked tyres for the restarted race.

7. In the unlikely event of a tyre being accidentally damaged before it is used (for example during the fitting process) 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.

c) Tyres that are deemed to have covered more than 2/3 of race distance will not be considered for replacement. The determination of distance covered will be the sole decision of the Technical Director in consultation with the tyre supplier, and the team may be required to submit information such as lap charts and logger data to support a claim.

In determining whether a replacement will be allowed the decision of the Technical Director will be final.

d) If a replacement tyre is granted, it must be of the same specification as the damaged tyre and selected at random by the Technical Director and/or his staff.

8. 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.

A re-allocation of suitable tyres may be made under the supervision of the Technical Director. Such allocated tyres will be the same specification(s) and quantities for all riders, the quantity being determined by the tyre supplier in consultation with the Technical Director.

9. <u>Tests, Moto2 Class:</u>

D. For all winter and post-race tests, each rider will be restricted in the quantity and specification of tyres they may use at a single test. The tyre supplier will determine the number of specifications and quantities it will bring to each test. Every rider present will receive the same allocation of standard tyre specifications and quantities.

The tyre supplier may choose to provide additional tyres of a different specification, for tyre development purposes. The allocation of any development tyres will be solely at the discretion of the tyre supplier.

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. Rear or side numbers are optional.
2. Numbers should be a minimum height of 140 mm.
3. Numbers must be easily legible, in a clear simple font and contrast strongly with the background colour.

   In the Moto2 class, numbers must be of one single colour which contrasts strongly with the background colour. A small outline in a different colour is permitted. Two-digit numbers must have a separation (min. 10 mm) between digits so the background colour is visible between digits. Reflective finishes (eg. silver, gold, etc.) are not permitted.
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.

   In the Moto2 class reflective finishes (eg. silver, gold, etc.) are not permitted.
5. In the Moto2 class, teams with more than one rider must differentiate between the riders by using different number and/or background colours.
6. In case of a dispute concerning the legibility of numbers, the decision of the Technical Director will be final.

2.5.5 General

2.5.5.1 Fuel and Oil

1. All motorcycles must be fuelled with unleaded petrol, which must comply with the FIM Grand Prix specification for each racing class.

2. Unleaded petrol will comply with the FIM Grand Prix specification if:

   a) It has the following characteristics:

Property	Units	Min.	Max.	Test Method
RON		95.0	102.0	ISO 5164
MON		85.0	90.0	ISO 5163
Oxygen	% (m/m)		2.7	ISO 22854
Benzene	% (v/v)		1.0	ISO 22854
Vapour Pressure (DVPE)	kPa		90	EN 13016-1
Lead	mg/L		5.0	EN 237
Density at 15 °C	kg/m3	720.0	775.0	ASTM D 4052
Oxidation Stability	minutes	360		ASTM D 525
Existent gum	mg/100 mL		5.0	EN ISO 6246
Sulphur	mg/kg		10	ASTM D 5453
Nitrogen	% (m/m)		0.2	ASTM D 4629
Copper Corrosion	Rating		Class 1	ISO 2160
Distillation:				
At 70 °C	% (v/v)	22.0	50.0	ISO 3405
At 100 °C	% (v/v)	46.0	71.0	ISO 3405
At 150 °C	% (v/v)	75.0		ISO 3405
Final Boiling Point	°C		210.0	ISO 3405
Residue	% (v/v)		2.0	ISO 3405
Olefins(*)	% (v/v)		18.0	ISO 22854
Aromatics(*)	% (v/v)		35.0	ISO 22854
Total di-olefins	% m/m		1.0	GCMS/HPLC GCMS/HPLC
Appearance		clear and bright		visual inspection

All test methods include a precision statement. In cases of dispute, the procedures for resolving the dispute and interpretation of the results based on test method precision, described in ISO 4259, shall be used.

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.

Compliance with the compositional regulation is calculated on the following basis:

A = 100 – B –C

where:

A. is the total concentration (in % m/m) of individual hydrocarbon components present at concentrations less than 5 % m/m,

B. is the total concentration (in % m/m) of oxygenates present in the fuel, and

C. is the total concentration (in % m/m) of individual hydrocarbon components present at concentrations greater than 5% m/m.

The test method will be gas chromatography.

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) Only the following oxygenates will be permitted:

Methanol, Ethanol, Iso-propyl alcohol, Iso-butyl alcohol, Methyl tertiary butyl ether, Ethyl tertiary butyl ether, Tertiary amyl methyl ether, Di-isopropyl ether, n-Propyl alcohol, Tertiary butyl alcohol, n-Butyl alcohol, Secondary butyl alcohol.

e) Manganese (<1 mg/L), lead (<5 mg/L), iron (<5 mg/L) and nickel (<5 mg/L) additives are not permitted above these limits.

f) In the Moto2 class, oil for engine lubrication will comply with the FIM Grand Prix Moto2 specification if it matches the reference Gas Chromatography fingerprint(s) for the official oil(s) of the relevant class, established by the appointed oil supplier.

g) In the Moto2 class, the fuel and oil specification will be determined by the appointed fuel supplier and oil supplier in consultation with the Organisers and the official engine supplier and may be changed at any time by mutual agreement.

3. Moto2 class fuel and oil:

a) Only fuel 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.

b) Only engine oil from the appointed oil supplier is permitted. This oil will be available at all official events and will conform to the FIM Grand Prix specification for the relevant class. The use of the official oil without any addition or alteration is mandatory. The Technical Director may require that an oil sample be taken from any team or machine at any time.

5. Fuel and Oil Approval

1. All fuel in use in the Championship must be approved prior to the race in which the fuel is to be used. Fuel companies supplying petrol to participating teams must submit ten litres (2 x 5 L) to the laboratory appointed by the FIM/Dorna for analysis in accordance with the specification. Providing the petrol is within the specification, a certificate containing a test report number will be issued. The test report number must be given to the appropriate teams before they take part in a race.

2. All companies supplying oil, for engine lubrication in the Moto2 class, to participating teams must submit two litres (2 x 1 L) of the oil to the laboratory appointed by the FIM/Dorna for approval. If the oil conforms to the specifications, a certificate will be issued. The test report number given on the certificate must be supplied to teams which intend to use the oil.

3. During Thursday's technical control, each team will declare the certificate test report numbers corresponding to the petrol and oil to be used. This information will be entered in the Technical Control Book of each motorcycle at every Grand Prix.

   Therefore, the fuel which is to be used must be approved by the Thursday afternoon before the race in which the fuel is to be used.

4. When a fuel sample is requested at any Grand Prix Circuit, either during practice, warm up or following the race, the certificate test report numbers corresponding to the petrol and oil used must be declared to the Grand Prix Technical Director by the team. Failure to provide the correct number **may** result in a **penalty**.

5. Each fuel and/or oil Company will be responsible for payment to the laboratory for these batch analyses costs and establishment of the basic fingerprints.

6. Fuel and Oil Sampling and Testing

   1. The Grand Prix Technical Director will appoint a senior Technical Scrutineer to take responsibility for the administration and supervision of the fuel sampling procedure.

   2. Motorcycles selected for fuel controls will usually be amongst the first three finishers, and will be directed to the "parc fermé" for technical controls.

   3. 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".

   4. 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.

   5. Only new bottles will be used for the fuel samples and only new materials will be used to transfer the fuel.

   6. 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.

7. 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 petrol and oil using gas chromatography. 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 of the GC curve 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 FIM Grand Prix specification as described in Article 2.5.5.1.2

   Costs for the analyses of sample “A” will be paid by FIM/Dorna.

8. 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.

9. Both samples will be transported by an authorised courier.

10. The laboratory must deliver the results of the fuel sample analyses to the Grand Prix Technical Director, with a copy to the FIM, as soon as possible after receipt of the samples.

11. In the case of non-conformity, the Technical Director must notify, as soon as practical after receipt of the results, the FIM, the Grand Prix Race Direction 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 FIM and the Technical Director if counter-expertise is required (or not required) for sample “B”.

    The Race Direction will take a decision at the Grand Prix 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 Grand Prix event at which the Race Direction decision is taken.

If there is no more Grand Prix 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 Race Direction will be heard by the FIM Stewards appointed by the FIM for this specific task.

12. 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.

13. Failure of the sample to comply to approved petrol and/or the addition of octane and power boosters, as described in Article 2.5.5.1.6.7, 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.

14. In the Moto2 class, the above fuel sampling and testing procedure will apply to engine oil also. In the case that the oil sample does not comply with the relevant specification as described in Art. 2.5.5.1.2.(f), the Technical Director will inform Race Direction who may impose a penalty.

7. Fuel Temperature

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.

2.5.5.2 Protective Clothing and Helmets

1. Riders must wear a complete leather suit with additional leather padding or other protection on the principal contact points, knees, elbows, shoulders, hips etc.

2. Linings or undergarments must not be made of a synthetic material which might melt and cause damage to the riders' skin.

3. Riders must also wear leather gloves and boots, which with the suit provides complete coverage from the neck down.
4. Leather substitute materials may be used, providing they have been checked by the Chief Technical Scrutineer.
5. Use of a back protector is highly recommended.
6. Riders must wear a helmet which is in good condition, provides a good fit and is properly fastened.
7. Helmets must be of the full face type and conform to one of the recognised international standards:

   - Europe ECE 22-05 “P”
   - Japan JIS T 8133: 2007 (valid until 31.12.2015)
     JIS valid from 1.1.2013
   - USA SNELL M 2010 **(valid until 31.12.2019)**
     SNELL M 2015

Refer to Appendix. Table 6 International Helmets Standards for details.

8. Visors must be made of a shatterproof material.
9. Disposable “tear-offs” are permitted.
10. Any question concerning the suitability or condition of the riders clothing and/or helmet shall be decided by the Technical Director, who may, if he so wishes, consult with the manufacturers of the product before making a final decision.

2.5.5.3 Procedures for Technical Control

1. At each circuit an area must be designated as the Technical Checking Area. In this area, under the control of the Chief Technical Scrutineer and the supervision of the Technical Director, suitable equipment will be installed to conduct the various tests viz:

   i) Equipment for measuring the noise of the motorcycle.

   ii) Weighing scales with check weights for calibration purposes.

   iii) Instruments for measuring engine capacity.

   iv) Instruments and gauges as necessary for measuring other dimensions and criteria specified in the Technical Regulations.

2. The technical control procedure will be carried out in accordance with the schedule set out in the Regulations. The technical scrutineers must be available throughout the event to check motorcycles and equipment as required by the Technical Director.

3. Presentation of a machine will be deemed as an implicit statement of conformity with the technical regulations. Responsibility for the preparation of the machine to comply with all technical and safety regulations rests with the team.

4. A rider's presence at the initial technical control is not mandatory, except in the case of the Moto2 class when the rider must be present for a weight check together with his helmet and all protective clothing.

5. Motorcycles will be inspected under the name of the team and at the initial technical control each motorcycle will be registered by the technical scrutineers who will prepare a technical control card to record technical specifications, check results and the riders in that team entitled to use the motorcycle.

6. At the initial technical control the technical scrutineers should inspect the motorcycle to record technical details including weight (plus rider weight in the Moto2 class), noise level and may also check the motorcycle for technical compliance with other aspects of the Regulations, as requested by the Technical Director.

8. At each event, at the conclusion of technical control procedures prior to the first practice, the technical scrutineers will place a small sticker on the motorcycle indicating that it has been registered for use by the team's rider(s) for that race and passed the technical control procedures.

9. The Chief Technical Scrutineer will prepare a report on the results of technical control which, will be submitted to the Event Management Committee via the Technical Director.

10. The technical scrutineers should re-inspect any machine that has been involved in an accident, and if necessary to issue a new technical control sticker for a rebuilt machine. This would normally be carried out at the pit of the rider concerned. The team has sole responsibility for any repairs carried out, and to determine when the machine is fit for further use.

11. The technical scrutineers must be available, based on instructions from the Technical Director, to re-inspect any motorcycle for technical compliance during the meeting or after the race and to supervise inspection of a motorcycle following a protest on a technical matter.

12. At the end of the race, the Chief Technical Scrutineer will ensure that the motorcycles placed in the first three positions, plus any other motorcycles designated by the Technical Director, are placed in the Check Area for a period of 60 minutes pending any protest.

    The motorcycles should be checked for compliance with the noise and weight regulations, and any other technical requirement, under the control of and as requested by the Technical Director

13. The Technical Director may require a team to provide such parts or samples as he may deem necessary.

2.5.5.4 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 levels at all times are:

    Moto2: 115 dB/A

    For convenience, the test may be conducted at a fixed RPM.

	1 cylinder	2 cylinders	3 cylinders	4 cylinders
Moto2	5,500 rpm	5’500 rpm	5’500 rpm	5’500 rpm

2.6 Moto3 Class Technical Regulations

Refer to Article 1.11.11 for regulations concerning entry and supply conditions for Moto3 Manufacturers, and equipment ordering for Moto3 teams.

2.6.3 Engines

2.6.3.1 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.

Moto3 Class Engines

11. Maximum engine RPM (crankshaft speed) is **13,500** rpm, controlled by the official ECU.*

12. 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 Diagram 7 in the Appendix for some examples of permitted systems).

2.6.3.2 Engine Supply

21. Moto3 Engine Definition and Homologation

    a) The engine is defined as the complete engine including intake system (throttle body, injectors), and one complete transmission. ‘Complete engine’ here means ready to undergo the Initial Mapping procedure (refer to Art. 2.6.3.5.24, therefore including necessary sensors and electrical items to run for calibration (e.g. spark plugs, pickups, idle bypass motor [if used], etc.).

b) Each engine manufacturer may homologate a maximum of two different engine specifications per season. Manufacturers must supply all permanent contracted riders with the same specification engines, the second specification (if any) is intended for Wild Card entries only.

Only homologated engines and parts may be used in GP events.

Note that from 2016 Wild Card entries may use a currently homologated engine or any previously homologated engine from the 2014 or 2015 seasons. [GPC Valencia, 7.11.2015]

22. Moto3 Engine Availability

a) Each engine manufacturer must undertake to supply sufficient engines and spare parts to supply **12** riders per season if requested. The following conditions apply:

i) **This requirement may be adjusted by the Organiser, subject to agreement by the Moto3 Manufacturers, in special circumstances (eg. a new manufacturer entering for the first time).**

ii) The minimum supply number may be comprised of complete motorcycles or separate engines. Manufacturers supplying complete motorcycles must allow their customers to also purchase spare complete engines and parts as necessary to complete the season.

iii) Engine supply requests which comply with the manufacturer's requirements for payment and terms, will be noted in chronological order to determine the first officially accepted requests up to the minimum requirement.

iv) This minimum supply applies to each separate engine specification (according to Art. 2.6.3.5.24) offered by the manufacturer.

v) Lead-time of complete engines is a maximum of 4 calendar months regardless of quantity. Lead-time starts from the official order receipt or the completion date of the engine entry procedure (see Art. 2.6.3.5.24 above), whichever is the later.

