





# MOTOAMERICA AMA ROAD RACING SERIES FIM NORTH AMERICA CHAMPIONSHIP REGULATIONS

This book (hereinafter collectively referred to as the "Regulations") has been printed on 4.25.16. 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 AMA AND FIM NORTH AMERICA ROAD RACE RULE BOOKS.

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# 2016 EDITION - Version 4-25-2016

# MOTOAMERICA AMA ROAD RACING SERIES FIM NORTH AMERICA CHAMPIONSHIP 2016 Calendar



Circuit of the Americas Fri-Sun, April 8-10



Road Atlanta Fri-Sun, April 15-17



New Jersey Motorsports Park Fri-Sun, April 29- May1



Virginia International Raceway Fri-Sun, May 13-15



Road America Fri-Sun, June 3-5



Barber Motorsports Park Fri-Sun, June 10-12



Utah Motorsports Campus Thu-Sat, June 23-25



Mazda Raceway Laguna Seca Fri-Sun, July 8-10



New Jersey Motorsports Park Fri-Sun, September 9-11

# AMENDMENTS TO THE MOTOAMERICA AMA ROAD RACING REGULATIONS (HEREINAFTER COLLECTIVELY REFERRED TO "REGULATIONS").

The AMA, through the MotoAmerica Rules Commission and the MotoAmerica 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 would then be the prevailing versions.

The Permanent Bureau consists of:

- 1. One Representative of the Krave Group LLC
- 2. One Representative of MotoAmerica
- 3. One Representative of FIM North America (FIMNA) or the American Motorcyclist Association (AMA)

The Permanent Bureau shall meet on a regular basis to discuss and decide on all issues 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 MotoAmerica Rules Commission is competent to study any proposal of changes to the MotoAmerica AMA Road Racing Series Championship Regulations.

The MotoAmerica Rules Commission consists of:

- 1. One Representative appointed by MotoAmerica who will be the Chairman of the MotoAmerica Rules Commission
- 2. One Representative appointed by FIM North America (FIMNA) or the American Motorcyclist Association (AMA)
- 3. One Representative KRAVE Group LLC
- 4. One FIM Technical Representative
- 5. One Participant Representative

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

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2016 EDITION

# **GENERAL UNDERTAKINGS AND CONDITIONS**

All riders, team personnel, officials, promoters/organizers and all the persons involved in any capacity whatsoever participating in the MotoAmerica AMA Road Racing Series, an FIM North America Championship (hereinafter collectively referred to "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. FIM ENVIRONMENTAL CODE

These Regulations, Codes and Standards may be supplemented and amended from time to time (hereinafter collectively referred to as the "Regulations").

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

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

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 motorcycle 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 motorcycle 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.

# ANTI-DOPING CODE

All the persons concerned must at all times observe the US Anti-Doping Agency Code and may be penalized accordingly.

# **SPORTING REGULATIONS**

# 1.0 SPORTING REGULATIONS

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# 1.0 SPORTING REGULATIONS

#### 1.1 INTRODUCTION

**1.1.1** A series of motorcycle races counting toward the MotoAmerica AMA Road Race Series, an FIM North America Championship for Riders and Manufacturers will be organized.

#### 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 North America Stewards during that period.

- **1.2.2** Events must be staged on race circuits that have been approved by the MotoAmerica, FIM North America and the AMA.
- **1.2.3** Events must not include any other races except for races approved by MotoAmerica, FIM North America and the AMA.
- **1.2.4** Any activity involving 4 wheels racing vehicular use of the track during the event, including "demonstrations", displays or other activity must receive prior approval from AMA and MotoAmerica.
- **1.2.5** Organizers will be nominated by MotoAmerica and the AMA.
- **1.2.6** The Organizer is responsible for providing the facilities and personnel to ensure the smooth and efficient running of the event.
- **1.2.7** MotoAmerica shall obtain or shall arrange for the provision by each Organizer of an insurance for third party liability for each meeting to cover MotoAmerica liability and that of all participants, the manufacturers, riders, sponsors, teams, service companies and officials in case of accidents to third parties during a meeting or during the practices.
  - a. The insurance policy shall also cover any possible liability of FIM North America, the AMA and the Organizer to third parties. A copy of the policy shall be made available to the Organizer, MotoAmerica and to the AMA not later than 20 days prior to the event.
  - b. The coverage provided for each event shall be a minimum of US \$5 million.
  - c. The validity of the insurance will come into effect three days before the first race and will terminate one day after the last race day.

- d. In case the Organizer subscribes his own Third Party Liability Insurance in full conformity with the above specification of the present art. 1.2.7, the Organizer may send the certificate of insurance duly filled in, signed and stamped by an authorized Representative of the Insurance Company, to MotoAmerica and to the AMA.
- e. This original declaration (form to be provided by MotoAmerica) shall be sent to the AMA by mail or courier at least 20 days before the event.
- **1.2.8** At least 30 days prior to the Event, the Organizers of the event must submit the following information to the AMA and MotoAmerica:

The location at the circuit of the rider information center and the official notice board.

- a. The name and address of the company providing the third party liability insurance coverage and the number of the policy.
- b. The name, address and telephone number of the Circuit Medical Representative.
- c. MotoAmerica must publish the above information and Supplementary Regulations. This information must be available to all teams with an entry for the Event.

# 1.3 THE PADDOCK

- **1.3.1** The Paddock, pit boxes and all other facilities should be available to teams at least on the Thursday prior to a Sunday. Subject to the MotoAmerica event schedule as notified in the Teams Handbook.
- **1.3.2** Access must be available for teams arriving to set up between the hours of 08:00 and 20:30. Subject to the MotoAmerica event schedule.
- **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 firefighting service available to all riders, teams, manufacturers, sponsors, service companies, officials, AMA, MotoAmerica, etc. At minimum the services must be available from 08.00 – 18.00hrs on the day prior to the "setting up of team's day", and from 1 hour before on track activity begins and two hours after on track activity ceases during the event.
- **1.3.5** Full security must be supplied to the Paddock area from at least midnight of the Thursday prior to a Sunday race until midnight of the Sunday 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.

a. Race Director

The Race Director is responsible for:

- 1. Ensuring proper observance of the Regulations.
- 2. Communications between the Event Management Committee and the FIM North America Stewards.
- 3. 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.
- 4. 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.
- 5. The starting procedure.
- 6. The use of medical cars/fast interventions vehicles.
- 7. Immediate approval and signature with time of provisional results (practices, qualifying, warm-ups, starting grids and races) and presentation of reports to the Event Management Committee.
- b. MotoAmerica Rider Representative

The MotoAmerica Rider Representative is responsible for assisting riders with clarifying and interpreting sporting and technical regulations. He accepts rider input regarding safety issues. He accepts, evaluates and makes recommendations regarding rider requested exceptions.

c. FIM North America Safety Officer

The FIM North America Safety Officer is responsible for the supervision of all aspects of safety.

d. Technical Director

The Technical Director is responsible for ensuring that technical regulations are correctly enforced and supervising scrutineering and protests of a technical nature.

#### **1.4.2** Individual event officials appointed by FIM North America

All individual event officials shall be appointed for each event.

a. FIM North America Chief Steward

The FIM North America Chief Steward (with FIM Sporting Steward license) is responsible for ensuring that the event is conducted according to the Regulations.

b. FIM North America FMNR Steward

The FIM North America FMNR Steward (with FIM Sporting Steward license) is appointed in coordination with the host federation and is responsible for ensuring that the event is conducted according to the Regulations.

c. FIM North America Safety Officer

The FIM North America Safety Officer is appointed in coordination with MotoAmerica and serves as a permanent official. The FIM North America Safety Officer is responsible for:

- 1. 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.
- 2. Ensuring that all officials and services are in place. The stationing of all track personnel and equipment (i.e. marshals, fire-fighting services, medical services, moto-taxi, recovery and intervention vehicles, flags, etc.) alongside the circuit no later than 30 minutes prior to all on track activity.
- 3. The Race Director, the FIM North America Safety Officer, the and the Medical Officer 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.
- 4. 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 North America Safety Officer.
- **1.4.3** Individual event officials appointed by the series or organizer
  - a. Secretaries

Secretaries are responsible for providing secretarial support for the Race Direction and the FIM North America Stewards. They are also responsible for effecting communications between various officials.

b. Other Officials, Marshals, Technical Scrutineers, Security Personnel, Medical Staff 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.

**1.4.4** The Race Direction

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

**1.4.5** The FIM North America Stewards

The FIM North America Stewards shall be appointed for each event by FIM North America.