23. Moto3 Engine Price

a) The maximum price of a single engine must not exceed 12,000 €uros (twelve thousand Euros). No optional parts or service contracts may be used to circumvent this price limit.

b) **For contracted riders,** the manufacturer undertakes to supply customer teams with a "Moto3 Engine Package" for the season for which it may charge a maximum of **60,000 €uros** (excluding VAT, excluding freight) per rider. The Moto3 Engine Package will be comprised of:

6 engines, without throttle bodies, without gearboxes

2 throttle bodies

Gearboxes will be purchased separately as the team requires. Teams may purchase up to a maximum of 6 complete gearboxes per contracted rider per season at a capped price of 1,500 €uros each. Any additional gearboxes purchased will be charged as per the Manufacturer's approved price list.

c) As an exception to clause b) above, for engine manufacturers in their first season of Moto3 the maximum number of engines per rider per season is 8 (Art. 2.6.3.3.11.b). Therefore first-time manufacturers may charge a maximum of **79,000 €uros** (excluding VAT, excluding freight) per rider for the Moto3 Engine Package comprised of:

8 engines, without throttle bodies, without gearboxes

2 throttle bodies

Gearboxes will be purchased separately as the team requires. Teams may purchase up to a maximum of 6 complete gearboxes per contracted rider per season at a capped price of 1,500 €uros each. Any additional gearboxes purchased will be charged as per the Manufacturer's approved price list.

24. Moto3 Engine Allocation and **Verification**

a) Engines will be sold by the manufacturer to the team and remain the property of the team, however engine distribution will be controlled by the Organiser to ensure equality of specification.

b) Manufacturers will deliver the engines in three batches (minimum of 2 engines per rider in each batch), in a schedule approved by the Technical Director prior to the season. The delivery schedule will also include **one additional engine for verification purposes, plus** sufficient spare engines, as approved by the Technical Director (normally 50% of the number of riders using that engine brand).

c) The engines will be sealed by the Technical Director and staff, who will randomly select engines for delivery to the teams supplied by each manufacturer. Spare engines will also be sealed ready for distribution as required.

d) The Technical Director and his staff will randomly select one of the engines from the first batch to be sealed and held as the sample engine.

When batches 2 and 3 are delivered the Technical Director and his staff will randomly choose one engine from each batch to be opened and checked for conformity with the sample engine.

After a batch is confirmed to be the correct specification, the engines in that batch will be sealed and randomly allocated to the teams. No protests against engine specification will be accepted for such confirmed and sealed engines.

The engine opened for verification may be reassembled under supervision of the Technical Director and staff, or the manufacturer may choose to withdraw it from the allocation.

25. Moto3 Engine Maintenance and Updates

a) Maintenance and rebuilding of engines by teams is not permitted. Engines will be delivered to the team with official security seals in place.

b) Optional and aftermarket parts are not permitted, except for parts that can be changed without removing the official engine seals. For such parts the homologation, supply and price rules described in Art. 2.6.3.2.26 will apply.

c) In case of a proven, documented reliability or safety issue (eg. a faulty batch of parts), a manufacturer may apply to the Grand Prix Commission to allow replacement parts to be fitted to rectify the problem. If approved, teams may not be charged, and engine power performance may not be altered in any way.

26. Moto3 Parts Supply

a) Each engine manufacturer must submit a price and lead-time list of all the parts of the engine which may be changed (ie. those parts outside of the official security seals). The list **must** include**:**

a complete engine minus throttle body and transmission parts.

a separate "Gearbox Update" price list for any updated gearbox parts introduced during the season (see 2.6.3.2.27.b below). For gearbox specification updates only, the list must be for a complete gearbox where the total of all parts does not exceed 1,500 €uros.

b) This price list is subject to approval by the Organiser and the manufacturer may not charge more than these published prices. Approval is based on the prices and lead-times being in line with current market norms for these parts and technologies.

c) Only parts on the relevant manufacturer's parts list may be used. Any alternative brand or supplier of a part must be approved by the engine manufacturer and that part added to the manufacturer's official parts list.

An exception is made in the case of a Back-Torque-Limiter clutch assembly (BTL or Slipper Clutch). This may be offered as an alternative to the original clutch assembly by the manufacturer, or supplied to teams by a third-party (aftermarket) supplier. In each case the maximum price for the clutch assembly is 1,500 €uros (excluding VAT, excluding freight). Any third-party supplied clutches must first be approved by the Technical Director (such approval will include submission of a detailed parts price list), and when first introduced must be available to at least the same number of riders as in Art. 2.6.3.2.22 above.

Note that from 2016, manufacturers will be permitted to list multiple manufacturers for sensors on their official parts list. The sensor package price must not cause the total chassis price to exceed the price cap, and the sensor list must be finalised by the close of technical control at the first event of the season. [GPC Valencia, 7.11.2015]

d) Updates to parts on the list are permitted, but must be approved by the Technical Director and added to the official published parts list. Price and lead-time for updated parts must not be more than those for the original parts in the manufacturer's approved parts list. Updated parts must be available to all customers at the same time, and may not be used until the manufacturer has the required availability.

27. Moto3 Engine and Parts Updates

Updates to the specification of engines or engine parts are not permitted during the season, with the following exceptions.

Throttle body specification may be updated once per season. If updated, one of the updated units must be supplied free of charge, and at the same time, to each of the contracted riders supplied by that manufacturer. Any additional units ordered by the teams will be charged as per the manufacturer's approved price list.

The complete gearbox or individual components may be updated once per season. Any updates must be available to all contracted riders at the same time.

If a complete updated gearbox is introduced, teams are permitted to purchase up to a maximum of 8 updated gearboxes per contracted rider per season at a capped price of 1,500 €uros each.

If an update consists of one or more components rather than a complete gearbox then the parts will be charged as per the "Gearbox Update price list" (see 2.6.3.2.26.a above). Teams are permitted to purchase up to a maximum of 6 of each updated part at these prices. Any additional parts ordered will be charged as per the manufacturer's standard approved price list.

28. Moto3 Approved Parts

Only parts that have been approved (homologated) by the Technical Director may be used on a Moto3 engine. These parts can be from the **approved** parts list of any of the homologated versions of a manufacturer's engine, or from the **approved** parts list of **a third-party (aftermarket) clutch supplier.**

Generic ancillaries not specialised to the specific engine design, such as bolts and fasteners, are not subject to approval.

2.6.3.3 Engine Durability

Moto3 Class

11. In the Moto3 class the number of engines available to each contracted rider is limited to 6 engines per rider for all of the scheduled races of the season. The limit applies to practice and race at GP events only, engines for testing outside of events are not controlled.

    a) Should a rider be replaced for any reason, the replacement rider will be deemed to be the original rider for purposes of engine allocation.

    b) For engine manufacturers in their first Moto3 season the maximum number of engines per rider per season is 8.

    c) Each wild card entry is allowed two engines per event for his exclusive use.

12. The engines available for the exclusive use of each rider must be marked and sealed by the Technical Director or his staff prior to first use. It is the Team's obligation to register any new engine with the Technical Director prior to use. Once registered and used for the first time, engines may not be swapped between riders, even within the same team. A new engine is deemed to be used when the motorcycle with that engine crosses the transponder timing point at the pit lane exit.

13. The engines will be sealed (e.g. by means of wiring and identification tabs, stickers, etc) so that major components (including but not limited to: crankshaft and it's bearings, conrod and it's bearings, piston, piston rings and piston pin, valves and their springs, camshafts) can not be replaced. Sealing positions must be approved by the Technical Director so that:

    a) **The cylinder head cover cannot be removed from the cylinder head. If the engine design allows for valve clearance and/or camchain maintenance without removing the cylinder head cover,** ~~(~~it must not be possible to remove camshafts and rocker arms, if any, without breaking the seals.

    b) the cylinder head and the cylinder (if any) cannot be removed from the engine (e.g. the cylinder head is wired to the cylinder and the cylinder is wired to the engine crankcase).

c) the crankcase cannot be opened (e.g. the crankcase halves are wired together).

All the parts that are accessible without removing the security seals can be replaced. Breaking or removing the seal or wiring without supervision by the Technical Director or staff will be deemed to be “engine rebuilding” and engines with broken, tampered with or missing security seals will be treated as a new engine in the allocation.

14. Should a competitor, for any reason, require the use of another engine above their allocation, the Technical Director must be informed before the new engine is used, and Race Direction will apply the appropriate penalty according to the Sporting Regulations **(Art. 1.21.20)**.

    The damaged engine will be removed from the allocation and if it is used again, it will be treated as a new engine with the appropriate penalty.

15. There is no limit to the number of times a sealed, allocated engine can be fitted to and used in a motorcycle, provided the security seal is not broken or removed. Replacing an engine with another sealed engine (new or used) from the rider’s allocation is allowed with no penalty.

16. As an exception to the above, it will be possible **for a team to apply to the Technical Director** to break the seals **under** the following conditions**:**

    a) permission may or may not be granted at the sole discretion of the Technical Director,

    b) any work permitted is under supervision of the Technical Director or staff,

    c) with the sole purpose of:

    To inspect, clean and repair damage to sealed engine parts caused solely by a crash. The only parts that may be replaced during such supervised repairs are non-moving items (e.g. covers, cases and related seals), exhibiting crash damage as determined by the Technical Director.

2.6.3.5 Electronics

2. Tyre temperature/pressure sensors are permitted in all classes.

Moto3 Ignition, Electronics, Datalogger

21) a) Only the ignition/fuel injection control units ("ECU")* supplied by the series Organiser are allowed. 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, as delivered by the Organiser. **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.**

b) Only the official "Race" version of the ECU software supplied by the ECU manufacturer may 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.

Only the official manufacturer (or their official representative) of the homologated engine may provide new configuration files (which must be available to all customers), and the manufacturer is permitted to use their "Factory" version software to modify existing configuration files.

c) Within 4 hours of the end of Free Practice 2 of an event, each manufacturer must submit for approval to the Technical Director and the official ECU supplier any new configuration files that they wish to use at that event or any future events.

Once a configuration file has been submitted it is not allowed to be modified, other than what is allowed with the "Race" version of the ECU software license.

It is the responsibility of the manufacturer to ensure that all their customers are aware of which configuration files are approved for use.

All configuration files once approved will stay on the approved list until the end of the season, unless the manufacturer requests them to be removed.

d) The Technical Director may require the team to change the ECU on any machine for another standard one at any time.

e) The official ECU will include a datalogger*, and no other additional dataloggers are permitted. **Data analysis software is not controlled.**

f) 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.*

NB. * for all ECU and electronic items identified with this symbol, details are available at the website: http://www.dellorto-pe.com/

22. Compulsory Engine Management features.

Refer to Table 3 in the Appendix for details of compulsory engine management equipment and design, including ignition and sensors.

23. Recommended Engine Management features.

Refer to table 4 in the Appendix for details of recommended engine management and electronic equipment and design, including timing pattern, O^2 sensor, knock sensor, idle control, dashboard.

24. There is a compulsory official Initial Mapping and Set Up Procedure for new engines to be compatible with the official ECU. Refer to Table 5 in the Appendix for details of the initial mapping options.

2.6.3.6 Fuel System

Moto3 Class fuel system

15. Maximum relative fuel pressure is 5.0 Bar.

16. Variable – length inlet tract systems are not permitted.

17. Only one throttle control valve per throttle body is permitted to control the power demand by the rider, which must be controlled exclusively by mechanical means (e.g. 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.

18. 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.

19. Fuel injectors must be located upstream of the engine intake valves.
20. A maximum of 2 fuel injectors per throttle body, and 2 independent fuel injector drivers, controlled by the official ECU*, is permitted.
21. Other than engine sump breather gases, only air/fuel mixture is permitted in the inlet tract and combustion chamber.

2.6.3.7 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.

Moto3 class exhaust:

11. No moving parts (e.g. valves, baffles) are permitted in the exhaust system.
12. **Exhausts are not included in the Moto3 Chassis Homologation regulations (Art. 2.6.4), so the choice of exhaust supplier is free.**

2.6.3.8 Control Systems

1. The use of hydraulic and/or pneumatic pressurized powered systems is not allowed, with the exception of cylinder inlet/exhaust valve springs in the MotoGP class. 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.

   Pneumatic engine valve closing systems are allowed in the MotoGP class only.

   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.

2.6.3.9 Transmission

1. A maximum of six gear 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. Manual transmissions with gearshifts assisted by quick-shifter systems are permitted.

Moto3 class Transmission

11. A maximum of 2 possible gear ratios for each gearbox speed, and 2 possible ratios for the primary drive gear is permitted. Teams will be required to declare the two gearbox ratios chosen for each gear at the beginning of the season, and only these ratios may be used during the entire season.

    Note that from 2016, the maximum number of ratios for the primary drive will be 3. [GPC Valencia, 7.11.2015]

12. Gearbox systems must be of the conventional type. That is; constant-mesh with engagement dogs as an integral part of the gear, 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.
13. Electro-mechanical and/or electro-hydraulic clutch actuating systems are not permitted.

2.6.3.10 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 frame, the front forks, the handle-bars, the swinging arm spindles, and the wheel spindles is forbidden. For wheel spindles, the use of light alloys is also forbidden.
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. 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/cm3).

6. The use of MMC (Metal Matrix Composite) and FRM (Fibre Reinforced Metal) materials is forbidden.

8. In the Moto3 class, 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.

2.6.4 Chassis

<u>Moto3 Chassis Homologation and Supply</u>

a) The rolling chassis may only be supplied by one of the engine Manufacturers participating in the Moto3 class. This manufacturer may appoint sub-contractor(s) or independent supplier(s) to provide chassis or components, but the responsibility for the homologation, price and sale of the complete chassis rests with the manufacturer.

b) Each Manufacturer is permitted to homologate only one version of it's own chassis and one version of any third-party supplied chassis they make available. Teams may use a chassis homologated from a previous season.

c) The complete rolling chassis and all Performance Parts, excluding wheels and exhausts (see f. and h. below), will be homologated, with a homologation deadline of 31 January for each season. The deadline for submission of technical details, drawings or sample parts requested by the Technical Director for homologation, is the end of Technical Control of the first race of the season. Homologation includes submission of a price list for all parts, the total of which may not exceed 120% of the complete chassis package price.

d) For 2015 only, teams that wish to use their existing non-homologated 2014 chassis must submit their rolling chassis for homologation by the 31 January deadline. In this case the following conditions apply:

- **No upgrades to performance parts (see f. below) are permitted during the season.**
- **Sensors that are not listed in the manufacturer's 2015 approved complete chassis parts list are not permitted.**
- **Only the front and rear suspension specification that is homologated on the manufacturer's 2015 chassis may be used on the 2014 chassis.**
- **2015 parts may not be used on a 2014 chassis unless they are the same part, or are the sensors and suspension as described above.**

e) The price of a complete rolling chassis (requiring only engine, ECU/ Datalogger, transponder) will be capped at 85,000 €uros (excluding VAT, excluding freight). The price includes the cost of one piece of any updated performance parts supplied during the season (see g. below).

f) The following items will be designated as "Performance Parts" and must be homologated:

- **Chassis**
- **Swing Arm**
- **Seat**
- **Bodywork (excluding screen)**
- **Fuel Tank**
- **Suspension (excluding internal and setting parts*).**

*** internal suspension parts are not homologated and not controlled. They may be modified or replaced at any time by the team or suspension manufacturer.**

Note that from 2016 it is permitted to modify the bodywork and seat by removing material only, and the following parts will be added to the list of Performance Parts: [GPC Valencia, 7.11.2015]

- **Radiator and/or Heat Exchangers**
- **Air Box complete, including any breathers, catch tanks and related connections.**

g) Each chassis component designated as performance parts may be updated a maximum of once per season. Any updated parts must be available to all customers of that manufacturer at the same time, and one piece per contracted rider of any updated part must be supplied free of charge to all customers. Any additional orders of updated parts will be charged as per the manufacturer's approved price list, in which updated parts may not exceed the price of the original part.

h) The remaining chassis parts, not designated as performance parts, do not require homologation and may be updated as required under the following conditions:

- **Only parts on the relevant manufacturer's parts list may be used. Any alternative brand or supplier of a part must be approved by the chassis manufacturer and that part added to the manufacturer's parts list.**
- **Updates to parts are permitted but must be approved by the Technical Director and added to the official published parts list.**
- **Price and lead-time for updated parts must not be more than those for the original parts in the manufacturer's approved parts list. Updated parts must be available to all customers at the same time, and may not be used until the manufacturer has the required availability.**
- **Wheels and exhausts do not require homologation, teams are free to choose any supplier with no price or supply conditions. However a complete rolling chassis supplied by the manufacturer must include one exhaust system and one front and one rear wheel.**
- **Generic ancillaries not specialised to the specific chassis design, such as bolts and fasteners, are not subject to approval.**

i) Each manufacturer may define a list of "Setting Parts", limited to the items in the list below. The complete rolling chassis package will be supplied with one type of the setting part, other variations may be purchased by the team according to the manufacturer's approved price list, where the materials, basic structure and price are the same as the original part. Setting Parts:

- **Handlebar clamps**
- **Footpeg mounting plates**
- **Seat pads**
- **Steering-head bearing inserts**
- **Swingarm pivot mounts**
- **Suspension linkages**
- **Front fork triple clamps**
- **Windscreen**
- **Drive chain sprockets**

Note that from 2016 all chassis parts that are not listed as Performance Parts or Sensors may be upgraded or changed as required with no homologation, price or supply conditions. Therefore section i) above (Setting Parts) will be deleted. [GPC Valencia, 7.11.2015]

2.6.4.1 Weights

1. The following are the minimum weights permitted:

   Moto3 motorcycle + rider **149** kg

   Note that for 2016 the minimum weight will increase to 152 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.

For the Moto3 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.

2.6.4.2 Safety and Construction criteria

Note: Please also refer to diagrams 1, 2 and 3 in the Appendix.

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.

3. Steering

   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.

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 as directed by the Technical Director.

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) Correct attachment of the transponder bracket consists of a minimum of tie-wraps, but preferably by screw or rivet. Velcro or adhesive alone will not be accepted, and any transponder retaining clip must also be secured by a tie-wrap.

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. Where signals are required to be displayed on the motorcycle, the display device (eg. dashboard) must be compatible and fully functional for this purpose, as approved by the Technical Director. Refer to Table 7 in the Appendix for the current list of signals required to be displayed.

11. Onboard Cameras

Where the Organiser has required a team to carry onboard camera(s) under Art. 1.21.13, such cameras and associated equipment must be carried during all practice sessions and the race, or as requested by the Organiser.

Cameras and other equipment will be supplied to the designated Teams no later than 10h00 on the day preceding the first day of practice at an event.

Teams must give reasonable access and assistance to the company designated for the supply of the camera equipment to facilitate the mounting of the equipment.

All on-board camera equipment must be fitted to the machine following the mounting instructions and only in the location(s) specified by the Organiser. Such fitting details will be communicated to the manufacturers and teams before July of the previous season.

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 – 15 W (incandescent) 0.6 – 1.8 W (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.

2.6.4.3 Brakes

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

2. In the Moto3 class, only brake discs of ferrous materials are allowed.

4. 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. Al2O3, SiC, B4C, Ti5Si3, SiO2, Si3N4).

5. 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.

6. 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. 2.6.3.8 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.

2.6.4.4 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.

2.6.4.5 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, 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.

   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 homologation.

   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-live.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.

6. 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.

2.6.4.7 Bodywork

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 beyond a line drawn vertically at the leading edge of the front tyre 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) 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. Wings may be fitted provided they are an integral part of the fairing or seat and do not exceed the width of the fairing or seat or the height of the handlebars. Any sharp edges must be rounded. Moving aerodynamic devices are prohibited.

   Note that from 2016, all edges of any wings fitted must have a minimum radius of 2.5 mm. [GPC Valencia, 7.11.2015]

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 litres for Moto3). **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 should incorporate a maximum of two holes of 25mm. These holes must remain closed in dry conditions and must be only opened in wet race conditions, as declared by the Race Director.

2.6.4.8 Wheel Rims

1. Permitted wheel rim sizes are as follows:

	Front	Rear
Moto3	2.50” x 17” only	3.50” 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 standards published in the document "FIM Wheels Standard Grand Prix 2015", and be certified by the wheel manufacturer.**

   (refer to http://www.fim-live.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 standards document.**
   - **Every wheel of this design or model must be identified with the model code and a unique serial number, by a permanent marking.**

     (note that from 2016 these identification markings must be visible with the tyre fitted).
   - **Each individual design or model that has passed the standards tests will be certified by an official document issued by the wheel manufacturer stating that the wheel conforms to the homologation standard: FIM Wheels Standard Grand Prix 2015.**
   - **A copy of this compliance certificate must be sent to the MotoGP Technical Director (Danny Aldridge danny@irta.org.uk) and to the FIM International Technical Commission (CTI) co-ordinator (Charles Hennekam charles.hennekam@fim.ch). A copy of this certificate must also be provided to customers together with homologated wheels purchased.**

4. **Wheels are not included in the Moto3 Chassis Homologation regulations (Art. 2.6.4), so the choice of wheel supplier is free.**

2.6.4.9 Tyre restrictions

1. In all classes, only tyres from the official appointed tyre supplier for each class may be used in a Grand Prix event, including official tests.

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

   The tyre specifications available at each event will be determined by the tyre supplier. 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.

2. During the two days prior to 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.

   The Technical Director and staff will allocate the tyres available for the exclusive use of each entered rider (as described in Article 2.6.4.9.3). The allocation of individual tyres will be made on a random basis with no involvement of any representative from the tyre supplier, teams or riders.

   This allocation should be completed by 14.00 hrs and no further allocation of tyres is allowed after 17.00 hrs on the day prior to the start of official practice (except under Arts. 2.6.4.9.3 front tyre specification choice, 2.6.4.9.7 or 2.6.4.9.8).

   In the case of a rider change after the final tyre allocation has been made, the replacement rider must use only the tyres allocated to the original rider.

3. For Grand Prix race events, each rider will be restricted in the quantity and specification of tyres that they may use at a single race event as follows:

   C. Moto3 Class

   During all practice sessions, warm up and the race a maximum of 17 slick tyres, specifically:

   Front slick tyres:

   8 front tyres, comprised of 2 of the standard specifications only (S, M, H).

   Rear slick tyres:

   9 rear tyres, comprised of 2 of the standard specifications only (S, M, H).

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.

Wet tyre quantities are not restricted, however only the current specification of wet tyres from the Official tyre supplier may be used. The tyre supplier undertakes to have available 3 sets of wet tyres (4 sets in case every practice session is declared wet) per rider. Tyres of the correct specification retained by the team from previous events may be used.

4. a) Riders may use only the tyres allocated for his/her exclusive use (as described in Article 2.6.4.9.3).

   b) Tyres will be individually identified and may not be exchanged between riders, including between team-mates, and may not be exchanged by the tyre supplier after allocation, except with the permission of the Technical Director (for example, under Article 2.6.4.9.8).

   c) 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. Each allocated tyre must be marked with its specification and carry an official identification label with a unique serial number. In the event of damage to or loss of the official label, the tyre company must be able to satisfy the Technical Director as to the tyre's specification. Tyres may be checked for compliance at any time, before or after use.

6. In the case of an interrupted race, a rider must use tyres from his allocation of marked tyres for the restarted race.

7. In the unlikely event of a tyre being accidentally damaged before it is used (for example during the fitting process) 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.

   c) Tyres that are deemed to have covered more than 2/3 of race distance will not be considered for replacement. The determination of distance covered will be the sole decision of the Technical Director in consultation with the tyre supplier, and the team may be required to submit information such as lap charts and logger data to support a claim.

      In determining whether a replacement will be allowed the decision of the Technical Director will be final.

   d) If a replacement tyre is granted, it must be of the same specification as the damaged tyre and selected at random by the Technical Director and/or his staff.

8. 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.

   A re-allocation of suitable tyres may be made under the supervision of the Technical Director. Such allocated tyres will be the same specification(s) and quantities for all riders, the quantity being determined by the tyre supplier in consultation with the Technical Director.

9. Tests, Moto3 Class:

   D. For all winter and post-race tests, each rider will be restricted in the quantity and specification of tyres they may use at a single test. The tyre supplier will determine the number of specifications and quantities it will bring to each test. Every rider present will receive the same allocation of standard tyre specifications and quantities.

   The tyre supplier may choose to provide additional tyres of a different specification, for tyre development purposes. The allocation of any development tyres will be solely at the discretion of the tyre supplier.

2.6.4.10 Numbers and Backgrounds

1. The racing number must be affixed to the front of the motorcycle fairing in a central position. Rear or side numbers are optional.
2. Numbers should be a minimum height of 140 mm.
3. Numbers must be easily legible, in a clear simple font and contrast strongly with the background colour.

   In the Moto3 class, numbers must be of one single colour which contrasts strongly with the background colour. A small outline in a different colour is permitted. Two-digit numbers must have a separation (min. 10 mm) between digits so the background colour is visible between digits. Reflective finishes (eg. silver, gold, etc.) are not permitted.
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.

   In the Moto3 class reflective finishes (eg. silver, gold, etc.) are not permitted.
5. In the Moto3 class, teams with more than one rider must differentiate between the riders by using different number and/or background colours.
6. In case of a dispute concerning the legibility of numbers, the decision of the Technical Director will be final.

2.6.5 General

2.6.5.1 Fuel and Oil

1. All motorcycles must be fuelled with unleaded petrol, which must comply with the FIM Grand Prix specification for each racing class.

2. Unleaded petrol will comply with the FIM Grand Prix specification if:

(a) It has the following characteristics:

Property	Units	Min.	Max.	Test Method
RON		95.0	102.0	ISO 5164
MON		85.0	90.0	ISO 5163
Oxygen	% (m/m)		2.7	ISO 22854
Benzene	% (v/v)		1.0	ISO 22854
Vapour Pressure (DVPE)	kPa		90	EN 13016-1
Lead	mg/L		5.0	EN 237
Density at 15 °C	kg/m3	720.0	775.0	ASTM D 4052
Oxidation Stability	minutes	360		ASTM D 525
Existent gum	mg/100 mL		5.0	EN ISO 6246
Sulphur	mg/kg		10	ASTM D 5453
Nitrogen	% (m/m)		0.2	ASTM D 4629
Copper Corrosion	Rating		Class 1	ISO 2160
Distillation:				
At 70 °C	% (v/v)	22.0	50.0	ISO 3405
At 100 °C	% (v/v)	46.0	71.0	ISO 3405
At 150 °C	% (v/v)	75.0		ISO 3405
Final Boiling Point	°C		210.0	ISO 3405
Residue	% (v/v)		2.0	ISO 3405
Olefins(*)	% (v/v)		18.0	ISO 22854
Aromatics(*)	% (v/v)		35.0	ISO 22854
Total di-olefins	% m/m		1.0	GCMS/HPLC GCMS/HPLC
Appearance		clear and bright		visual inspection

All test methods include a precision statement. In cases of dispute, the procedures for resolving the dispute and interpretation of the results based on test method precision, described in ISO 4259, shall be used.

(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.

Compliance with the compositional regulation is calculated on the following basis:

A = 100 – B –C

where:

A is the total concentration (in % m/m) of individual hydrocarbon components present at concentrations less than 5 % m/m,

B is the total concentration (in % m/m) of oxygenates present in the fuel, and

C is the total concentration (in % m/m) of individual hydrocarbon components present at concentrations greater than 5% m/m.

The test method will be gas chromatography.

(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) Only the following oxygenates will be permitted:

Methanol, Ethanol, Iso-propyl alcohol, Iso-butyl alcohol, Methyl tertiary butyl ether, Ethyl tertiary butyl ether, Tertiary amyl methyl ether, Di-isopropyl ether, n-Propyl alcohol, Tertiary butyl alcohol, n-Butyl alcohol, Secondary butyl alcohol.

(e) Manganese (<1 mg/L), lead (<5 mg/L), iron (<5 mg/L) and nickel (<5 mg/L) additives are not permitted above these limits.

(f) In the Moto3 class, oil for engine lubrication will comply with the FIM Grand Prix Moto3 specification if it matches the reference Gas Chromatography fingerprint(s) for the official oil(s) of the relevant class, established by the appointed oil supplier.

(g) In the Moto3 class, the fuel and oil specification will be determined by the appointed fuel supplier and oil supplier in consultation with the Organisers and the official engine supplier and may be changed at any time by mutual agreement.

3. Moto3 class fuel and oil:

a) Only fuel 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.

b) Only engine oil from the appointed oil supplier is permitted. This oil will be available at all official events and will conform to the FIM Grand Prix specification for the relevant class. The use of the official oil without any addition or alteration is mandatory. The Technical Director may require that an oil sample be taken from any team or machine at any time.

5. Fuel and Oil Approval

1. All fuel in use in the Championship must be approved prior to the race in which the fuel is to be used. Fuel companies supplying petrol to participating teams must submit ten litres (2 x 5 L) to the laboratory appointed by the FIM/Dorna for analysis in accordance with the specification. Providing the petrol is within the specification, a certificate containing a test report number will be issued. The test report number must be given to the appropriate teams before they take part in a race.

2. All companies supplying oil, for engine lubrication in the Moto3 class, to participating teams must submit two litres (2 x 1 L) of the oil to the laboratory appointed by the FIM/Dorna for approval. If the oil conforms to the specifications, a certificate will be issued. The test report number given on the certificate must be supplied to teams which intend to use the oil.