# 1.5 MOTOAMERICA EVENT MANAGEMENT

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

- The MotoAmerica Race Director who will chair the meetings
- Circuit Representative
- The Delegate appointed by MotoAmerica
- The MotoAmerica Technical Director
- The FIM North America Safety Officer
- **1.5.1** At any time, the duties of the members of the Event Management Committee are:
  - To ensure the smooth and efficient running of the event.
  - To make recommendations to the Race Direction concerning any matter that is in contradiction to the Regulations.
  - To report to the Race Direction any infringements of the Regulations.
- **1.5.2** The Event Management Committee will meet at any time required during the event, but at least:
  - Prior to the first practice session
  - At the end of each practice day
  - At the end of the event
- **1.5.3** The quorum for a meeting of the Event Management Committee is three persons.
- **1.5.4** All the Members have one vote. Decisions are based on a simple majority. In the case of a tie, then the MotoAmerica Race Director will exercise a casting vote.
- **1.5.5** The Race Director may invite the participation of Officials or other persons to assist in the meetings. However, these invited persons will have no right of vote.
- **1.5.6** The duties of the Event Management Committee are:
  - To receive reports from the various Officials concerning scrutineering, practice and races.
  - To make recommendations to the Organizer to improve the smooth and efficient running of the event.

#### 1.6 MOTOAMERICA RACE DIRECTION

- **1.6.1** The Race Direction will comprise the following persons:
  - The Race Director (who will chair the meetings)
  - The FIM North America Safety Officer
  - The MotoAmerica Riders' Representative

- **1.6.2** The quorum for a meeting of the Race Direction is two persons.
- **1.6.3** Each member has one vote and 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. A change in the conduct and/or format of a race and/or a practice session based on safety considerations and provided that such decision is absolutely necessary to resolve a situation not foreseen in the Regulations. In such exceptional cases, such decision may prevail over specific provisions of the Regulations.
  - d. Provided that it is absolutely necessary to resolve a situation not foreseen in the Regulations, the Race Direction may issue pre-race instructions or clarifications and in specific cases even create pre-race regulations (e.g. to take into account the local conditions at a particular circuit). However, such actions may only be taken within the limits set out by the Regulations.
  - e. To adjudicate on any protest relating to infringements of the Regulations.

# 1.7 FIM NORTH AMERICA STEWARDS

- **1.7.1** There will be a panel of two FIM North America Stewards (with FIM Sporting Stewards license) supervised by the Chief Steward who will chair the meetings.
- **1.7.2** The FIM North America Stewards are responsible for enforcing the Regulations. All Stewards officiating at more than four events in any year shall be approved by the Permanent Bureau.
- **1.7.3** The quorum for a meeting of the FIM North America Stewards is two persons.
- **1.7.4** If the Chief Steward is indisposed during the event, the second FIM North America Steward will fill the vacancy.
- **1.7.5** The second FIM North America Steward may be replaced by the FMNR steward or a selected FIM Moto GP steward at events conducted in conjunction with World Championship events.
- **1.7.6** 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.
- **1.7.7** The FIM North America Stewards have no executive role in the running of the events.
- **1.7.8** The FIM North America Stewards will meet at any time required during the event.

- **1.7.9** The FIM North America 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.
- **1.7.10** All decisions of the FIM North America 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 MotoAmerica Rules Commission reserve the right to amend the calendar or change the number of races per event due to force majeure.

#### 1.9 CLASSES

**1.9.1** Classes will be for the following categories:

Class	Minimum License Required	Cylinders
Superbike	Superbike	2, 3 or 4 cylinders
Superstock 1000	Superbike	2, 3 or 4 cylinders
Supersport	Supersport or Superbike	2, 3 or 4 cylinders
Superstock 600	Superstock 600	2, 3 or 4 cylinders
KTM RC Cup	Superstock Limited or SSTK 600	Single cylinder

**1.9.2** Technical Regulations governing the five classes are provided under chapter 2 of the Regulations.

#### 1.10 LICENSE REQUIREMENT AND ELIGIBLE COMPETITORS

- a. United States riders must be in possession of a license issued by the AMA, as defined in Article 1.9.1.
- b. Non United States riders must be in possession of an FIM International or FIM Continental Union license and the appropriate start permission from their own FMN to include personal accident insurance and repatriation. The AMA, MotoAmerica or the organizer will not be held responsible for repatriation.
- c. Non United States riders may be issued an AMA license if they provide a release from their own federation and they meet the minimum requirements.

License Type	Minimum Age	Maximum Age
Superbike	18 years	50 years

Supersport	16 years	50 years
Superstock 600	16 years	50 years
Superstock Limited	14 years	22 years

- d. The limit for the minimum age starts on the date of the rider's birthday.
- e. A license may be issued up to the maximum age for each license type and will be valid until the end of the calendar year. An exception may be made on an annual basis for riders above 50 years of age whom **will be required** to provide evidence of medical fitness.

#### 1.11 ENTRIES

- **1.11.1** The registration form and the entry fees are posted on the website <u>www.motoamerica.com</u>
  - a. Riders shall not take part in more than two classes on the same day.
  - b. The withdrawal of entry from an event must be communicated to MotoAmerica no later than seven days before the event takes place. The communication must be written and sent through e-mail to registration@motoamerica.com. Riders failing to communicate this circumstance may be penalized.
  - c. AMA and MotoAmerica have the right not to accept or to reject an entry.
- 1.11.2 A compulsory rider/entrant briefing will be held for all riders participating in the MotoAmerica AMA Championship prior to the first official practice session each event. An entrant or representative may represent more than one rider.
  - a. An additional compulsory riders briefing may be held for all new riders who will be participating in the event.
  - b. Failure to attend the briefings in full may result in disqualification from the event.
  - c. A waiver can be granted to a rider by Race Direction.
- **1.11.3** A rider shall be deemed to have taken part in the event when he participates in, at least, one practice session.
- **1.11.4** A rider shall be deemed to have started a race when he participates in, at least, the first lap of the race.

#### 1.12 STARTING NUMBERS

**1.12.1** Each rider accepted for any class in the MotoAmerica Series will be allocated a specific starting number which will be valid for the entire Championship. AMA and MotoAmerica reserve the right to assign the number to a rider or team. In general, the starting number will be based on the results of the rider in the previous year's Championship. Requests will be taken into consideration.

**1.12.2** The number one is reserved for the rider that finished in the first place in the previous year championship.

# 1.13 SCHEDULE

**1.13.1** The schedule for the event should be posted no later than 30 days prior to the event.

# 1.14 TECHNICAL CONTROL AND MEDICAL CONTROL

- **1.14.1** All motorcycles should be checked by the Technical Stewards prior to first participation in practice on safety aspects, according to the published schedule. At the discretion of the Technical Director, machines and protective clothing may be checked earlier than the schedule if the machines are ready.
- **1.14.2** Teams may present for technical control two (2) motorcycles per rider for the Superbike class, which will be individually identified by the technical controllers.

#### 1.14.3 Teams may present for technical control one (1) motorcycle per rider for the Superstock 1000, Supersport, Superstock 600 and KTM RC Cup classes, which will be specially identified by the technical controllers.

- **1.14.4** Unless a waiver is granted by the Race Direction, teams who do not comply with the schedule for technical or any medical controls will not be allowed to take part in the event.
- **1.14.5** The procedure for technical control is described in the Technical Regulations, articles 2.0 thru 2.9. The procedure for medical control and doping control is described in the Medical Code.

#### 1.15 INSTRUCTIONS AND COMMUNICATIONS TO COMPETITORS

Instructions may be given by the Race Director 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 available to each team representative. Posting on the official notice board and/or giving to the team representative will be deemed as proof of delivery.

- **1.15.1** 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.
- **1.15.2** Any official communication from the Race Direction or the Permanent Officials to a team or rider must be communicated in writing, by time keeping monitors or radio. Similarly, any communication from a team or rider to the Race Direction or the Permanent Officials must also be made in writing.
- **1.15.3** MotoAmerica Race Control communicates schedule, track, rider and motorcycle status information on the frequency published in the supplementary regulations and/or timing screens throughout each race event. It is mandatory that each team possess either a radio or scanner

to monitor MotoAmerica Race Control. Radios must not be capable of broadcasting on the control frequency. Every team is required to bring an example of their equipment to tech inspection prior to the first on track activity and a once a year log will be maintained to monitor rule compliance. All teams must have at least one crew member monitor this "listen only" communications channel during all practice, qualifying, and races. Teams must also monitor timing screens similarly. Failure to comply may result in a penalty or fine by Race Direction.

# 1.16 FLAGS AND LIGHTS

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

- **1.16.1** Flags and lights used to provide information:
  - a. 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. When the pit-lane exit is open, this flag must be waved at the pit-lane exit.

#### b. 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.

c. White Flag with diagonal red cross (stroke width of the cross between 10 and 13 cm)

Indicates drops of rain on this section of the track. This flag must be waved at the flag marshal post.

d. Yellow and Red Striped Flag together with the White Flag with diagonal red cross

Indicates it is raining on this section of the track. This flag must be waved at the flag marshal post.

e. White Flag

Indicates the final lap of a race, waved at the finish line.

- f. 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) to pass him at the earliest opportunity. Overtaking within a group of lapped riders is forbidden under the blue flag.
  - 2. Any Infringement of this rule may be penalized by Race Direction.

g. Checkered Black / White Flag

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

h. Checkered Black / White Flag and Blue Flag

The checkered black/white flag(s) 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. 1.26.1c).

i. Green Light

If used 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.

- **1.16.2** Flags Which Convey Information and Instructions:
  - a. Yellow Flag
    - 1. Waved at designated rows of the starting grid, this flag indicates that the start of the race is delayed.
    - 2. A standing yellow flag at the flag marshal post indicates that there is a danger ahead beside the track. Riders must exercise caution, overtaking is forbidden up until the point where the green flag is waved.
    - 3. Waving yellow flag at the flag marshal post indicates that there is a hazard wholly or partly blocking the track, or other high risk situation. The riders must slow down and be prepared to stop. Overtaking is forbidden from the first yellow flag 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.
    - 4. 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 does not go back after the board has been presented 5 times, he may be penalized by the Race Direction. In both cases, further penalties (such as penalty points, fine or suspension) may also be imposed.
    - 5. If immediately after having overtaken, the rider realizes that he made an infraction, he must raise his hand and let past the rider(s) that he has overtaken. In this case, no penalty will be imposed.
    - 6. During the final inspection lap, this flag must be waved at the exact place where the flag marshal will be positioned during the practices, Superpole, warm ups and races.
  - b. Red Flag and Red Lights
    - 1. When the practice or race 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.

- 2. When the pit-lane exit is closed, this flag will be waved at the pit lane exit and the light will be switched on. Riders are not allowed to exit the pit lane. Any infringement of this rule may be penalized by Race Direction.
- 3. The red flag will be <u>shown motionless</u> on the starting grid at the end of the warm up lap.
- 4. The red flag may also be used to close the track.
- 5. The red lights will be switched on at the start line for between 2 and 5 seconds to start each race.
- c. Black Flag
  - 1. This flag is used to convey instructions to one rider only and is waved at selected 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.
  - 2. This flag can also be presented to a rider for a reason other than a penalty (e.g. to rectify a non-dangerous technical problem such as a transponder problem).
  - 3. Any infringement of this rule may be penalized by Race Direction.
- d. Black Flag with orange disk (40 cm)
  - 1. This flag is used to convey instructions to one rider only and is waved at selected flag marshal posts 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.
  - 2. Any infringement of this rule may be penalized by Race Direction.
- **1.16.3** Flag Dimension

The flag dimension should be 80cms in the vertical and 100cms in the horizontal. The flag dimension will be checked the day preceding the day of the first practice session.

**1.16.4** Flag Marshals Posts

The location will be fixed during the circuit homologation. Marshals Uniforms

It is strongly recommended the marshals' uniforms to be in white or orange and the rain coat to be transparent.

#### 1.17 SAFETY CARS

The safety cars must be equipped with flashing lights.

#### 1.18 PRACTICE

1.16.5

**1.18.1** Practice Restrictions

Practice or testing may not take place on any of the tracks in the current year championship from thirty days prior to the first day of the first event, until the last day of the last race with the following exceptions:

- a. Official practice sessions organized by MotoAmerica.
- b. Participation in any other racing event, but not within 30 days of a MotoAmerica event at the same circuit.
- c. Wild cards and one event riders. A one event rider is defined as: A rider that is not a MotoAmerica season entrant. In addition, the rider has not participated in more than one event (maximum of two races) prior to the event in question. Should a rider participate in more than two events (maximum of 4 races) after taking advantage of the one event status as it pertains to Section 1.18.1 he shall be subject to penalties including starting from the back of the grid for up to two races at the discretion of Race Direction.
- d. Any activity allowed by Race Direction.
- e. Riders acting as coaches for an approved school on a motorcycle of different displacement from their competition motorcycle, and deemed to not be a competitive advantage. Requests must be submitted in writing prior to on track activity and approved by the MotoAmerica Permanent Bureau.
- f. Teams may apply for exceptions in writing to MotoAmerica, and the test must be open to all persons with a current license.
- g. Exceptions to this rule may be granted, with the approval of the MotoAmerica Permanent Bureau, due to reasons of force majeure. For example, where a team recruits a qualified rider to replace an injured rider, the qualified rider could possibly have practiced unwittingly at a circuit included in the Championships.
- h. Riders found to be in violation may be fined and/or subject to suspension from participation in part or whole of a MotoAmerica Championship event. Riders who are found to be in violation of this policy a second time may be subject to a penalty as decided by race direction or the MotoAmerica Permanent Bureau, including but not limited to suspension for the remainder of the season.
- **1.18.2** Practice Sessions (Superpole and warm-up inclusive)
  - a. Practice sessions may be conducted as free practice or qualifying practice and in all cases are timed.
  - b. Riders will commence practice from the pit lane when the green light and/or the green flag is displayed at the exit of the pit lane.
  - c. The duration of practice will commence from the display of the green light and/or waving of the green flag. A visible board or count-down will be shown in the pit lane to indicate the minutes of practice remaining.

- d. The end of practice will be indicated by the waving of a checkered flag, at which time the pit exit will be closed. A rider's time will continue to be recorded until he passes the official checkered flag at the finish line after the allotted time has elapsed. After the checkered flag riders may complete the lap to the pit entry.
- e. If practice is interrupted due to an incident or any other reason, then a red flag will be displayed at the start line and at all flag marshals posts. All riders must return slowly to the pit lane. If practice is restarted, the time remaining will be that shown on the count-down device.
- f. After practice has started, the condition of the racing surface of the circuit should not be altered except on instruction from the Race Director or the FIM North America Safety Officer in response to a localized change in conditions.
- g. Refueling is allowed in the pit lane. Riders must be off the bike during refueling. The ignition must be off and the motorcycle must be on a rear stand before refueling is permitted to start. A crew member must be standing by with a fire extinguisher with the pin pulled and the nozzle aimed at the motorcycle. No electrical devices such as battery chargers, fans, or tire warmers may be plugged in during any refueling operations.

#### 1.18.3 Motorcycle Use

- a. During the event a rider may only use a motorcycle that has been presented for technical control, according to the procedures described in articles 2.4.10, 2.5.10, 2.7.10, and 2.9.10 of the Technical Regulations.
- b. Superbike riders may use either motorcycle presented for technical control at any time during the event except during the races after the leader has completed the first lap of the initial start at which time all spare machines must be removed from the hot side of pit lane. Spare machines will not be available to use for any restarts.
- c. Superstock 1000 riders may use the primary motorcycle presented for technical control at any time during the event. Superstock 1000 riders are allowed one complete spare motorcycle. Only one motorcycle may be presented for preliminary technical checks and it will be the only motorcycle allowed on the track and in the pit box during the practices, qualifying, Superpole and races. If the primary motorcycle is declared unrepairable by the technical director, the spare machine may then be presented for scrutineering before the next session.
- d. All other classes may only use the motorcycle presented for technical control.

#### 1.18.4 Lap Times

All laps for all sessions will be timed. A new lap record for a circuit can only be established by a rider during a race. Both for practice and for races, 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.

#### **1.18.5** Qualifying Practice Results

The results will be based on the fastest time recorded by the riders in all practices. In the case where all qualifying **and Superpole** sessions have been cancelled, the results will be based on the fastest time recorded by the riders in all practices. In the event of a tie, riders' second and subsequent best times will be taken into account.

**1.18.6** Qualification for the Race

#### **1.18.6.1** KTM RC Cup

To qualify for the race, a rider must achieve a time at least equal to 110% of the time recorded by the fastest rider of his class. Any rider who fails to achieve a qualifying time may be permitted to take part in the race provided that in any of the free practice sessions he has achieved a time at least equal to 110% of the fastest rider in the same session, dependent on space available as determined by race direction. Provisional starts may be applied for and approved by the Race Direction.

#### 1.18.6.2 Superstock 600 Last Chance Qualifier

All Superstock 600 riders that do not qualify for the Supersport/ Superstock 600 Race from the 600 qualifying sessions will take part in the Superstock 600 Last Chance Qualifier if they achieve a time at least equal to 110% of the time recorded by the fastest rider in their session. The race will be a minimum of 20 miles in length and will use the Quick Start procedure. Any rider who fails to achieve a qualifying time may be permitted to take part in the race provided that in any of the free practice sessions he has achieved a time at least equal to 110% of the fastest rider in the same session, dependent on space available as determined by race direction. Provisional starts may be applied for and approved by the Race Direction.