3. During Thursday's technical control, each team will declare the certificate test report numbers corresponding to the petrol and oil to be used. This information will be entered in the Technical Control Book of each motorcycle at every Grand Prix.

   Therefore, the fuel which is to be used must be approved by the Thursday afternoon before the race in which the fuel is to be used.

4. When a fuel sample is requested at any Grand Prix Circuit, either during practice, warm up or following the race, the certificate test report numbers corresponding to the petrol and oil used must be declared to the Grand Prix Technical Director by the team. Failure to provide the correct number will result in a fine.

5. Each fuel and/or oil Company will be responsible for payment to the laboratory for these batch analyses costs and establishment of the basic fingerprints.

6. Fuel and Oil Sampling and Testing

   1. The Grand Prix Technical Director will appoint a senior Technical Scrutineer to take responsibility for the administration and supervision of the fuel sampling procedure.

   2. Motorcycles selected for fuel controls will usually be amongst the first three finishers, and will be directed to the "parc fermé" for technical controls.

   3. 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".

   4. 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.

   5. Only new bottles will be used for the fuel samples and only new materials will be used to transfer the fuel.

6. 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.

7. 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 petrol and oil using gas chromatography. 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 of the GC curve 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 FIM Grand Prix specification as described in Article 2.6.5.1.2

   Costs for the analyses of sample “A” will be paid by FIM/Dorna.

8. 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.

9. Both samples will be transported by an authorised courier.

10. The laboratory must deliver the results of the fuel sample analyses to the Grand Prix Technical Director, with a copy to the FIM, as soon as possible after receipt of the samples.

11. In the case of non-conformity, the Technical Director must notify, as soon as practical after receipt of the results, the FIM, the Grand Prix Race Direction 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 FIM and the Technical Director if counter-expertise is required (or not required) for sample “B”.

The Race Direction will take a decision at the Grand Prix 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 Grand Prix event at which the Race Direction decision is taken.

If there is no more Grand Prix 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 Race Direction will be heard by the FIM Stewards appointed by the FIM for this specific task.

12. 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.

13. Failure of the sample to comply to approved petrol and/or the addition of octane and power boosters, as described in Article 2.6.5.1.6.7, 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.

14. In the Moto3 class, the above fuel sampling and testing procedure will apply to engine oil also. In the case that the oil sample does not comply with the relevant specification as described in Art. 2.6.5.1.2.(f), the Technical Director will inform Race Direction who may impose a penalty.

7. Fuel Temperature

In the Moto3 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.

2.6.5.2 Protective Clothing and Helmets

1. Riders must wear a complete leather suit with additional leather padding or other protection on the principal contact points, knees, elbows, shoulders, hips etc.
2. Linings or undergarments must not be made of a synthetic material which might melt and cause damage to the riders' skin.
3. Riders must also wear leather gloves and boots, which with the suit provides complete coverage from the neck down.
4. Leather substitute materials may be used, providing they have been checked by the Chief Technical Scrutineer.
5. Use of a back protector is highly recommended.
6. Riders must wear a helmet which is in good condition, provides a good fit and is properly fastened.
7. Helmets must be of the full face type and conform to one of the recognised international standards:

   - Europe ECE 22-05 "P"
   - Japan JIS T 8133: 2007 (valid until 31.12.2015)
     JIS valid from 1.1.2013
   - USA SNELL M 2010 **(valid until 31.12.2019)**
     SNELL M 2015

   Refer to Appendix. Table 6 International Helmets Standards for details.

8. Visors must be made of a shatterproof material.
9. Disposable "tear-offs" are permitted.
10. Any question concerning the suitability or condition of the riders clothing and/or helmet shall be decided by the Technical Director, who may, if he so wishes, consult with the manufacturers of the product before making a final decision.

2.6.5.3 Procedures for Technical Control

1. At each circuit an area must be designated as the Technical Checking Area. In this area, under the control of the Chief Technical Scrutineer and the supervision of the Technical Director, suitable equipment will be installed to conduct the various tests viz:

   i) Equipment for measuring the noise of the motorcycle.

   ii) Weighing scales with check weights for calibration purposes.

   iii) Instruments for measuring engine capacity.

   iv) Instruments and gauges as necessary for measuring other dimensions and criteria specified in the Technical Regulations.

2. The technical control procedure will be carried out in accordance with the schedule set out in the Regulations. The technical scrutineers must be available throughout the event to check motorcycles and equipment as required by the Technical Director.

3. Presentation of a machine will be deemed as an implicit statement of conformity with the technical regulations. Responsibility for the preparation of the machine to comply with all technical and safety regulations rests with the team.

4. A rider's presence at the initial technical control is not mandatory, except in the case of the Moto3 class when the rider must be present for a weight check together with his helmet and all protective clothing.

5. Motorcycles will be inspected under the name of the team and at the initial technical control each motorcycle will be registered by the technical scrutineers who will prepare a technical control card to record technical specifications, check results and the riders in that team entitled to use the motorcycle.

6. At the initial technical control the technical scrutineers should inspect the motorcycle to record technical details including weight (plus rider weight in the Moto3 class), noise level and may also check the motorcycle for technical compliance with other aspects of the Regulations, as requested by the Technical Director.

8. At each event, at the conclusion of technical control procedures prior to the first practice, the technical scrutineers will place a small sticker on the motorcycle indicating that it has been registered for use by the team's rider(s) for that race and passed the technical control procedures.

9. The Chief Technical Scrutineer will prepare a report on the results of technical control which, will be submitted to the Event Management Committee via the Technical Director.

10. The technical scrutineers should re-inspect any machine that has been involved in an accident, and if necessary to issue a new technical control sticker for a rebuilt machine. This would normally be carried out at the pit of the rider concerned. The team has sole responsibility for any repairs carried out, and to determine when the machine is fit for further use.

11. The technical scrutineers must be available, based on instructions from the Technical Director, to re-inspect any motorcycle for technical compliance during the meeting or after the race and to supervise inspection of a motorcycle following a protest on a technical matter.

12. At the end of the race, the Chief Technical Scrutineer will ensure that the motorcycles placed in the first three positions, plus any other motorcycles designated by the Technical Director, are placed in the Check Area for a period of 60 minutes pending any protest.

    The motorcycles should be checked for compliance with the noise and weight regulations, and any other technical requirement, under the control of and as requested by the Technical Director

13. The Technical Director may require a team to provide such parts or samples as he may deem necessary.

2.6.5.4 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 levels at all times are:

Moto3: 115 dB/A

For convenience, the test may be conducted at a fixed RPM.

	1 cylinder	2 cylinders	3 cylinders	4 cylinders
Moto3	5,500 rpm	5’500 rpm	5’500 rpm	5’500 rpm

DIAGRAM 1

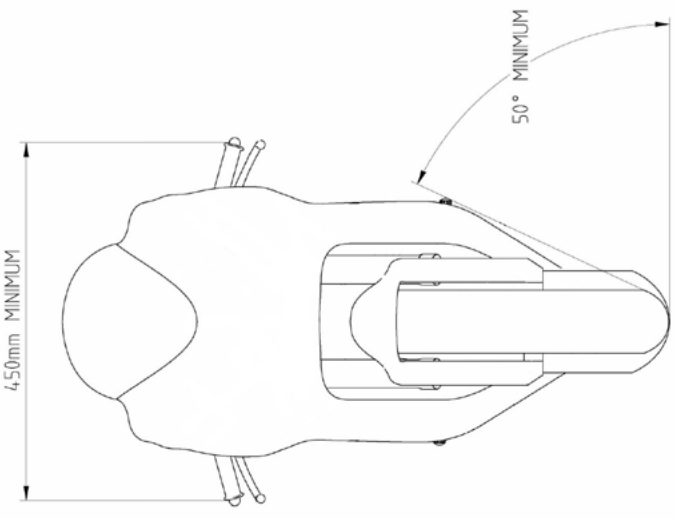


DIAGRAM 2

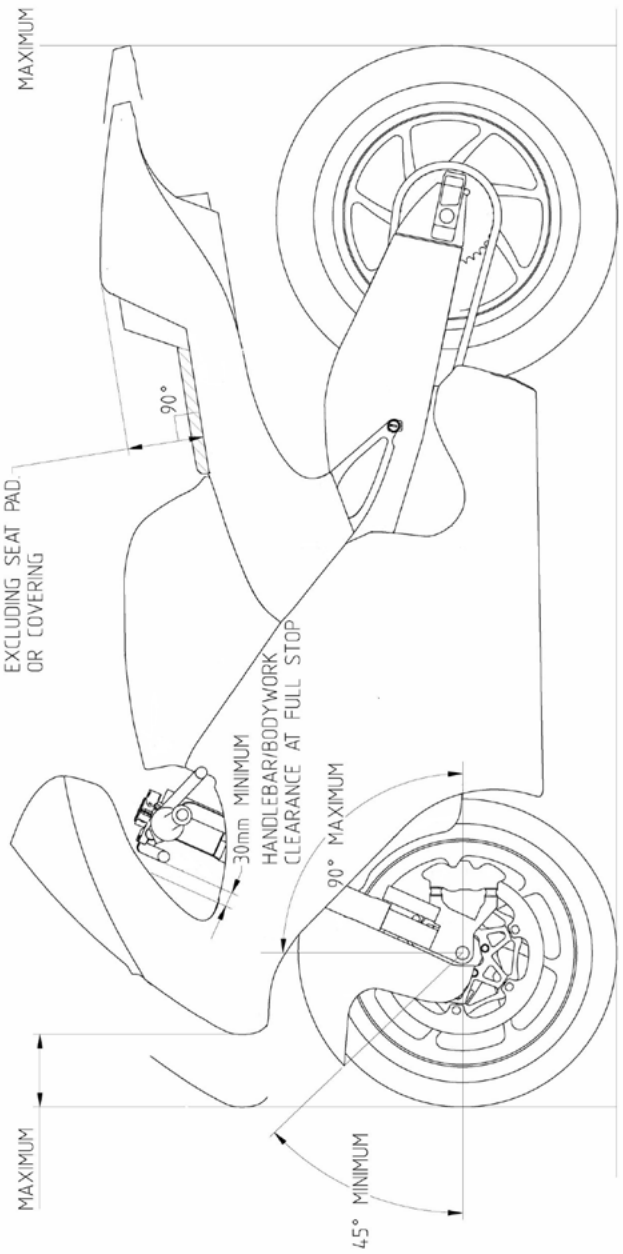


DIAGRAM 3

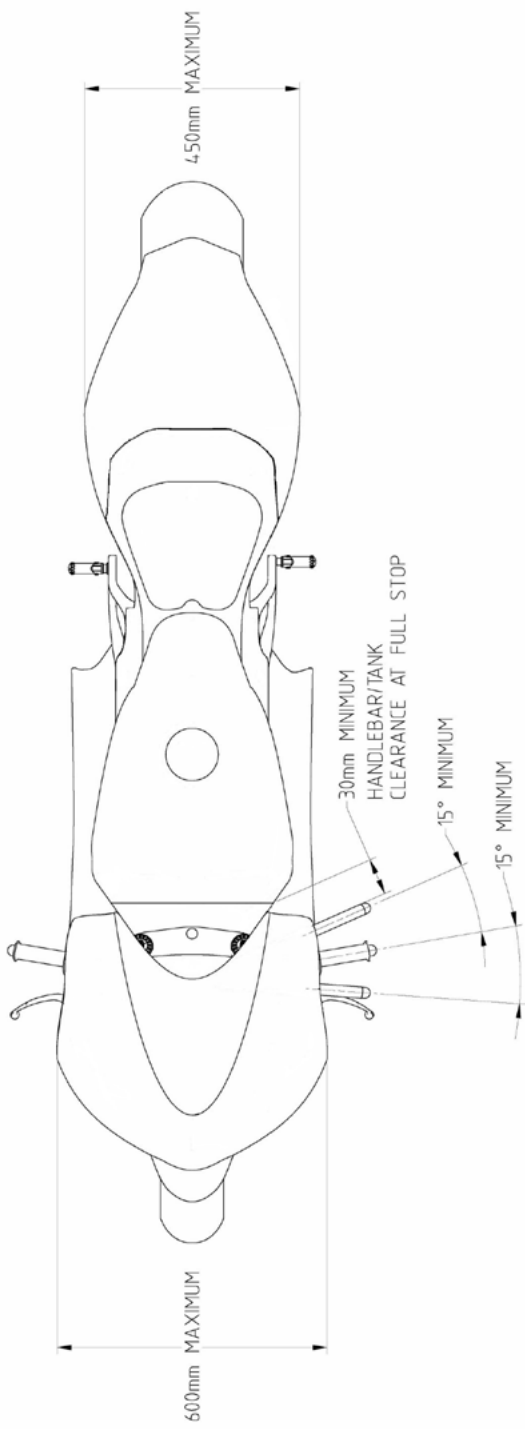


Diagram 4: Moto2 Airbox

The main airbox body, shown inside the line, must be original and is mandatory.

The intake duct ("intake connection to frame") may be replaced.

The resonance chambers on the airbox lid, including the top cover if required, may be replaced or modified.

Airbox volume, from the filter back, must not be more than the original.