#### 1.18.6.3 Supersport and Superstock 600

a. Supersport Riders

To qualify for the Supersport/Superstock 600 Race, a Supersport rider must achieve a time at least equal to 107% of the time recorded by the fastest rider of the 600 qualifying sessions. Any rider who fails to achieve a qualifying time may be permitted to take part in the race provided that in any of the free practice sessions he has achieved a time at least equal to 107% of the fastest rider in the same session, dependent on space available as determined by race direction. Provisional starts may be applied for and approved by the Race Direction.

b. Superstock 600 Riders

- 1. To qualify for the Supersport/Superstock 600 Race, a Superstock 600 rider must achieve a time at least equal to 107% of the time recorded by the fastest rider of the 600 qualifying sessions or be ranked in the top 15 Superstock 600 riders. The top 15 riders must achieve a time at least equal to 110% of the time recorded by the fastest rider of the 600 qualifying sessions.
- 2. For double header rounds, all riders will be automatically be qualified for both races, as long as they meet the provisions above.
- 3. The top 5 from the Superstock 600 Last Chance Qualifier will be qualified for the Supersport/Superstock 600 Race for that day, as long as they achieve a time at least equal to 110% of the time recorded by the fastest rider of the 600 qualifying sessions.
- 4. Qualifying positions are dependent on space available as determined by race direction.
- 5. Provisional starts may be applied for and approved by the Race Direction.
- **1.18.6.4** Superbike and Superstock 1000
  - a. Riders are automatically qualified for the race if they participate in Superpole 1 or Superpole 2 (refer to Art. 1.19.3.2).
  - b. To participate in Superpole and races a rider must achieve a lap time at least equal to 107% of the time recorded by the fastest rider in the same session during any one of the practice sessions.
  - c. Substitute riders, replacing a rider after the event has started, are subject to the above conditions.
  - d. If a substitute rider only participates from practice session 3 onwards and does not achieve a lap time of 107% of the fastest rider in the same session, but is classified in the top 20 positions overall from all practice sessions then that rider may participate in Superpole 1, where he/she must achieve a lap time of at least 107% of the fastest rider in Superpole 1 to be allowed to start the race, unless Superpole 1 is cancelled in which case the rider may start the race.
  - e. To qualify for the race, a rider must achieve a time at least equal to 107% of the time recorded by the fastest Superstock 1000 rider in the same session during any one of the practice sessions. Any rider who fails to achieve a qualifying time may be permitted to take part in the race provided that in any of the timed practice sessions he/she has achieved a time at least equal to 107% of the fastest rider in the same session, dependent on space available as determined by race direction. Provisional starts may be applied for and approved by the Race Direction.

# 1.19 GRID POSITIONS

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

- **1.19.2** For all classes, the grid will be arranged in the "in echelon" 3-3-3 configuration. Each line will be offset. There will be a distance of approximately 9 meters between each row.
- **1.19.3.1** Grid positions for KTM RC Cup

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

#### 1.19.3.2 Grid positions for Supersport and Superstock 600

Grid positions will be based on the fastest time recorded by the riders in all qualifying practices. In the case where all qualifying practices have been cancelled, the grid position will be based on the fastest time recorded by the riders in all free practices. In the event Race Direction determines a large disparity of track conditions between the two groups in qualifying or free practice, Group 1 riders will be placed on the grid before Group 2 riders.

**1.19.3.3** Grid positions for Superbike and Superstock 1000

Grid positions will be determined by the fastest lap time recorded by each rider in the practice sessions and two Superpole sessions as follows:

- a. Based on combined practice times, the ten fastest riders in the combined practice go through to Superpole 2.
- b. All other riders in the combined practice sessions will take part in Superpole 1 (provided they are qualified according to Art. 1.18.6.4b).
- c. The fastest two riders from Superpole 1 transfer to Superpole 2.
- d. The twelve riders in Superpole 2 will take the first 12 grid positions according to their fastest lap time in Superpole 2.
- e. If any riders do not record a lap time in Superpole 2 they will be classified as the last riders in Superpole 2 according to their combined lap times of all practice sessions.
- f. The riders in Superpole 1 that do not transfer to Superpole 2 will take the grid positions from 13<sup>th</sup> position according to their fastest lap time in Superpole 1. If any qualified riders do not record a lap time in Superpole 1 they will be classified as the last riders in Superpole 1 according to their combined lap times of all practice sessions.
- g. In the case where Superpole 1, Superpole 2 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 all practice sessions. In the case of only Superpole 1 being cancelled, then the 11<sup>th</sup> and 12<sup>th</sup> fastest riders from all practice sessions combined will participate in Superpole 2.

- h. Any riders that did not qualify for Superpole but qualified for the race will take grid positions behind all riders qualified for Superpole according to their combined practice times of all practice sessions.
- **1.19.4** In the event of a tie, riders' second and subsequent best times will be taken into account.
- **1.19.5** The final grid will be published after the warm up session for that class has been completed.

#### 1.20 RACES

**1.20.1** Race Classes

Class	Minimum Distance	Maximum Distance
Superbike (Superstock 1000)	40 miles	60 miles
Supersport	35 miles	55 miles
Superstock 600	30 miles	50 miles
Superstock Limited	20 miles	40 miles

Race distance will be determined by the AMA and MotoAmerica after publication of the calendar. Races declared wet may be reduced by a certain number of laps (at the discretion of Race Direction).

- **1.20.2** The length of a race may only be varied by Race Direction.
- **1.20.3** A visible countdown board will be shown at the finish line to indicate the number of remaining laps in the race.

#### 1.21 START PROCEDURE

- **1.21.1** Normal start procedure
  - a. Only riders who have completed at least one sighting lap and started the warm up lap from the grid will be permitted to start the race from their position published on the final grid. Under no circumstances may they push their motorcycle onto the grid from the pit lane.

#### b. Approximately 15 minutes before the start of all races.

- 1. Pit lane exit opens for sighting lap.
- 2. Green lights on and/or green flags waved 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 or refuel.
- c. 10 minutes before the start of all races pit lane exit closes. Red lights on and/or red flag waved at the pit lane exit.
- d. Riders who do not go on to the grid may start the warm up lap from the pit lane under the instructions of the 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.

- e. When riders reach the grid after the sighting lap(s) they must take up their positions and may be attended by up to five persons one of whom may hold an umbrella. All riders must remove helmets, except in the case of a restarted or wet race. Officials may display panels or cones, at the side of the track, indicating the row of the grid, to assist riders in locating their grid position.
- f. Following participation in the sighting lap, if a rider does not join the grid due to mechanical issues or otherwise, they may elect to change to their back up motorcycle in the case of Superbike or repair their primary motorcycle. Machine changes or repairs can only be made in the pit lane. Under no circumstances may they push their motorcycle onto the grid from the pit lane or ride counter course to proceed to the grid. In this case, riders must start the warm up lap from pit exit and start the race from the back of the grid.
- g. The Race Director may, at this stage, choose to declare the race as "wet" or "dry" and the starter 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".
- h. Riders on the grid may, at this stage, make adjustments to the motorcycle or change tire to suit the track conditions. Trolleys are allowed on the grid. Two air blowers are allowed on the grid. Tire warmers may be used on the grid. Riders may use a generator to power tire warmers and air blowers on the grid.
  - 1. Only one generator per motorcycle may be used. The generator must be of the "hand carried" type and have a maximum output capacity of two kilowatts. The noise limit of the generator is 65 dB/A.
  - 2. Starter engines may also be used on the grid.
  - 3. Generators and starter engines should be located to the rear of the motorcycles.
- i. All adjustments must be completed by the display of the 3 minutes board. After this board is displayed, riders who still wish to make adjustments must push their motorcycle to the pit lane. Such riders and their motorcycles 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. Such riders will start the warm up lap from the pit lane and may start the race from **the back of the grid**. Working on the machine on the grid after the 3 Minute Board is presented may result in a penalty.
- j. Refueling or changing fuel tank on the grid is forbidden.
- k. 5 minutes before the start of the warm up lap display of 5 Minute Board on the grid.
- I. 3 minutes before the start of the warm up lap

- 1. Display of 3 Minute Board on the grid.
- 2. Generators must be disconnected and removed from the grid as quickly as possible. Trolleys and air blowers must be removed from the grid as quickly as possible.
- 3. Immediate removal of tire warmers from motorcycles on the grid.
- 4. All persons except two mechanics per motorcycle, the person holding the umbrella for the rider, the television crew of the host broadcaster and essential officials must leave the grid.
- 5. Riders must put their helmets on.
- 6. No person (except essential officials) is allowed to go on the grid at this point.
- m. 1 minute before the start of the warm up lap display of 1 Minute Board on the grid. All team personal 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.
- n. 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 motorcycle must remove it to the pit lane, under the control of the grid marshals, where he may take further attempts to start it. Such riders may start the warm up lap from the pit lane and must start the race from the back of the grid.

- o. Approximately two minutes before the start of the race
  - 1. Green flag waved to start warm up lap.
  - 2. In the interest of safety, should a rider stall his motorcycle, 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.
  - 3. Superbike riders may retrieve their back up motorcycle and start the warm up lap from pit exit and the race from the back of the grid.
  - 4. The riders will make one lap, at unrestricted speed, followed by a safety car. The safety car will overtake slow riders.
  - 5. 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 pit lane is closed and a marshal will display a red flag and/or red light.
- p. 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.

- 1. Any rider who encounters a problem with his motorcycle on the warm up lap may return to the pit lane and make repairs in the pit lane not in the garage.
- 2. 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.
- 3. 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 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.
- q. A red light will be displayed for between 2 and 5 seconds. The red light will go out to start the race. If the red lights' device is fed by normal power (electricity) supply, it should also be connected to a U.P.S. (Uninterruptable Power System) to provide power to the starting lights' device in the event the primary electric power fails at the moment of the start.
- r. Any rider who anticipates the start or who is deliberately not placed in his starting box will be required to carry out the Ride Through Procedure described in article 1.22.
  - Anticipation of the start (jump start) is defined by the motorcycle moving forward when the red lights are on. Race Direction will be the sole judge of whether an advantage has been gained and decide if a penalty will be imposed and must arrange for the Team to be to be informed of such penalty before 50% of the race is completed. A board may also be displayed in the pit lane indicating the same. The notification of a jump start on the timing monitor is one of "fact".
  - 2. If, after the start of the race, a rider stalls his motorcycle, 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, where accessible, be pushed into the pit lane where his mechanics may provide assistance. Superbike riders may retrieve their back up motorcycle and start from the pit lane.
- s. After the start signal has been given and the last rider has passed the pit exit, the pit exit will be opened. Any riders still in the pit lane may then start the race up until the point when the lead rider has crossed the finish line to complete the first racing lap.
- t. Should there be a problem that might prejudice safety for the start of the warm up lap or the race the Starter will invoke either the Start Delayed Procedure or the Extended Start Delayed Procedure.

- **1.21.2** Start Delayed Procedure
  - a. A red flag is waved from the Starter's rostrum and the red light stays on.
    - 1. The "Start Delayed" board is displayed from the Starter's rostrum and marshals will wave a yellow flag at designated rows of the starting grid.
    - 2. Riders must stay in their grid position with helmets on, engines may be switched off.
    - 3. The machine(s) which caused the start delay will be removed to the pit lane, regardless of what work is needed to restart the machine. If they can be restarted the rider may start the warm up lap from pit lane, and will start the race from the back of the grid.
    - 4. After display of the Start Delayed board, a maximum of 2 mechanics per rider is allowed on the grid. Only tire warmers, stands, and hand-carried tools are allowed, no generators are allowed on the grid.
    - 5. 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) authorized by the Organizers.
  - b. 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).
  - c. Display of 1 Minute Board on the grid.
    - 1. Immediate removal of tire warmers from machines on the grid.
    - 2. The mechanics will, as quickly as possible, assist the rider to start the machine and then vacate the grid.
    - 3. All team personnel leave the grid.
  - d. 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. Such riders may start the warm up lap from the pit lane and will start the race from the back of the grid.

e. 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, where accessible, be pushed into the pit lane where his mechanics may provide assistance.

- f. The race distance will be reduced by one lap if the Start Delayed signal is after the warm up lap only. Any person who, due to his behavior on the grid is responsible for a "start delayed" may be further penalized.
- **1.21.3** Extended Start Delayed Procedure
  - a. A red flag is waved from the Starter's rostrum and the red light stays on.
  - b. The "Start Delayed" board is displayed from the Starter's rostrum and marshals will wave a yellow flag at designated rows of the starting grid.
  - c. Engines must be switched off.
  - d. After display of the Start Delayed, a maximum of 2 mechanics per rider are allowed on the grid to assist riders in removing their bike to the pit area.
  - e. Refueling is allowed in the pit lane. Riders must be off the bike during refueling. The ignition must be off and the motorcycle must be on a rear stand before refueling is permitted to start. A crew member must be standing by with a fire extinguisher with the pin pulled and the nozzle aimed at the motorcycle. No electrical devices such as battery chargers, fans, or tire warmers may be plugged in during any re-fueling operations.

#### **1.21.4** Restart Procedure (Quick Start)

When a race is stopped, riders must return to the pit lane, unless otherwise instructed by officials. If the race is to be re-started, minor repairs may be carried out. The following procedure will take place:

- a. Upon arrival in the pit lane, riders may make adjustments to their motorcycle, refueling is permitted in the pit lane. (Prior to the start of the race, teams should ensure that all necessary equipment is located in the pit lane service area in a safe position).
- b. When all riders have entered the pit lane the Race Director will announce the time remaining to the re-opening of the pit lane and the race distance.
  - 1. The duration between the announcement and the actual opening of the pit exit will be a minimum of 5 minutes.
  - 2. The time remaining to the opening of the pit exit will be displayed on timing screens and on the starting grid countdown clock.
  - 3. The rider should avail himself of his new grid position from the classification displayed on the timing screen or from officials.
- c. When the time period has elapsed, the pit lane exit will be opened for **SIXTY SECONDS**. Riders will make one lap at unrestricted speed to the starting grid, followed by a Safety Car. Any rider delaying the progress of the sighting lap will be overtaken by the Safety Car. Any rider arriving behind the Safety Car must go into the pit lane. Such riders will have to start the **warm-up lap** from the pit lane.

- d. All riders will arrive back on the starting grid, and stop, with engines running, no adjustments may be made. Any rider encountering difficulties on the **sighting lap** must enter the pit lane.
- e. Upon arrival back at the starting grid each rider may be directed to their grid position by ONE mechanic only (without tools). and the normal start procedure will be followed from 1.21.1 (n) as described above with the start signal given in the normal manner.
- f. After the start signal has been given and the last rider has passed the pit exit, the pit exit will be opened. Any riders still in the pit lane may then start the race up until the point when the lead rider has crossed the finish line to complete the first racing lap.

# 1.21.5 Accelerated Start Procedure

The start procedure may be accelerated by the Race Direction. This will be notified to teams on the timing monitor and by the display of the boards indicating the time remaining to the closure of the pit lane exit and to the start of the warm-up lap. This will be used in principle when there are time restraints due to television coverage or the circuit has limitations on time.

# 1.22 RIDE THROUGH PROCEDURE

- a. During the race, the rider will be requested to ride through the pit lane, stopping is not permitted. He may then rejoin the race.
- b. The rider must respect the speed limit (Art. 1.24.m) 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 rider will be shown the black flag and will be disqualified.
- c. 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.
- d. 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 and will be disqualified.
- e. A yellow board (100cm horizontal X 80 cm vertical) displaying the rider's number (black color) will be shown at the finish line and the information will also be displayed on the time keeping monitors.
- f. 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.
- g. In the case where the organization 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.

#### 1.23 "WET" AND "DRY" RACES

All races will be categorized 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.

#### 1.23.1 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 tires.

#### 1.23.2 Wet Races

A race classified as wet, usually commenced in varying or wet conditions, will not be interrupted for climatic reasons except for extraordinary events and riders who wish to change tires or make adjustment must enter the pits and do so during the actual race.

- **1.23.3** In all cases where the first race is stopped for climatic reasons, then the restart will, automatically, be a "wet" race.
- **1.23.4** Wet Sighting Laps
- **1.23.4.1** SCENARIO A Wet Sighting Laps (Prior to the starting procedure)
  - a. If all the official practices, the race day warm-up (and any previous races for the class during the event) are dry and the race is declared Wet, prior to the starting procedure.
  - **b.** A time and duration for "Wet Sighting Laps" will be published. **The** duration may be specified as a time or number of laps.
    - 1. Display of boards from 5 Minutes, counting down to the start of Wet Sighting Laps.
    - 2. Pit lane exit open start of Wet Sighting Laps.
    - 3. Riders must pass through the pit lane to make multiple laps.
  - c. At the end of the Wet Sighting Laps period the pit lane exit will be closed and riders should complete their current lap stopping on the starting grid. Any rider still in the pit lane after the pit lane exit has closed must start the warm up lap from pit lane exit and the race from the back of the grid. Under no circumstances may they push their motorcycle onto the grid from the pit lane.
  - d. A normal countdown to the start of the warm up lap will be commenced. There will be a minimum period of 5 minutes between the closing of the pit lane exit and the display of the 5 Minutes board on the grid.
  - e. Any further work on the grid must be completed by the display of the 3 Minute board.
  - f. The race distance may be reduced accordingly.