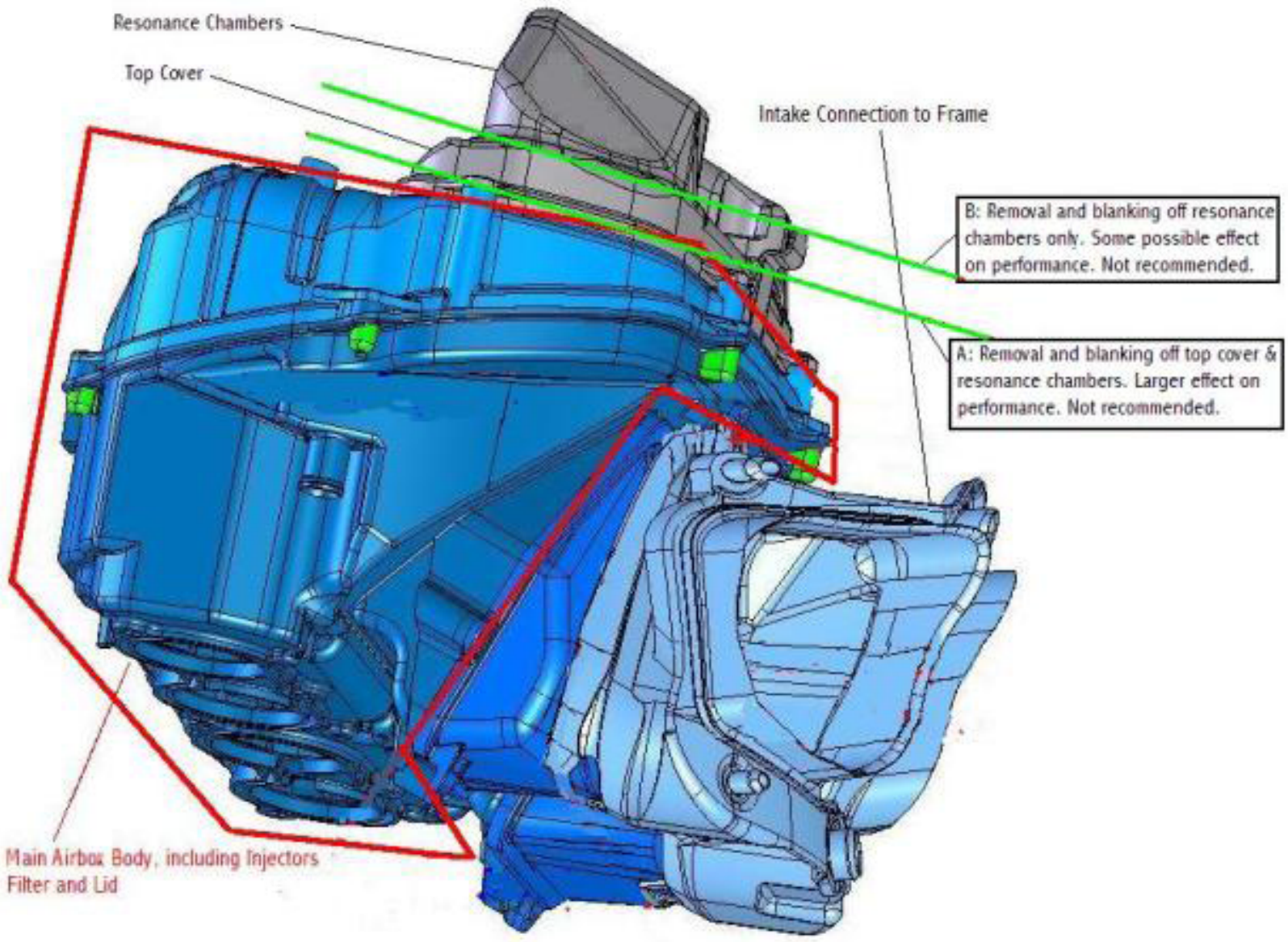


Diagram 5: Moto2 Air temperature sensor position

If a blanking cover is fitted on the airbox lid, the air temperature sensor should be fitted in the position as shown below. It must not come into contact with any other parts in the airbox, and must not be positioned closer (measured horizontally) to the secondary injectors than the standard position on the original cover (that is, it must not be behind the “32 mm” line shown below).

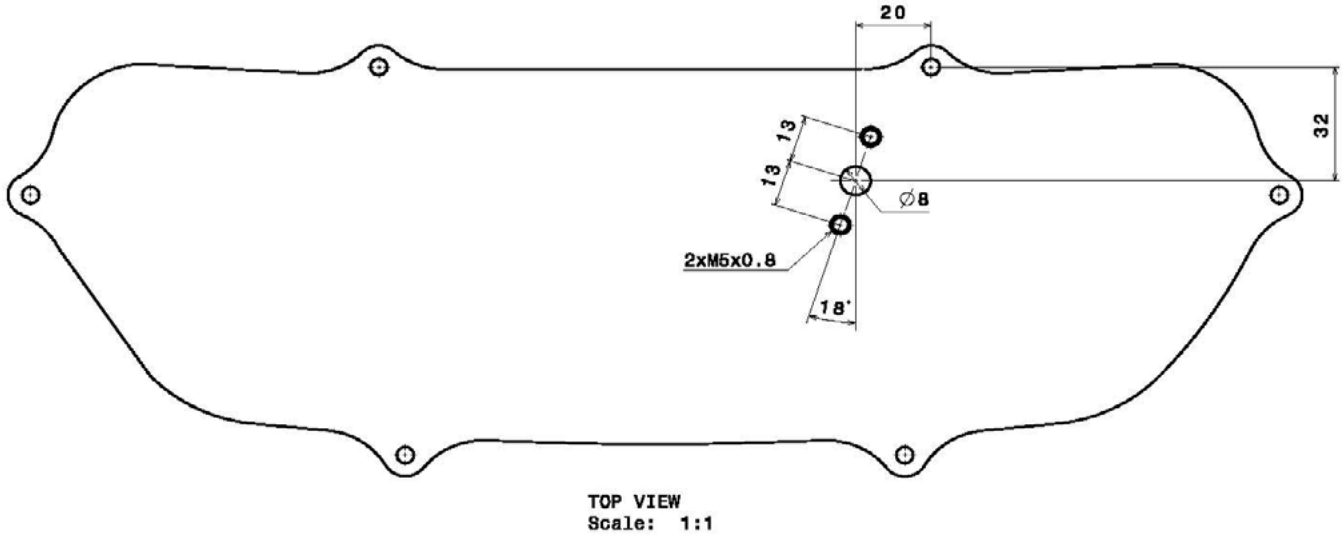


Diagram 6: Moto2 Recommended exhaust specification

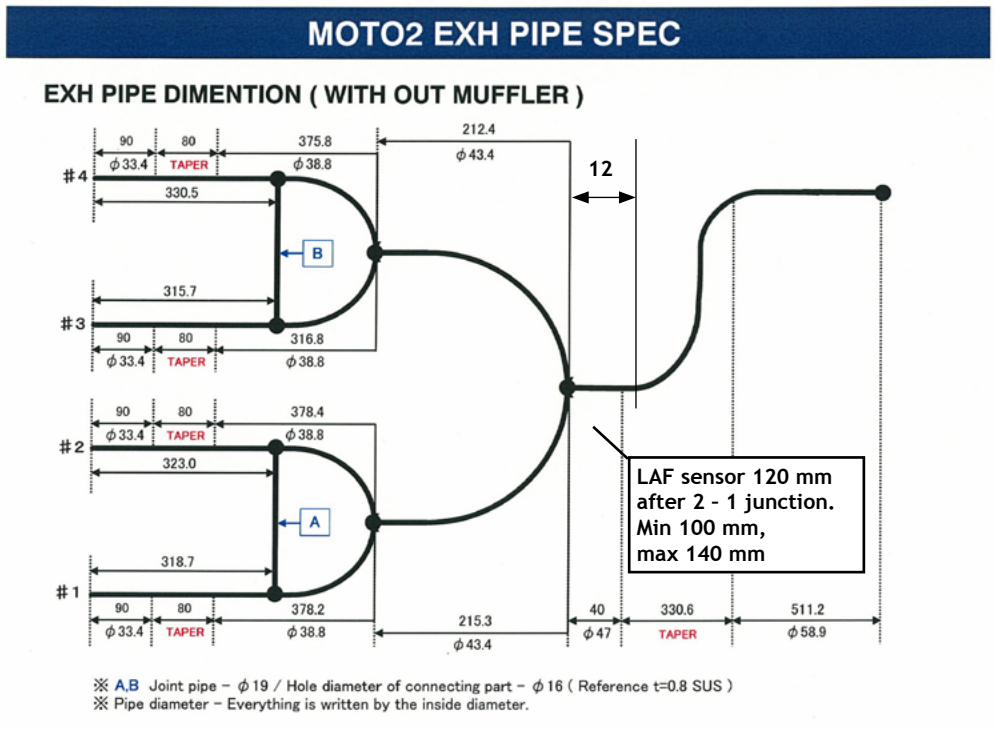


Table 1: Moto2 Datalogging Sensors permitted at official Moto2 events:

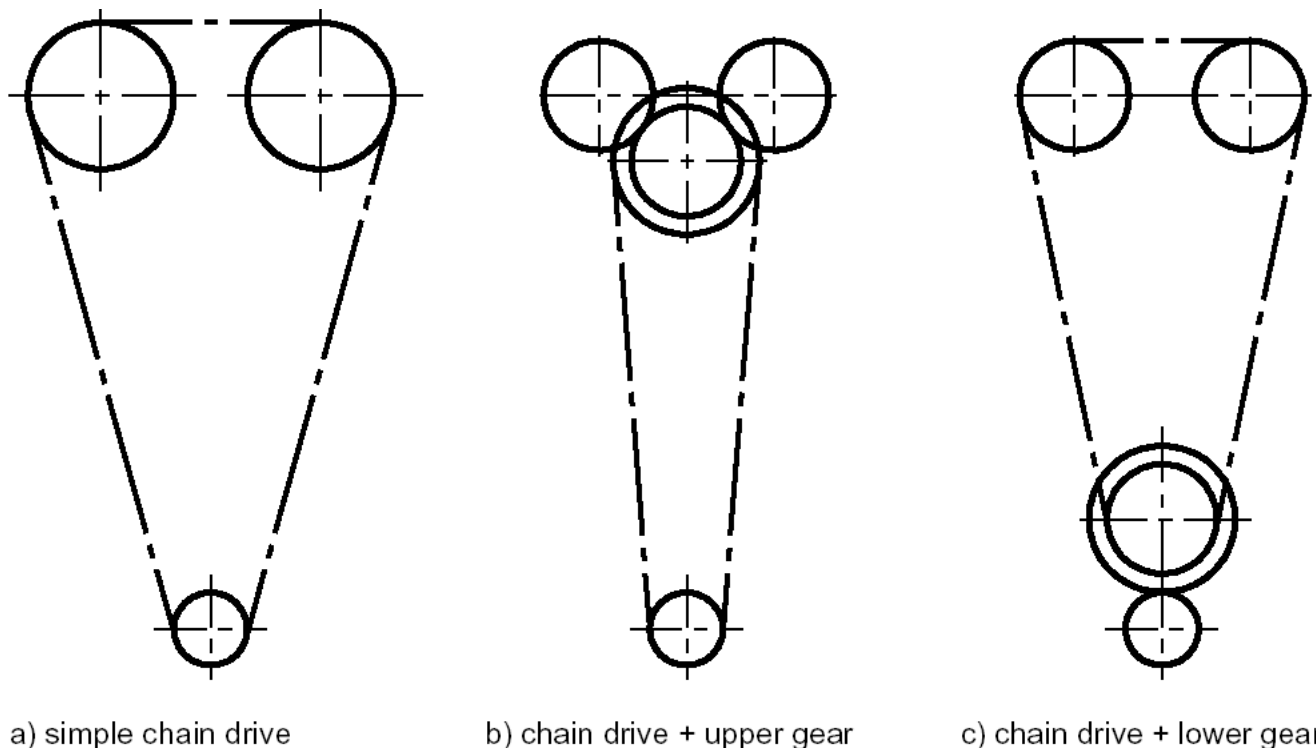
STANDARD CHANNELS (SUPPLIED AS MOTO2 KIT)	SENSOR
Front Wheel Speed	supplied in kit
Rear Wheel Speed	calculated from g/box
Front Suspension	supplied in kit, 150 mm
Rear Suspension	supplied in kit,75 or 100 mm
Front Brake Pressure	supplied in kit
Linear A/F (Lambda) Amplifier & ECU Input Module	supplied in kit
RPM	from engine
Throttle Position	signal from ECU
Water Temperature	signal from ECU
Manifold Pressure	signal from ECU
Air Temperature	signal from ECU
Oil Pressure Switch	signal from ECU
Error Report ECU	signal from ECU
Pitlane Speed Limiter	from ECU, Dashboard
Laptime	from Transponder
V_GPS	from 2D Moto2GPS
Bank Angle	from 2D Moto2GPS
Latitude	from 2D Moto2GPS
Longitude	from 2D Moto2GPS
Time	from 2D Moto2GPS
Vbattery	internal
Fuel Pressure	from sensor
OPTIONAL CHANNELS (user-defined sensors must be approved by Technical Director)	
Pressure Sensor (Oil/Fuel Pressure)	purchase sensor
Rear Brake Pressure	purchase sensor
Front Axle Accelerometer /or user-defined	purchase sensor
Rear Axle Accelerometer /or user-defined	purchase sensor
Gyro	purchase sensor
Tyre Pressure Sensor	purchase sensors, receiver
Pitch Calculation	supplied software, no charge
Suspension Speed	supplied software, no charge
V_Rear	supplied software, no charge
Additional 2D USB Memory Module	purchase module

Table 2: Moto2 Engine operating parameters:

Crankshaft speed	16,000 rpm maximum
Operating water temperature	60 - 80°C
Air/Fuel Ratio target range	13.5 - 12.8
Oil level	Start of practice/race: at maximum level mark
	At all times between minimum and maximum level marks
Oil pressure	Low oil pressure warning must be respected

Diagram 7: Moto3 Valve Timing Drive

Examples of permitted valve timing systems with a single chain as the principal drive mechanism (NB. general concept illustrations only, not an exhaustive list. Other layouts may be possible provided they comply with Article 2.6.3.1.12



a) simple chain drive

b) chain drive + upper gear

c) chain drive + lower gear

Table 3: Moto3 Compulsory Engine Management features

Ignition	Must be of the inductive type. Maximum ignition coil current must be less than 30 A
Throttle Position Sensor	Voltage output must be 0 – 5 V
Crankshaft Pickup Sensor	Must be of the inductive type. Voltage at 300 rpm must be at least 0.8 V, and maximum voltage less than 100 V
Camshaft Pickup Sensor (if any)	Must be of the Hall-effect type. “0” voltage must be less than 0.5 V, “1” voltage must be 4.5 V ± 0.5 V
Battery	Is compulsory. Must be in the 8 – 18 V range 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, http://www.dellorto-pe.com/

Table 4: Moto3 Recommended Engine Management features

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

UEGO O^2 Sensor	Bosch LSU 4.9
Knock Sensor	Bosch or NGK piezo-ceramic
Idle Speed Stepper Motor	Dell’Orto. Refer to website http://www.dellorto-pe.com/
Dashboard	Dell’Orto. Refer to website http://www.dellorto-pe.com/
Timing Option 1 Crankshaft Pickup only	Crankshaft timing pattern is “n-2” type, where “n” can be between 12 and 30. 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 30 teeth, and the camshaft timing pattern is one single tooth

Table 5: Moto3 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 Moto3 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 Moto3 engine manufacturers is available from the ECU supplier, upon completion of a non-disclosure agreement. Refer to the website: http://www.dellorto-pe.com/

For an engine design to be eligible for the Moto3 class, one of the following two options for the ECU start-up procedure must be followed:

OPTION 1 Initial Mapping and Set Up by ECU Supplier	Manufacturers will be guaranteed supply of the official ECU with initial maps to suit their engine before the first Moto3 official tests of the season, provided that:
By October 15th of the year preceding first entry in Moto3	1. the completed Moto3 Engine Manufacturer Entry Form is submitted to the organisers. (form available at http://www.fim-live.com/en/sport/official-documents-ccr/other-documents/) 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. 3. a deposit of 10,000 **€uros** is lodged with the official ECU supplier.