- g. To give riders more information about when the pit lane exit closes, a marshal will be positioned at the pit lane <u>entrance</u> for the duration of the start procedure with the following boards:
  - "1" (to indicate that the pit lane exit will be closed within 1 minute).
  - "0" (to indicate that the pit lane exit is closed).
- h. Fuel may be added in the pit lane with the following restrictions:
  - 1. Riders must be off the bike.
  - 2. The ignition must be off and the motorcycle must be on a rear stand before fuel is added.
  - 3. A crew member must be standing by with a fire extinguisher with the pin pulled and the nozzle aimed at the motorcycle.
  - 4. No electrical devices such as battery chargers, fans, or tire warmers may be in use.
- **1.23.4.2** SCENARIO B Wet Sighting Laps (After pit exit closed prior to warm up lap)
  - a. If all the official practices, the race day warm-up (and any previous races for the class during the event) are dry and the Race is declared Wet, during the starting procedure, <u>after the pit lane exit has closed, and before the start of the warm up lap</u>.
  - b. A time and duration for "Wet Sighting Laps" will be published. The duration may be specified as a time or number of laps.
    - 1. Display of boards from 5 Minutes, counting down to the start of Wet Sighting Laps.
    - 2. Tires may be changed on the grid.
    - 3. All work must be completed by, and all mechanics must have vacated the grid by the display of the 30 SECONDS board.
    - 4. Display of Green Flag from the starter's rostrum start of Wet Sighting Laps from the grid.
    - 5. Once the riders have departed from the starting grid mechanics may return.
    - 6. Riders must pass through the pit lane to make multiple laps according to the time remaining. As a minimum procedure it will be one pass through the pit lane.
  - c. At the end of the Wet Sighting Laps period the pit lane exit will be closed and riders should complete their current lap stopping on the starting grid. Any rider still in the pit lane after the pit lane exit has closed must start the warm up lap from pit lane exit.
  - d. A normal countdown to the start of the warm up laps will be commenced. There will be a minimum period of 5 minutes between the closing of the pit lane exit and the display of the 5 Minutes board on the grid.
  - e. Any further work on the grid must be completed by the display of the 3 Minute board.

- f. The race distance may be reduced accordingly.
- g. To give riders more information about when the pit lane exit closes, a marshal will be positioned at the pit lane entrance for the duration of the start procedure with the following boards:
  - "1" (to indicate that the pit lane exit will be closed within 1 minute).
  - "0" (to indicate that the pit lane exit is closed).
- h. Fuel may be added in the pit lane with the following restrictions:
  - 1. Riders must be off the bike.
  - 2. The ignition must be off and the motorcycle must be on a rear stand before fuel is added.
  - 3. A crew member must be standing by with a fire extinguisher with the pin pulled and the nozzle aimed at the motorcycle.
  - 4. No electrical devices such as battery chargers, fans, or tire warmers may be in use.

# 1.24 BEHAVIOR DURING PRACTICE AND RACE

- a. Riders must obey the flag signals, the light signals, and the boards which convey instructions. Any infringement to this rule will be penalized according to the provisions of article 1.24b.
- b. Riders must ride in a responsible manner which does not cause danger to other competitors or participants, either on the track or in the pit-lane. Any infringement of this rule may be penalized with one of the following penalties:
  - fine
  - drop of position(s)
  - ride through
  - time penalty
  - drop of any number of grid positions at the rider's next race
  - disqualification
  - withdrawal of Championship points
  - suspension or any other penalty at the discretion of Race Direction
- c. Riders must not tour the track. Touring is defined as riding in a manner not compatible with general safety. This includes being on the racing line and not attempting to produce a fast lap time. A penalty may be imposed on any rider found to be touring. If marshals report that a rider s touring and this is collaborated by video or comparing consecutive sector times, then automatic penalties will apply as follows:
  - 1. During practice
    - First offence: official warning

- Second offence: fastest qualifying session time disallowed
- Third offence and subsequent offenses: next fastest qualifying session times disallowed in sequence
- 2. During race
  - exclusion
  - ride-through
  - time penalty and/or fine, depending on the circumstances
- 3. Persistent acts of touring will be deemed more serious and will be penalized accordingly.
- d. 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 penalized by the cancellation of the lap time concerned and during the race, by a drop of position(s) 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 at the discretion of the Race Direction.
- e. 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 motorcycle and holding it whilst any repairs or adjustments are made. The marshal may then assist him to re-start the motorcycle.
- f. If the rider intends to retire, then he must park his motorcycle in a safe area as indicated by the marshals.
- g. If the rider encounters a problem with the motorcycle 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 motorcycle in a safe place as indicated by the marshals.
- h. Riders who are returning slowly to the pits for remedial work should ensure that they travel as far as possible off the racing line.
- i. Riders who stop their engines in the pits may be assisted to re-start their motorcycle by the mechanics.
- j. Riders are not allowed to transport another person on their motorcycle or to be transported by another rider on his motorcycle (exception: Another rider or by another rider after the checkered flag or red flag).
- k. 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.
- I. No signal of any kind may pass between a moving motorcycle and the rider's team, or anyone connected with the motorcycle's team, entrant

or rider, except for the signals of the timekeeping transponder, lap trigger, GPS, legible messages on a pit board, or body movements by the rider or team. Onboard TV camera signals are allowed, but only when such signals are for the purposes of and managed by the Championship promoter.

- m. Riders may be required to carry "on-board" cameras on their motorcycle. The cameras and associated equipment must be carried during all practice sessions and the race.
  - 1. Riders required to carry "on-board" cameras will receive an adjustment to the minimum weight equal to the weight of the camera and any mounting equipment.
  - 2. 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.

# 3. The video recorded on the cameras is the sole property of MotoAmerica and must not be downloaded or copied.

- n. A speed limit of 60 km/h (approximately 37 mph) 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.
  - 1. Any rider found to have exceeded the limit during the practice will be subject to a fine of 150 USD.
  - 2. Any rider who exceeds the pit lane speed limit during a race will be penalized with a ride through.
  - 3. The Race Direction must communicate the offence to the pit of the rider after having received the information from the Official in charge.
- o. Stopping on the track during practices and races is forbidden.
- p. Practice Starts
  - 1. During the practice sessions, Superpole and warm ups, practice starts are permitted.
  - 2. When it is safe to do so, at the pit lane exit before joining the track.
  - 3. After passing the checkered flag at the end of practice sessions, Superpole 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.
  - 4. Any rider found to have infringed this rule will be subject to an instant fine of 150 USD. Further penalties may be applied.
- q. If the winning rider wishes to parade a flag, he must ride to the side of the racing surface to collect the flag and then rejoin the circuit when it is safe to do so.

- r. After the checkered flag, riders riding on the track must wear a safety helmet until they stop on the pit lane / parc fermé.
- s. It is not permitted to ride racing motorcycles within the circuit other than in the pit lane or on the track.
- t. Any rider or team whose motorcycle spills oil on the track causing interruption of practice, qualifying, warm up or race twice in the same event may be penalized with one of the following penalties:
  - a. fine
  - b. disqualification
  - c. withdrawal of Championship points
  - d. suspension or any other penalty at the discretion of Race Direction
- u. Any rider who enters the paddock during a race will be considered to have finished the race and may NOT re-enter the race.
- v. All riders and team members must conduct himself or herself at all times in an appropriate, morally correct manner and in a manner to advance the positive goodwill and image of the AMA, FIM North America and MotoAmerica.

#### 1.25 PIT STOPS DURING A RACE

- a. Riders may enter the pit lane (but must not cross the line into the rider's paddock area) during the race.
- b. Refueling is strictly prohibited. Any infringement of this rule will be penalized with a disqualification.
- c. Any rider who enters the paddock, the garage or cold side of the pit lane will be considered to have finished the race and may not re-enter the race or take part in any re-started race.

#### 1.26 FINISH OF A RACE AND RACE RESULTS

- **1.26.1** When the leading rider has completed the designated number of laps for the race, he will be shown a checkered flag by an official standing at the finish line, behind a first line of protection. The checkered flag will continue to be displayed to the subsequent riders.
  - a. When the checkered flag is shown to the leading rider, no other rider will be permitted to enter the track from the pit lane.
  - b. As soon as the checkered flag is shown to the leading rider, the red light will be switched on at the pit lane exit and a marshal showing a red flag will stand in the pit lane exit.
  - c. 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 checkered 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 checkered flag.

- **1.26.2** In case of a photo-finish between two, or more, riders, the decision shall be taken in favor 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.
- **1.26.3** The results will be based on the order in which the riders cross the line and the number of laps completed.
- **1.26.4** To be counted as a finisher in the race and be included in the results a rider must:
  - Complete 75% of the race distance.
  - Cross the finish line on the race track (not in the pit lane) within five minutes of the race winner. The rider must be in contact with his motorcycle.
- **1.26.5** The riders classified in the first three positions in the race will be escorted by officials, as quickly as possible, to the podium for the awards ceremony. A second podium awards ceremony will be provided for the first three positions from the Superstock 1000 and the Superstock 600 class participants after each associated race. Participation in the podium ceremony by these riders is compulsory.

#### 1.27 INTERRUPTION OF A RACE

- **1.27.1** If the Race Direction decides to interrupt a race, then red flags will be displayed at the finish line and at all marshals' posts and the red lights will be switched on around the circuit. Riders must immediately slow down and return to the pit lane.
  - a. Any rider who enters the paddock, the garage or cold side of the pit lane will be considered to have finished the race and may not re-enter the race.
  - b. 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.
  - c. <u>Exception</u>: if the race is interrupted after the checkered flag, the following procedure will apply:
    - 1. For all the riders to whom the checkered 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 checkered 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.

- d. In the case of 1.27.4 at the time the red flag is displayed, riders who are not actively competing in the race will not be classified. This includes riders that have crashed, experienced a mechanical failure, are on the pit lane or previously retired from the race.
- **1.27.2** 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 new race will be run according to the article 1.28. 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.
- **1.27.3** If three laps 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 re-started according to article 1.28. If it is found impossible to re-start the race, then the results will count and half points will be awarded in the Championship.
- **1.27.4** If the results calculated show that two-thirds of the race distance rounded down to the nearest whole number of laps have been completed by the leader of the race and by all other riders on the same lap as the leader, then the race will be deemed to have been completed and full Championship points will be awarded.

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

- **1.28.1** If a race has to be re-started, then it will be done as quickly as possible, consistent with track conditions allowing. As soon as the riders have returned to the pits, the Race Director will announce a time to begin which, conditions permitting, should not be later than 10 minutes after the initial display of the red flag.
- **1.28.2** The results of the first race must be available to teams before the second part of a race can be started.
- **1.28.3** The Race Director will decide and announce whether the Normal Start procedure (1.21.1) or the Quick Start Procedure (1.21.4) will be used.
- **1.28.4** Conditions for the re-started race will be as follows:
  - a. In the case of situation described in 1.27.2 (less than three laps completed) above:
    - 1. All riders may re-start.
    - 2. Motorcycles may be repaired. Refueling is permitted.
    - 3. Tire changes are not permitted unless the Race Director announces a change to the race status (i.e. Dry/Wet), or the Technical Director authorizes an exceptional tire change due to a verifiable technical problem. In the case of an exceptional tire change, the rider must start the restarted race from the back of the grid.

- 4. The number of laps will be two-thirds of the original race distance rounded down to the nearest whole number of laps.
- 5. The grid positions will be as for the original race.
- b. In the case of the situation described in 1.27.3 (three laps or more and less than two-thirds completed) above:
  - 1. Only riders who are classified as finishers (completed 75% of the first race distance) in the first race may re-start.
  - 2. Any rider who has crashed in the first part of the race who is eligible to take part in the re-start must be passed fit by a Medical Officer if there is suspicion that an injury has been sustained. The Race Director's decision is final in requiring any rider undertake a check to ascertain fitness to ride.
  - 3. Motorcycles may be repaired, and cleared by a Technical Official.
  - 4. Refueling is permitted.
  - 5. Tire changes are not permitted unless the Race Director announces a change to the race status (i.e. Dry/Wet), or the Technical Director authorizes an exceptional tire change due to a verifiable technical problem. In the case of an exceptional tire change, the rider must start the restarted race from the back of the grid.
  - 6. 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 one third of the original race distance rounded up. The decision is at the discretion of Race Direction respecting schedules.
  - 7. The grid position will be based on the finishing order of the first race.
  - 8. The final race classification will be established according to the position and the 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. 1.26.4 will apply.
- **1.28.5** 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. 1.28.4, with the race distance and results defined as follows:
  - a. If the re-started race is interrupted when 1/3 race distance or more has been completed, the race will be deemed to have been completed and full Championship points awarded. The race classification will be according to Art. 1.28.4.
  - b. If the re-started race is interrupted when less than 1/3 race distance has been completed, the race would be re-started a further time if possible, for the same number of laps as the first re-start.
  - c. If that further re-started race (third race) is interrupted when less than 1/3 race distance has been completed, Race Direction will determine if it is

practical to re-start the race and will define the number of laps to be completed. If it is not possible to re-schedule the race 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 1/3 race distance 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 1/3 race distance or more, 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 program as necessary.

## 1.29 CHECK AREA

- a. At the end of the race, or the final part of a race that has been interrupted, all the classified motorcycles will be directed to a compulsory check area (parc fermé) pending inspection by the Technical Stewards or potential protests. It is the responsibility of the teams and riders to ensure that the machine is in the parc fermé. Motorcycles will normally be released from the parc fermé 30 minutes after the finish of the race.
- b. For all races the top three classified finishers will be held at the podium area, the remaining machines will be directed to the parc fermé. This includes the Superstock 1000 race that is conducted in conjunction with the Superbike races.
- c. Following race one of a double header that takes place on the same day, the remaining riders will return to their pit areas where the tire stickers will be inspected by the **MotoAmerica Technical Director** or his appointed staff, once confirmed correct the teams will be allowed to remove the wheels from the machines. Data can be downloaded from the data logger. No other work may be carried out until the time for a Technical protest notification has expired (15 minutes after the end of Race 1) (see art 3.4.3). **Machine must remain fully visible during this period.**
- d. Should a team have a Technical Protest lodged against them after Race1 (in a same day double header event) then they have three options:
  - 1. Immediate examination time allowing.
  - 2. Replacement of suspected parts, with the replaced parts impounded for examination later.
  - 3. Checking of all seals, use the machine 'as is' in Race 2 and for any infractions found then penalties will be applied to BOTH races.

## 1.30 CHAMPIONSHIP POINTS AND CLASSIFICATION

- **1.30.1** Riders and Constructors will compete for the FIM North America MotoAmerica AMA Road Racing Championship.
- **1.30.2** For riders, the points will be those awarded to finishers in each race.

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

## 1.30.4 Championship Points

- a. Superbike class championship points awarded for the combined Superbike and Superstock 1000 Race will be awarded based on the finishing position listed on the scale below, irrespective of class.
- b. Supersport class championship points awarded for the combined Supersport and Superstock 600 Race will be awarded based on the finishing position listed on the scale below, irrespective of class.
- c. Superstock 1000 championship points for the combined Superbike and Superstock 1000 Race will be awarded based on the finishing position listed on the scale below, for the Superstock 1000 class only.
- d. Superstock 600 championship points for the combined Supersport and Superstock 600 Race will be awarded based on the finishing position listed on the scale below, for the Superstock 600 class only.
- e. KTM RC Cup championship points will be awarded on the finishing position listed on the scale below.

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

- **1.30.5** All races will count for the FIM North America MotoAmerica AMA Road Racing Championship classification.
- **1.30.6** In the event of a tie in the number of points, the final positions will be decided on the basis of the number of best results in the races (number of first places, number of second places etc.). In the event that there is still a tie then, the date in the Championships at which the highest place was achieved will be taken into account with precedence going to the latest result.

- **1.30.7** In the case where a rider participates on different motorcycles, it is the make of the motorcycle with which he obtained the most points that will appear next to his name in the final classification, without, however, modifying the calculation for the Constructors' classification.
- **1.30.8** The Champions in each category are obliged to attend an official awards ceremony.

## 1.31 DEPOSITS IN CASE OF MOTORCYCLE CONTROL FOLLOWING A PROTEST

- a. The deposit in case of dismantling and reassembling a motorcycle to measure the cylinder capacity, following a protest, is 200 USD (material included). The deposit in case of partial or complete dismantling of an engine or gearbox is 350 USD.
- b. If the party who makes the protest is the losing party, the deposit shall be paid to the winning party.
- c. If the party who makes the protest is the winning party, the deposit shall be reimbursed.

## 1.32 DEPOSITS FOR FUEL CONTROLS FOLLOWING A PROTEST

- a. All requests for fuel control following a protest or an appeal must be accompanied by a deposit of 750 USD paid to FIM North America.
- b. After the last control:
  - the winning party will have its deposit reimbursed.
  - the losing party will have to pay the costs of all the controls carried out after deduction of deposits which it has already paid.

## 1.33 NON-PARTICIPATION IN AN EVENT

- a. Any rider who enters an event must inform the Organizer if, subsequently, he decides not to participate in the event. A rider who has submitted an entry form and fails to participate and fails to inform seven days prior to the event will be reported by the Event Management Committee to FIM NORTH AMERICA, who may impose a fine of up to 500 USD.
- b. Upon receipt of the Event Management Committee report, FIM North America will send a letter to the rider or the rider's FMN asking the reasons for the non-participation; a reply should be sent within 15 days at the latest and a decision will be taken regarding the penalty.
- c. A suspension could also be pronounced against a rider who takes part in another event on the same day.