OPTION 2 Initial Mapping and Set Up by Engine Manufacturer	Engine Manufacturers can make an agreement with the ECU supplier to carry out their own Initial mapping procedure, with the following conditions:
At a schedule mutually agreed between ECU Supplier and Engine Manufacturer	1. the completed Moto3 Engine Manufacturer Entry Form is submitted to the organisers. (form available at http://www.fim-live.com/en/sport/official-documents-ccr/other-documents/) 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. 3. the organisers and the ECU supplier provide no guarantee of any completion date for the mapping process. 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 ECUSupplier.

Table 6: International Helmet Standards

ECE 22 - 05 "P" (EUROPE)
The ECE mark consists of a circle surrounding the letter E followed by the distinguishing number of the country which has granted approval.

E1 for Germany, **E2** for France, **E3** for Italy, **E4** for Netherlands, **E5** for Sweden, **E6** for Belgium, **E7** for Hungary, **E8** for Czeck Republic, **E9** for Spain, **E10** for Yugoslavia, **E11** for UK, **E12** for Austria, **E13** for Luxembourg, **E14** for Switzerland, **E15** (- vacant), **E16** for Norway, **E17** for Finland, **E18** for Denmark, **E19** for Roumania,**E20** for Poland, **E21** for Portugal, **E22** for the Russian Federation, **E23** for Greece, **E24** for Ireland, **E25** for Croatia, **E26** for Slovenia, **E27** for Slovakia, **E28** for Bielo Russia, **E29** for Estonia, **E30** (- vacant), **E31** for Bosnia and Herzegovina, **E32** for Letonie, **E34** for Bulgaria, **E37** for Turkey, **E40** for Macedonia, **E43** for Japan, **E44** (- vacant), **E45** for Australia, **E46** for Ukraine, **E47** for South Africa, **E48** New Zealand.

Below the letter **E**, the **approval** number should always begin with 05. Below the approval number is the serial production number. (Label on retention system or comfort interior).

(JAPAN) JIS

(USA) SNELL M2010

For more details consult the F.I.M. Technical Rulebook

Table 7: Dashboard Display Signals

The signals in the following Table may be transmitted by Race Direction using the Timekeeping transponder.

All machines must have a system approved by the Technical Director to clearly display these signals to the rider. Approval will only be given if the system complies with the following:

Separate signal light(s) dedicated for this purpose only must be used. Dashboard information lights used for another purpose may not be used to also convey Race Direction signals.

The signal light(s) must have adequate brightness and be located separately from existing dashboard signal lights, to ensure there is no confusion.

Text displays to convey the signal information are optional but strongly recommended.

SIGNAL	INFORMATION SENT TO TRANSPONDER
Red Flag	Sent to all bikes in all parts of the circuit
Black Flag	Sent to individual bike in all parts of the circuit
BlackFlag/Orange Disc	Sent to individual bike in all parts of the circuit
Change Position	Sent to individual bike in all parts of the circuit
Ride Through	Sent to individual bike in all parts of the circuit

Table 8: MotoGP Data Download Cable

MOTORSPORT | MAGNETI MARELLI

ECU-PC connector 1.0

Specifications of ECU-PC connector

Following table shows the main specifications of a connector will be requested on the bike system to permit DORNA/FIM/MMM people to have access ECU and other modules of DORNA Kit.

Connector bike side:

Deutsch AS0 10-35 SN (flange type)
or
Deutsch AS1 10-35 SN (in line type)

Connector PC side:

Deutsch AS6 10-35 PN (plug type)

Pin	Description
1	GND à to Jump Battery, if any
2	GND à to Jump Battery, if any
3	+12V à to Jump Battery, if any
4	+12V à to Jump Battery, if any
5	ENCP (global ENCP for all devices)
6	ETH_Rx_P
7	ETH_Rx_N
8	ETH_Tx_P
9	ETH_Tx_N
10	CAN1_P (CAN 1A of ECU)
11	CAN1_N
12	CAN2_P (CAN2A of ECU)
13	CAN2_N

On the PC side a switch must be provided to connect to ground the ENCP pin in case of software download will be required.

3. DISCIPLINARY AND ARBITRATION CODE

3.1 Principles

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.

3.2 Penalties

The penalties are:

- warnings
- **Grand Prix** penalty points
- fines
- change of position
- ride through
- 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.

Grand Prix Penalty points:	may be imposed by **GP** Race Direction on a rider in any number from 1 to 10, points are cumulative and expire after a period of 365 days from the date they were imposed. Automatic sanctions apply to a rider accumulating points as follows: 4 Points - Start the next race from last grid position. 7 Points - Start the next race from pit lane. 10 Points - Disqualification from participation at the next event (or from the race results if this occurs at the last event of the season). Points re-set to 0 after a rider reaches 10 points and serves a disqualification. **A penalty of up to 3 points can be imposed without a prior hearing being necessary.** **However, the right of protest remains as set out in Article 3.4.1.**
Fines:	cash penalty up to 50'000€ **A fine of up to 1'000 €uros can be imposed without a prior hearing being necessary.** **However, the right of protest remains as set out in Article 3.4.1.**
Change of position:	the rider must go back the number of positions decided by the Race Direction.
Ride through:	see Art. 1.19
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 at the rider's next race. **In the case of an infraction of Art. 1.21.2, a drop of up to 3 grid positions may be imposed without a prior hearing being necessary.** **However, the right of protest remains as set out in Article 3.4.1.**

Disqualification:	disqualification from an event, practice sessions (black flag, black flag with orange disc), race (black flag, black flag with orange disc) or from its results.
Withdrawal of championship points:	the loss of points from the Championship races already run.
Suspension:	the loss of rights to participate in the Championship may be applied to one or more races.
Exclusion:	the final and complete loss of all rights of participation in any activity under FIM 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

The disciplinary and arbitration bodies of the FIM, qualified to deal with disciplinary and arbitration matters, are:

- The Race Direction
- The FIM Stewards
- The International Disciplinary Court (CDI)

3.3.1 The Race Direction

3.3.1.1 Constitution

The Constitution of the Race Direction is in accordance with the requirements laid down in Article 1.6.

3.3.1.2 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.
- having been unable to ensure the smooth and efficient running of the event or for serious breaches of the Regulations.

The Race Direction is competent to adjudicate upon a protest relating to infringements of the Regulations.

3.3.1.3 Penalties that may be pronounced by the Race Direction

The following penalties may be pronounced by the Race Direction:

- a warning
- an imposition of penalty points
- a fine
- a change of position
- a ride through
- a time penalty
- a grid penalty
- a disqualification
- a withdrawal of Championship points
- a suspension

Furthermore, 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.

3.3.2 The FIM Stewards Panel

3.3.2.1 Constitution

The Constitution of the FIM Stewards Panel is in accordance with the requirements laid down in Article 1.7.

3.3.2.2 Competence

The FIM Stewards Panel will hear any appeals against decisions taken by the Race Direction.

3.3.2.3 Penalties that may be pronounced by the FIM Stewards Panel only following an appeal:

- a warning
- a fine
- a time penalty
- a grid penalty
- a disqualification
- a withdrawal of Championship points
- a suspension

Furthermore, the FIM Steward Panel can refer the case to the International Disciplinary Court (CDI) in order to impose a higher penalty than the FIM Stewards Panel is empowered to do.

3.3.3 The International Judicial Panel

The International Judicial Panel (CJI) is composed of qualified persons from which the members of the CDI are nominated.

3.3.3.1 Constitution

The International Judicial Panel shall consist of members nominated by FMNs. Each FMN may nominate one or several members having the nationality of that FMN. The appointments shall be confirmed by the General Assembly for 4-year periods.

3.3.3.2 Qualifications

In order to qualify for appointment to the International Judicial Panel, 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.

3.3.4 The International Disciplinary Court (CDI)

3.3.4.1 Appointment of the Members

The President of the International Judicial Panel of the FIM will appoint, each time, the President and the members who will constitute the CDI.

3.3.4.2 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, he must appoint the necessary replacements. Otherwise he rejects the objection and fixes the date for the hearing.

The court may request the opinion of an expert or summon a witness who it considers useful.

3.3.4.3 Authority and Competences

The CDI will hear any appeals against decisions taken by the FIM Stewards.

The CDI adjudicates upon request of the Race Direction or the FIM Steward Panel.

3.3.5 The FIM as a Party in the Legal Proceedings

3.3.5.1 Function

For all the appeals to the CDI, the FIM is entitled to assert its interests or to explain its position by means of a prosecution address.

3.3.5.2 Appointment

The Executive Board shall appoint in each case, the person who will represent the FIM.

3.3.5.3 Procedure

The intervention of the FIM is optional and is left to the appreciation of the Executive Board.

As a party, the FIM enjoys the same rights and obligations as the other parties.

The FIM may be present in person at a hearing or may present its claims in writing.

3.4 Protests and Appeals

3.4.1 Right of protest

Any legal entity or any individual, rider, team, manufacturer, official etc. affected by a decision taken under the authority of the FIM, has the right to protest against that decision.

No protest may be lodged against a decision of the Race Direction entailing or not:

- a change of position.
- a ride through.
- a disqualification from the practice sessions or races by means of a black flag or black flag with orange disc.
- a fine for speeding in the pit lane.

No protest may be lodged against a decision of the Race Direction based on a photo finish.

3.4.2 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 entailing or not:

   - a change of position
   - a ride through
   - a disqualification from the practice sessions or races by means of a black flag or black flag with orange disc.
   - a fine for speeding in the pit lane

   No appeal may be lodged against a decision based on a photo finish.

   When no appeal may be lodged the decision of the Race Direction is final.

2. To the CDI against a decision of the FIM Stewards. The decision of the CDI is final.

   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 entailing or not:

   - a change of position
   - a ride through
   - a disqualification from the practice sessions or races by means of a black flag or black flag with orange disc
   - a fine for speeding in the pit lane

   No appeal may be lodged against a decision based on a photo finish.

3.4.3 Procedure and time limit for protests

All protests must be submitted and signed only by the person directly concerned. Each protest must refer to a single subject only and the intention to protest must be notified to Race Direction or to IRTA within 30 minutes of the publication of the results **in the case of Sporting Regulation protests,**

and before the chequered flag of the session in the case of Technical Regulation protests. The protest must then be confirmed in writing or withdrawn within 1 hour at the latest after the publication of the results. Protests must be handed to a responsible official (Clerk of the Course, Race Director or Secretary of the Meeting) together with the security deposit of 660 **€uros** or equivalent.

Teams and riders contracted to compete in the Championship may submit a letter of guarantee from IRTA in lieu of payment.

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 machine on technical control compliance grounds (eg. weight, noise, materials, etc.) may be made after the start of official practice**, and must be informed to Race Direction or IRTA before the chequered flag of the practice session or race concerned**.

3.4.4 Hearing of a protest

After a 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.

3.4.5 Effect of the decision upon a protest

The decision of the Race Direction of determination of penalty is immediate.

3.4.6 Time limits for the lodging of an appeal

The time limit for lodging a statement of appeal is:

against a decision of the Race Direction	- 30 Minutes
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.

3.4.7 Lodging of an appeal

To be admissible, the statement of appeal must be submitted by letter (appeal before the FIM Stewards) or sent by registered letter or special courier to the FIM Executive Secretariat and postmarked (appeal before the CDI).

The correct security deposit for appeal must be handed to the FIM Chief Steward (appeal before the FIM Stewards) or paid in to the FIM Executive Secretariat (appeal before the CDI), as the case may be.

Within 10 days following the statement of appeal before the CDI, the appellant assigns to the FIM Executive 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 article 3.4.6, the appeal will be declared inadmissible without hearing.

3.4.7.1 Security deposit for appeals

The amount of the security deposit is 1'320 **€uros**.

Teams and riders contracted to compete in the Championships may submit a letter of guarantee from IRTA in lieu of payment.

3.4.7.2 Security deposit payable upon an adjournment

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 within the time limit, the disciplinary body will make a determination on the appeal based on the evidence of the original witness.

3.4.7.3 Time limits to be observed for appeal hearings

The FIM Stewards must be convened to examine an appeal immediately after the brief of appeal is received.

The CDI must be convened to examine an appeal not later than 6 weeks after the brief of appeal is received.

The FIM Stewards and the CDI must in all cases pronounce a decision.

3.4.8 Effect of an appeal

On request of the appellant, the FIM Stewards Panel may decide a stay of the provisional execution adjudicated by the Race Direction by injunction or in its decision.

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

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

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 President has opened the proceedings, he 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 President's approval, question any of the parties involved, the witnesses and experts.

3.5.3 Witnesses and Experts

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

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

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.

All judgements of the International Disciplinary Court (CDI) must be notified, in writing, by registered letter with acknowledgement of receipt in order to inform all the parties concerned.

3.5.6 Publication of judgements

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 nor against any person having published the statement.

Furthermore, final decisions will be published in the Media Centre and in the FIM Magazine unless the Court itself decides otherwise.

3.6 Costs of procedure

The costs of a disciplinary or arbitration decision will be assessed by the FIM Executive Secretariat and will be awarded against the losing party, unless the Court decides otherwise.

3.6.1 Payment of fines and costs

If the penalty is definitive, all fines must be paid into the Benevolent Fund before the beginning of the first practice of the second Grand Prix following the final decision. The costs must be paid to the FIM Executive Secretariat within 30 days of notification of the judgement decision according to Article 3.5.5.

The person or body affected by the decision shall be automatically suspended from participation in all FIM activities, until such time as full payment has been received.

3.7 Reciprocity of penalties

As a consequence of the agreement of reciprocity concluded on April 30th, 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

The Management Council, after consultation with the CJI President 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

Final decisions made by the disciplinary bodies (exception art. 3.4.2.3) or the General Assembly of the FIM may be submitted exclusively to the Court of Arbitration for Sport by way of appeal within the time limit as laid down in article 3.4.6, which shall have exclusive authority to impose a definitive settlement in accordance with the Code of Arbitration applicable to sport.

4. CIRCUIT STANDARDS

Circuit standards will be defined by the “FIM Standards for Road Racing Circuits” (SRRC).

5. MEDICAL CODE

5.1 INTRODUCTION

The new FIM Anti-Doping Code (included in this rule book) came into force on 1 July 2004.

5.2 SPECIAL MEDICAL EXAMINATION

At any time during an event a special medical examination may be carried out by an official doctor or by another doctor nominated by the Chief Medical Officer (CMO) at the request of the Race Director or Medical Director.

5.2.1 Refusal to undergo Special Medical Examination

Any rider who refuses to submit himself to such special medical examination must be excluded from the event, and his case notified to the FIM.

5.2.2 List of medically Unfit Riders

The CMO shall examine all riders listed as medically unfit who wish to compete in order to assess their medical fitness to do so the day before they use a motorcycle on the track. The list shall be supplied by the Medical Director who may attend this examination.

5.2.3 Riders with Special Medical Requirements

Riders with certain medical conditions and who may require special treatment in the event of injury, or who have been in hospital during the previous 12 months or who are being treated for any medical conditions are responsible for informing the Medical Director/CMO before the event that they may require such special treatment.

5.3 MEDICAL SERVICES AT EVENTS

Any treatment at the circuit during an event is free of charge to the riders.

Medical services must guarantee assistance to all riders as well as any other authorised persons injured or taken ill at the circuit during event.

A medical service for the public, separate from the above services must be provided by the event organisers. This service is not described in this code but must conform to any regulation enforced by the relevant country and reflect the size of crowd expected.

Both medical services must be controlled by a single CMO.

Adequate medical services should be available continuously, from at least 08.00 hrs. on the day the paddock opens for the teams, until at least 20.00 hrs. on the race day.

5.3.1 Terms of reference of the CMO:

The CMO:

- Is holder of the corresponding FIM official's licence.
- Is appointed by the FMNR/Organiser.
- Should be the same throughout the event.
- Must be able to communicate in at least one of the FIM official languages, either English or French.
- Should be familiar with the FIM Medical Code and FIM Anti- Doping Code.
- Must be named in the event information.
- Must be a fully registered medical practitioner authorised to practice in the relevant country or state in which the event is taking place.
- Must have malpractice insurance appropriate to the relevant country or state, where the event is being held.
- Must be familiar with the principles of emergency medical care and the associated organisational requirements necessary for a circuit medical service to deliver effective emergency medical interventions to injured riders in keeping with current accepted best practice
- Is responsible for the positioning of medical and paramedical personnel and vehicles under his control.
- Must brief the medical personnel prior to the start of the first practice session of the event, as well as debrief the staff after the event.
    - This briefing should include practical scenario-based examples of incident responses
    - Scenario-based demonstration and training in the initial response to and management of an injured rider should take place on the day before the event and be attended by the CMO, Medical Director and the FIM Medical Representative

Must provide the Medical Director and FIM Medical Representative with a circuit map showing the position of the medical personnel and vehicles.

- Must with the Medical Director and FIM Medical Representative inspect all medical services not less than 30 minutes before the start of practice and racing each day of the event to ensure that all services and staff are in their correct place and ready to function, including the Medical Centre.
- Must inform and update the Medical Director and the Race Director regarding the condition of injured riders and liaise with the relevant hospitals to ascertain and report the progress of their condition and treatment .
- Will prepare a list of injured riders (MEDICALLY UNFIT LIST) to be given to the Medical Director and FIM Medical Representative.
- Shall ascertain that fallen riders during practice are medically fit to continue in competition. All riders injured during an event who avoid a Medical examination must be placed on the medically unfit list.
- Can recommend to the Race Director/Clerk of the Course that a race be stopped if:
  - There is danger to life or of further injury to a rider or officials attending that rider if other riders continue to circulate.
  - There is a risk of physiological damage to riders or of inability by riders to control their machines, due to extreme weather conditions.
  - The Medical personnel are unable to reach or treat a rider for any reason.
- Must be stationed in race control, whenever bikes are on the track.

- When bikes are on the track the CMO;
  - must be stationed in race control
  - be in close proximity to and liaise directly with the Medical Director, FIM Medical Director, Clerk of the Course and Race Director
  - be in direct communication with the medical ground posts, ambulances, medical cars and medical centre at all times
  - provide immediate updates from trackside medical personnel to the Medical Director and Race Direction regarding the condition of any injured rider in order to facilitate the most appropriate medical response to their condition
  - participate with the Medical Director and Race Direction in the immediate deployment of appropriate medical resources to injured riders
- Must complete the FIM CIRCUIT CMO QUESTIONNAIRE (Appendix F) and return it to the FIM at least 60 days prior to the event. The Circuit CMO Questionnaire must be accompanied by;
  - A plan of the medical service including the position and number of all of the medical resources
  - A plan of the circuit medical centre
  - A map showing the location, distances and routes to the designated hospitals
  - A list of the doctors including a brief professional curriculum vitae of their experience and qualification relevant to the provision of out of hospital emergency medical care (see appendix T). This should be presented at the latest on the day before the event following the initial track safety inspection.

Must contact, in writing, at least 60 days before the event, hospitals in the vicinity of the event that are able to provide the following specialist services:

- Trauma resuscitation
- Neurosurgery
- General surgery
- Vascular surgery
- Trauma and Orthopaedic surgery
- Cardio-Thoracic surgery
- Intensive Care
- Burns and plastic surgery

- Must send copies to the Medical Director and to the FIM at least 30 days before the event by FAX or E-MAIL of the letters they have written to the hospitals and copies of the letters of confirmation that every hospital to be used for treatment of injured persons is aware that the event is taking place and, is prepared to accept and treat injured riders with minimum delay. The letter of confirmation of every hospital must mention its equipment (x-ray, scanner etc..) the name (and telephone numbers) of the doctor in charge for each day and a map showing the shortest way from the circuit to the hospital. Any change to the above mentioned information must be immediately forwarded to the Medical Director and to the FIM.

  An interpreter in English must be available in the hospital permanently when an injured rider is there.

- Must make every effort to ensure that a rider may be released from the hospital when he wishes by signing an official self discharge form.
- May attend the meetings of the Event Management Committee meetings.

5.3.2 Medical Director

The Medical Director will be appointed by the Contractual Partner.

His duties shall be:

- To ensure that all aspects of the medical service including the local medical service, the GP Medical Team and the Clinica Mobile are to the required standards.
- To be able to communicate at all times with all elements of the medical service in order to be fully informed of any medical issues.

- To receive from the CMO a copy of the medical plan as agreed during the FIM Medical Homologation and to ensure that the facilities comply with it.
- To Inspect the circuit with the CMO the day before the first practice session. A further check will be made no later than 30 minutes before each days practice session or race to ensure that medical facilities are in accordance with this code, and to report any shortcomings to the Race Director, FIM Safety Officer, FIM Medical Representative and CMO.
- To ensure in collaboration with the FIM Medical Representative and CMO that all necessary steps are taken to address any deficiencies in the medical plan or performance of the medical responses.
- To be present in Race Control when bikes are on the track to observe the performance of the medical responses and to direct and advise the CMO and Race direction accordingly
- To inform the Race Director in consultation with the CMO of any situations where it may be necessary to stop the event in order to deploy the medical intervention vehicles
- To in conjunction with the CMO ensure that the intervention in the event of an injured rider is adequate, timely and appropriate
- To obtain from the CMO at the end of each practice session or race a list of fallen riders and to ensure that the list of medically unfit riders held by the CMO is up to date to ensure medically unfit riders are not allowed on the circuit.
- To examine participate as necessary with the CMO and the FIM Medical Representative in decisions regarding riders who have been injured and who wish to compete and there is uncertainty as their medical fitness to do so.
- To attend Event Management Committee meetings.
- To assist the FIM Medical Representative in ensuring the requirements of the FIM Medical code are met
- To receive from the CMO the List of Medically Unfit riders and forward it to the CMO of the next event

5.3.3 FIM Medical Representative

The FIM Medical Representative at an event will be a member of the FIM Medical Commission.

The duties of the FIM Medical Representative will be:

- To represent and be responsible to the FIM and the FIM International Medical Commission
- To undertake as required medical inspections for the FIM Medical Homologation of the circuit and to make relevant recommendations accordingly
- To visit the designated hospital for a first event or if there is a change in the designated hospital to ensure the services provided are in accordance with the FIM Medical Code
- To receive and review the CMO Medical Questionnaire in advance of the event to confirm it is in compliance with the FIM Medical Homologation and the FIM Medical Code
- To ensure the medical service provision is in accordance with the requirements of the FIM Medical Code
- To observe and advise the application of the FIM Medical Code and make recommendations accordingly.
- To inform the Chief Steward, the FIM Medical Commission, the Medical Director and if necessary the Race Direction of any medical arrangement that contravenes the FIM Medical Code.
- To participate with the Medical Director and CMO in the daily inspections of the track to ensure that medical facilities are in accordance with and to report any shortcomings to the Race Director, FIM Safety Officer, FIM Medical Representative and CMO.
- To ensure in collaboration with the Medical Director and CMO the response of the medical service is fit for purpose and to the required standard on the track and in the medical centre through direct observation and in Race Control
- To ensure in collaboration with the Medical Director and CMO that all necessary steps are taken to address any deficiencies in the medical plan or performance of the medical responses.

- To in conjunction with the Medical Director and CMO ensure that the intervention in the event of an injured rider is adequate, timely and appropriate
- To assist the Medical Director in ensuring the medical service provision is to the required operational standard
- To participate as necessary with the CMO and the Medical Director in decisions regarding riders who have been injured and who wish to compete and there is uncertainty as to their medical fitness to do so.
- To attend Event Management Committee meetings.
- To provide a full report to the FIM regarding the performance of the medical service and the status of the medical homologation with if necessary any recommendations required for improvement.

5.3.4 Other Doctors

Any injured rider must first be seen and assessed by the official event medical personnel for emergency treatment and be declared medically fit or unfit to compete as appropriate. He may then attend any other doctor of his choice. If the CMO advises against this, the rider must sign a declaration that he is seeking other advice and treatment.

Any rider, who, after treatment by a doctor not part of the event team, wishes to compete, must first obtain authorisation for this from the CMO of the event or his deputy, who should consider any recommendation by the doctor treating him.

5.3.5 FIM Road Racing World Championship GP Medical Team

In order to ensure consistency and familiarity at each FIM Road Racing World Championship event a small team of doctors experienced in the management of significant trauma from the Hospital Universitari Quirón Dexeus in Barcelona has been engaged by the FIM Contractual Partner and Promoter Dorna to support, advise, supplement and assist the medical service provided locally by the circuit CMO. Their role will be in support of the provision of immediate trackside medical assistance in the event of serious injury until transfer to the medical centre or hospital.

A doctor from this team will be present in each of the two vehicles type A (medical intervention vehicles) provided by the promoter to accompany and work with the local medical personnel. This team of doctors who will be present at every event will not replace the local medical personnel but will

work together with them and where necessary provide assistance, support and advice. It is expected that the CMO and their medical teams will work collaboratively with them to ensure consistency and the highest standards of medical care to riders at all events.

The GP Medical Team will be present from and will liaise with the CMO and the doctors who will be deployed in the medical cars on the day before the event and participate in medical briefings and any training or demonstration scenarios as necessary and appropriate.

The deployment of the medical rapid intervention vehicles will be by the Race Director in the event of a Red Flag situation when the race or practice session is stopped on the recommendation of and in consultation with the CMO, Medical Director and the Clerk of the Course depending on the circuit, the nature and location of the incident.

5.3.6 CLINICA MOBILE

For many years the CLINICA MOBILE, or its personnel, under the direction of Dr. Claudio Costa, has attended Grand Prix events and has gained a considerable reputation among riders and support staff.

The CLINICA MOBILE has X-ray and treatment facilities and its staff have considerable experience in treating riders' injuries and illness. Many riders prefer treatment by the CLINICA MOBILE staff to treatment by others. The parties involved in the Championship fully support the CLINICA MOBILE staff and the CLINICA MOBILE will be in attendance at events with the full co-operation of event organisers and CMOs.

The CLINICA MOBILE staff will treat those riders who wish to be treated by them only after they have been seen by the CMO. The CMO should declare riders medically fit or unfit as normal, after which they may go to the CLINICA MOBILE if they wish. The CLINICA MOBILE staff will give a medical report to the CMO after assessment and treatment. A rider who has been declared medically unfit to race, who after treatment by the CLINICA MOBILE staff then wishes to race, must present himself back to the CMO for re-examination.

A rider who prefers treatment by the CLINICA MOBILE staff when advised by the CMO otherwise is entitled to take his own course of action, but should sign a form indicating it was against local medical advice. If the rider decides he wishes to be treated in a hospital of his own choice, the CMO, using the means at his disposal at the circuit (ambulance, helicopter, etc.)

must allow the rider to reach such hospital: i.e. the rider must be allowed to be transported by ambulance or helicopter from the circuit to the nearest airport.

In case of transfer to the hospital a doctor of the CLINICA MOBILE will accompany the rider.

5.3.7 Qualification of medical personnel

5.3.7.1 Qualification of doctors

Any doctor participating at an event:

- must be a fully registered medical practitioner.
- authorised to practice in the relevant country or state.
- qualified in and able to carry out emergency treatment and resuscitation.

5.3.7.2 Qualification of paramedics or equivalent

Any paramedic or equivalent participating at an event:

- must be fully qualified and registered as required by the relevant country or state.
- must be experienced in emergency care.

5.3.7.3 Identification of medical personnel

All medical personnel must be clearly identified.

All doctors and paramedics must wear a garment clearly marked with “DOCTOR” or “DOCTEUR” and “MEDICAL” respectively, preferably in red on a white background on the back and on the front.

5.3.8 Vehicles

5.3.8.1 Definition of Vehicles

Vehicles are defined as follow:

Type A: A vehicle for rapid intervention at accident areas to give the injured immediate assistance for respiratory and cardio-circulatory resuscitation.

This vehicle should have “MEDICAL” clearly marked on it in large letters.

Type B: A highly specialised vehicle that can serve as a mobile resuscitation centre.

Type C: A vehicle capable of carrying a stretcher with an injured person in reasonable conditions.

5.3.9 Medical Equipment

5.3.9.1 Minimum medical requirements for events

The medical service comprising of equipment, vehicles and personnel must be organised in such a way and in sufficient number to ensure that an injured rider can be provided with appropriate and all necessary emergency treatment with the minimum of delay and to facilitate their rapid transfer to further medical treatment in an appropriately equipped medical centre or definitive medical care in a hospital with the necessary facilities to deal with their injuries or illness should this be required.

The CMO will therefore determine the number, location and type of vehicles, helicopter, equipment and personnel that are required to achieve this for a specific event taking into consideration the circuit, event location.

The minimum medical requirements will be subject to confirmation and agreement following inspection and review by the FIM Medical Representative and Medical Director.

A doctor or doctors must be available to provide initial medical intervention directly or following initial assessment and treatment by the paramedic teams.

In all cases, the transfer of an injured rider to a medical centre or hospital either by ambulance or by helicopter must not interfere with the event and the CMO must plan to have sufficient replacement equipment available to allow the event to continue.

- Vehicles type A (number and position as per the FIM medical homologation) are to be placed in such a way and in such numbers that a fallen rider can be reached by them within 2 minutes from their deployment by Race Control.
- Two GP Medical Team vehicles (type A) will be provided by the promoter and must be placed in such a way that a fallen rider can be reached by them within 2 minutes from their deployment by Race Control. One of the GP Medical Team vehicles will be positioned in the pit lane.

- Vehicle(s) type B (number and position as per the FIM Medical Homologation) are to be placed in such a way that a fallen rider can be reached and transported with minimum delay after coming to rest with ongoing treatment being provided during transport.
- Vehicle(s) type C (number as per the FIM Medical Homologation) are to be placed in such a way that a fallen rider can be transported with minimum delay after coming to rest only if no treatment is required.
- Medical Ground posts (number and position as per FIM Medical
- Homologation) are to be placed in such a way that a fallen rider can be reached and initial assessment and treatment commenced with minimum of delay
- Pit lane ground post
- A medical centre
- A helicopter

N.B. the only replacement allowed to these requirements is a vehicle Type B may replace a vehicle Type C

5.3.9.2. Equipment for Vehicle Type A (Medical Rapid Intervention Vehicle)

Personnel:

Type A1:

- a driver, experienced in driving the Type A vehicle and familiar with the course
- a doctor experienced in emergency care
- a second doctor or paramedic, experienced in emergency care

Type A2:

- a driver, experienced in driving the Type A vehicle and familiar with the course
- paramedics (or equivalent) experienced in emergency care

Medical Equipment:

- Portable oxygen supply
- Manual ventilator
- Intubation equipment
- Suction equipment
- Intravenous infusion equipment
- Equipment to immobilise limbs and spine (including cervical spine)
- Sterile dressings
- ECG monitor and Defibrillator
- Drugs for resuscitation and analgesia/IV fluids
- Sphygmomanometer and stethoscope

Equipment should be easily identified and stored in such a way that it can be used at ground level at the trackside.

Technical:

- Radio communication with Race Control and the CMO
- Visible and audible signals
- Equipment to remove suits and helmets

The minimum number of medical rapid intervention vehicles is 2.

5.3.9.3 GP Medical Team vehicles (type A)

Personnel:

- A doctor from the GP Medical Team as designated by the FIM or Dorna
- A doctor from the local medical service who is a fully registered medical practitioner authorised to practice in the relevant country or state in which the event is taking place and who is qualified and experienced in resuscitation and in the pre-hospital management of significant trauma.
- A professional driver, suitably experienced in driving the vehicle and familiar with the course will be provided by the promoter

- A paramedic (or equivalent), experienced in pre-hospital emergency care
- At least one of the personnel should be proficient in the English language

Medical equipment:

- Portable oxygen supply
- Basic and Advanced Airway Management including intubation and surgical airway interventions
- Suction equipment
- Manual ventilator such as BVM and associated equipment
- Equipment for chest decompression
- Equipment for vascular access, infusion, circulatory support and haemorrhage control
- Cardiac Monitor and Defibrillator
- Blood pressure monitoring equipment
- Equipment to immobilise limbs and spine (including cervical spine)
- Sterile dressings
- Drugs for resuscitation, intubation and anaesthesia sedation and analgesia /IV fluids
- Equipment to remove race suits and helmets

A full range of medical equipment for the GP Medical Team Vehicles (type A) will normally be provided by the promoter. The provision of necessary medications will be the responsibility of the local medical service. It is accepted that the doctor from the local medical service working in the vehicle may wish to use their own personal portable medical bag.

Equipment should be easily identified, portable and stored in such a way that it can be used at ground level at the trackside.

The equipment must be presented for review and familiarisation on Thursday afternoon following the track safety inspection

(See Appendix S for detailed list of medical equipment)

Technical equipment:

- Radio communication with Race Control, the CMO and Medical Director
- Visible and audible signals

5.3.9.4 Deployment and role of the GP Medical Team

In the event of a Red Flag situation when the race or practice session is stopped on the recommendation of and in consultation with the CMO, Medical Director and the Clerk of the Course depending on the circuit, the nature and location of the incident the GP Medical Team Vehicles will be deployed by the Race Director.

Such incidents for which the GP Medical Team vehicles will be deployed to support the trackside medical teams include:

When it is confirmed by radio and CCTV to the CMO & Medical Director that:

- the rider is unconscious,
- a spinal injury is suspected
- the rider is otherwise seriously injured
- the rider requires immobilisation and/or stabilisation before being moved
- the rescue will take longer than 3 minutes
- medical intervention is required on track

Following their arrival at the incident, if required to support the trackside medical team, the medical interventions will be made jointly by the doctors in accordance with the authorization to practice in the country or state where the event is taking place. The doctor from the GP Medical Team, as designated by the FIM or Dorna, will assume the role of team leader with responsibility for the management of the incident at the scene and will provide advice and support if necessary.

5.3.9.5 Equipment for Vehicle Type B

Personnel:

Type B1:

- A doctor experienced in emergency care
- Type B2:
- Two paramedics or equivalent experienced in emergency care

Medical Equipment:

- Portable oxygen supply
- Manual and an automatic ventilator
- Intubation equipment
- Suction equipment
- Intravenous infusion equipment
- Equipment to immobilise limbs and spine (including cervical spine)
- Sterile dressings
- Thoracic drainage equipment
- Tracheotomy equipment`
- Sphygmomanometer and stethoscope
- Stretcher
- Scoop stretcher
- ECG monitor and defibrillator
- Pulse oximeter
- Drugs for resuscitation and analgesia/IV fluids

Technical

- Radio communication with Race Control and the CMO
- Visible and audible signals
- Equipment to remove suits and helmets
- Air conditioning and refrigerator are recommended

1 such ambulance must be on stand by at the Medical Centre.

5.3.9.6 Equipment for Vehicle Type C

Personnel:

- Two ambulance personnel or paramedics of whom one would be the driver and the other would be a person capable of giving first aid

Medical:

- Stretcher
- Oxygen supply
- Equipment to immobilise limbs and spine (including cervical spine)
- First aid medicaments and materials

Technical:

- Radio communication with Race Control and the CMO
- Visible and audible signals

5.3.10 Helicopter

A helicopter must be fully equipped with adequate personnel and equipment and be appropriately licensed for the relevant country and flown by an experienced pilot familiar with medical air evacuation and the potential landing sites. The medical personnel - doctor and paramedic(s) - should be qualified in and able to carry out emergency treatment and resuscitation. The helicopter should be of a design and size that will allow continuing resuscitation of an injured rider during the journey. It should be positioned close to the medical centre such that an ambulance journey between medical centre and helicopter is not necessary. It is permissible for the helicopter to leave the circuit to transfer an injured rider to hospital without the need to stop the event with the agreement of the Chief Medical Officer, Medical Director and Race Director providing that it will have returned to the circuit within the time required to prepare a further rider for transfer by helicopter. If the distance to hospital by air or severe weather does not permit this a further helicopter “on site” may be required or after consultation between the CMO, Medical Director and FIM Medical Representative further transfers may be undertaken by road by emergency ambulance providing the hospital is in reasonable distance. The designated hospital should normally be within 20 minutes by air and 45 minutes by road. To ensure the availability of a helicopter at all times during the event, it is recommended that 2 helicopters be available.

5.3.11 Medical Ground Posts

These are placed at suitable locations and in sufficient numbers around the circuit to provide rapid medical intervention and if appropriate evacuation of the rider from danger with the minimum of delay. The personnel must have sufficient training and experience to take action autonomously and immediately in case of an accident.

There should be a minimum of three personnel at each medical ground post

Type GP1:

- A doctor experienced in resuscitation and the pre-hospital management of trauma and
- First aiders or stretcher bearers

Type GP2:

- At least one Paramedic or equivalent experienced in resuscitation and the pre-hospital management of trauma and
- Two first aiders or stretcher bearers

Medical Equipment:

- Equipment for initiating resuscitation and emergency treatment including:
- Initial airway management
- Ventilatory support
- Haemorrhage control & circulatory support
- Cervical collar
- Scoop stretcher or spinal board

Technical Equipment:

- Radio communication with race control and the CMO
- Adequate shelter for staff and equipment should be available.

5.3.11.1 Pit Lane Ground Post

Personnel:

A doctor and paramedic (or equivalent) experienced in emergency care must be positioned in the pit lane.

One or more Pit Lane Ground posts, depending on the length of the pit lane are required.

Medical Equipment:

- Airway management and intubation equipment
- Drugs for resuscitation and analgesia/IV fluids
- Cervical collars
- Manual respiration system
- Intravenous Infusion Equipment
- First Aid Equipment
- Stretcher

Technical Equipment:

- Radio communication with race control and the CMO

5.3.12 Medical Centres

Refer to Art. 029.9.1 of the FIM Standards for Road Racing Circuits (SRRC).

5.3.12.1 Equipment for Resuscitation Areas:

- Equipment for endotracheal intubation, tracheostomy and ventilatory support, including suction, oxygen and anaesthetic agents
- Equipment for intravenous access including cut-down and central venous cannulation and fluids including colloid plasma expanders and crystalloid solutions
- Intercostal drainage equipment and sufficient surgical instruments to perform an emergency thoracotomy to control haemorrhage
- Equipment for cardiac monitoring and resuscitation, including blood pressure and ECG monitors and a defibrillator
- Equipment for immobilising the spine at all levels

- Equipment for the splinting of limb fractures
- Drugs/IV fluids including analgesic, sedating agents, anticonvulsants, paralysing and anaesthetic agents, cardiac resuscitation drugs/IV fluids
- Tetanus toxoid and broad spectrum antibiotics are recommended
- Equipment for diagnostic ultrasound

  A permanent or portable X-ray machine, appropriate to detect usual bone fractures in motorcycle sport, must be available. A digital Xray machine is recommended.

5.3.12.2 Equipment for minor injuries area:

The area must have beds, dressings, suture equipment and fluids sufficient to treat up to three riders with minor injuries simultaneously. Sufficient stocks to replenish the area during the meeting must be available and sufficient Doctors and Paramedics experienced in treating trauma must be available.

5.3.12.3 Staff of Medical Centre

The following specialists should be immediately available in the medical centre:

- Trauma resuscitation specialist (e.g. Anaesthetist, Accident and emergency specialist, Intensive care specialist)
- Surgeon experienced in trauma

Nurses and paramedics in a sufficient number, should be experienced in resuscitation, diagnosis and treatment of seriously injured patients.

5.3.12.4 Medical homologation of circuits / Medical inspection of events

All circuits require medical homologation.

All circuits which have undergone significant changes in the layout or at the Medical Centre within the homologated period are required to renew homologation. The objective is to maintain the highest standard of services for the safety of the riders. This code will be used as the reference for the homologation inspections. Any request for renewal of homologation should be made by the FMN concerned.

The specific requirement for each circuit will be decided by the FIM Medical Inspector in collaboration with the Circuit CMO who has to be present

according to the requirements of the Championships promoters and with reference to the Medical Code.

Following homologation, a certificate of homologation will be issued for a period of 3 years and will include details of medical services.

Sample drawings of Medical Centre models are available from the FIM Executive Secretariat for reference.

The FMN and the Organiser will be informed by the FIM if the circuit requires renewal of homologation.

The FIM also reserves the right to review such a homologation at any time.

5.3.13 Procedure in the event of an injured rider

The management of an injured rider is under the control of the CMO and should be the following:

A fallen rider must be reached by a doctor or paramedic who can begin treatment **with the minimum of delay** of the rider coming to rest. If the rider is injured, the CMO must be informed by radio so that further procedures can be initiated. It is recommended that the CMO be stationed in Race Control with the Medical Director with access to Closed Circuit Television to monitor the situation. Upon request by the CMO any Medical Vehicle can be dispatched to the scene of the incident, only the Race Director can authorize entry onto, or response via track. Similarly, interruption or cessation of racing or practice session can only be authorized by the Race Director. It is the responsibility of the CMO and Medical Director to advise the Race Director of incidences where access to a fallen rider(s) necessitates this.

Response Codes are:

Code 0 No medical intervention required

Confirmation by radio and CCTV to CMO & Medical Director that no medical intervention required

Rider gets up unassisted

Code 1	Short Rescue
	Confirmation by radio and CCTV to CMO & Medical Director that:
	Rider able to walk with assistance
	Rider will be cleared from track in less than 1 minute
Code 2	Long Rescue
	Confirmation by radio and CCTV to CMO & Medical Director that the rider is conscious and no spinal injury is suspected
	Rider can be safely evacuated by scoop stretcher or board
	Rider will be cleared from track in less than 2 minutes
Code 3	Prolonged Rescue
	Confirmation by radio and CCTV to CMO & Medical director that the rider(s) is (are) unconscious, a spinal injury is suspected or the rider is otherwise seriously injured
	Rider requires immobilisation and/or stabilisation before being moved
	Rescue will take longer than 3 minutes
	Medical intervention required on track
	Medical Cars will be deployed to support the trackside medical teams in which case the rider(s) should not be moved or transferred until the arrival of the medical cars

Transfer to the Medical Centre

The injured rider will be transferred to the Medical Centre when his condition permits. The CMO shall decide the time and method of transfer. Rarely, at the discretion of the CMO only, a rider may be transferred to hospital directly from the trackside.

The vehicle used to transfer the rider must be on scene of the accident with minimum delay following the order to intervene.

Medical Centre

At the Medical Centre, medical personnel will be available to treat the rider. The CMO remains responsible for the treatment of the rider.

If the rider is unconscious, he will be treated by the Medical Centre staff under the responsibility of the CMO. The rider's personal doctor may observe this treatment and may accompany the rider to hospital.

A rider who is conscious may choose the medical personnel by whom he wishes to be treated. A rider who does not wish to be treated by the Medical Centre staff against their advice must sign a "Competitor Self Discharge" Form.

Refer also to the SCAT3™ document in the Appendix which is a standardised tool for evaluating injured athletes for concussion.

Transfer to hospital

The CMO shall decide the time of transfer, the mode of transfer and the destination of an injured rider. Having made the decision, it is his/her responsibility to ensure that the receiving hospital and appropriate specialists are informed of the estimated time of arrival and the nature of injuries. It is also the responsibility of the CMO to ensure appropriately skilled and equipped staff accompany the rider.

A doctor of the Clinica Mobile will accompany the rider.

5.4 MEDICAL MALPRACTICE INSURANCE

All doctors and other medical personnel at an event must have adequate medical malpractice insurance cover.

RIDER SELF DISCHARGE FORM

PART 1 : To be completed by the rider

I, _____ rider no _____

in the _____ class, discharge myself against local medical advise

and understand the possible consequences.

Signed : _____ Date : _____ Time : _____

PART 2 : To be completed by the Chief Medical Officer (CMO)

I, Dr _____ , CMO at the

_____ circuit, confirm that I have

explained the possible consequences of the rider discharging himself/herself.

In view of the language difficulties, this explanation was given through an

interpreter (Delete if inappropriate).

Signed : _____ Date : _____ Time : _____

5 Copies : CMO, Rider, Clerk of the Course, Medical Director, Clinica Mobile

6. ANTI-DOPING CODE

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

7. ENVIRONMENTAL CODE

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

FÉDÉRATION INTERNATIONALE
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