## 1.34 RULES UNDER CONSIDERATION FOR 2017

.16.4 Flag Color (Under consideration for 2017)

The pantones for the color are as follows:

- Orange: Pantone 151C
- Black: Pantone Black C
- Blue: Pantone 298C
- Red: Pantone 186C
- Yellow: Pantone Yellow C
- Green: Pantone 348C
- .16.5 Riders' number board (Under consideration for 2017)

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.

1.20.2 Superbike and Superstock 1000 races (Under consideration for 2017)

A race will not be interrupted for climatic reasons except for extraordinary events and riders who wish to change motorcycles, change tires or make adjustments must enter the pits and do so during the actual race.

- 1.22 PIT STOPS during a Race (Under consideration for 2017)
  - c. For the Superbike and Superstock 1000 class only: (Under consideration for 2017)
    - 1. Riders who wish to change tires in the pit lane must stop in front of their pit area and turn off the engine.
    - 2. The use of power tools (maximum two at the same time, electric or pneumatic) is allowed.
    - 3. Stands or lifts must operate manually and cannot be power assisted.
    - 4. The use of an auxiliary starter and/or of a booster battery is allowed to restart the motorcycle.
    - 5. A marshal will monitor the situation and report any infringement of this rule which will be penalized by the Race Direction with a ride through.
    - 6. Intervention time for a pit stop for tire(s) change is fixed to 30 seconds plus the necessary time to cross pit lane from entrance to exit (set time). This intervention will be monitored by the Official timekeeping company. Any rider whose pit stop is below the set time will be penalized by the Race Direction with a 10 second plus the time under the intervention time penalty.
    - 7. During the pit stop, adjustments to the motorcycle are allowed.
    - 8. Pit stops without a tire change will not be subject to this rule.

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## 2.0 TECHNICAL REGULATIONS

Amendments to the technical regulations may be made by the MotoAmerica Commission at any time.

During practices: If a motorcycle is found not to be in conformity with the technical regulations during or after the practices, its rider will be given a penalty for the event such as a ride-through, a drop of any number of grid positions for the next race, suspension and/or withdrawal of Championship or Cup points.

After a Race: If a motorcycle is found not to be in conformity with the technical regulations after a race, its rider will be given a penalty such as a time penalty, or disqualification

#### 2.1 INTRODUCTION

Motorcycles for the MotoAmerica Superbike Championships must be motorcycles with a valid road homologation in one of the following areas: USA, EU or Japan.

These motorcycles must be available for sale to the public in the shops and the dealerships representing the manufacturer in at least one of the above areas before the third event of the current Championship to be allowed to be used in the remaining Championship events.

#### 2.2 CLASSES

The production based racing classes will be designated by engine capacity.

#### 2.3 GENERAL ITEMS

### 2.3.1 Materials

The use of titanium in the construction of the frame, the front forks, the handlebars, the swing arms, the swing arm spindles and the wheel spindles is forbidden. For wheel spindles, the use of light alloys is also forbidden. The use of titanium alloy nuts and bolts is allowed.

- a. Titanium test to be performed on the track: Magnetic test (titanium is not magnetic).
- b. The 3 % nitric acid test (titanium does not react. If metal is steel, the drop will leave a black spot).
- c. Specific weight of titanium alloys is between 4.5 and 5.0 kg/dm<sup>3</sup> vs. over 7.48 kg/dm<sup>3</sup> of steel and can be ascertained by weighing the part and measuring its volume in a calibrated glass filled with water (intake valve, rocker, connecting rod, etc.)
- d. In case of doubt, the test must take place at a Materials Testing Laboratory.

## 2.3.2 Handlebars

- a. Exposed handlebar ends must be plugged with a solid material or rubber covered.
- b. The minimum angle of rotation of the steering on each side of the center line or mid position must be of 15° for all motorcycles.
- c. Whatever the position of the handlebars, the front wheel, tire and the mudguard must maintain a minimum gap of 10 mm.
- d. Solid stops, (other than steering dampers) must be fitted to ensure a minimum clearance of 30 mm between the handlebar with levers and the tank, frame or other bodywork when on full lock to prevent trapping the rider's fingers (see diagrams A, B, C).
- e. Repair by welding of light alloy handlebars is prohibited.
- f. Composite handlebars are not allowed in any class.

## 2.3.3 Control levers

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

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

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

## 2.3.4 Wheel and rims

- a. Any modification to the rim or spokes of an integral wheel (cast, molded, riveted) as supplied by the manufacturer or of a traditional detachable rim other than for spokes, valve or security bolts is prohibited, except for tire retention screws sometimes used to prevent tire movement relative to the rim. If the rim is modified for these purposes bolts, screws etc., must be fitted.
- b. The distance between the rim walls is measured inside the flange walls in accordance with ETRTO.

## 2.3.5 Tires

- a. Tires may be replaced from those fitted to the homologated motorcycle.
- b. The tread pattern must be made exclusively by the manufacturer when producing the tire.
- c. As a safe minimum, the depth of the tire tread over the whole pattern at pre-race control must be at least 2.5 mm.

- d. Tires which at the preliminary examination have a tread depth of less than 1.5 mm are considered as non-treaded tires and the restrictions applying to slick tires will then apply to them.
- e. The surface of a slick tire must contain three or more hollows at 120° intervals or less, indicating the limit of wear on the center and muster areas of the tire. The rider shall not enter the track if at least 2 of these indicator hollows are worn on different parts of the periphery.

## 2.3.6 The use of tire warmers is allowed.

#### 2.3.7 Use of tires

- a. The competitors shall only use tires distributed by the Official Supplier during the event.
- b. For each event, all tires must be made of the same quality and shall be strictly identical.
- c. All tires to be used must be easily identifiable with a color marking or a numerical system, to be applied by the Official Supplier at the time of manufacturing.
- d. The Official Supplier shall provide the Technical Director with a written description of the markings and the general characteristics of the different types of tires.
- e. The Technical Director may ask the Official Supplier to deliver tire samples to him the day prior to the start of the official practice. Any modification of the tread pattern by the Official Supplier is not permitted after the start of the practices.
- f. During free practices, qualifying practices, Superpole for Superbike, warm up session and races, front and rear tires may be required to be marked with tire stickers (see Art. 2.4.7/ 2.5.7/ 2.6.7).
- g. The Technical Director may, at his discretion, require the exchange of one (1) or more competitors' tires for a tire sample under his control. The tires exchanged remain under his control and he can exchange them for the tires of another competitor.
- h. An appropriate identification will be applied on the left side of each tire by the entrant.
- i. No tires marked for one event may be used during another event.

## 2.3.7.1 Tire allocations per class

The MotoAmerica technical director has the ability to modify the tire allotments based on the official schedule, this modification will be noted in the event supplementary regulations. During a normally scheduled two race platform event the tire allotments will be as follows:

Class	Front	Rear
Superbike	7	9
Superstock 1000	5	6**
Supersport	6	8
Superstock 600	4	5
KTM RC Cup	2	2

\*\* *Superstock 1000 only*: One extra rear will be allotted to those competitors who participate in both Superpole 1 and Superpole 2.

## 2.3.8 Ballast

- a. The use of ballast is allowed to stay over the minimum weight limit. The use of ballast must be declared to the Technical Director at the preliminary checks.
- b. The ballast must be made of solid metallic piece/s, firmly and securely connected, either through an adapter or directly to the main frame or engine, with a minimum of 2 steel bolts (min. 8 mm diameter, 8.8 grade or over). Other equivalent technical solutions must be submitted to the MotoAmerica Technical Director for his approval.
- c. Fuel in the fuel tank can be used as ballast. Nevertheless, the verified weight may never fall below the required minimum weight.

#### 2.3.9 Timekeeping instruments

- a. All motorcycles must have a correctly positioned timekeeping transponder. The transponder must be approved by the official Timekeeper. It must be fitted avoiding being shielded by carbon bodywork. It is the team's responsibility to ensure that the transponder is working properly and any machine without a working transponder is not allowed on the circuit.
- b. Correct attachment of the transponder bracket consists of a minimum of tie-wraps, but preferably by screws or rivets. Any transponder retaining clip must also be secured by a tie-wrap. Velcro or adhesive alone will not be accepted. The transponder must be working at all times during practices and races, also when the engine is switched off.

## 2.4 SUPERBIKE TECHNICAL SPECIFICATIONS

The following rules are intended to give freedom to modify or replace some parts in the interest of safety, research and development and improved competition between various motorcycle concepts.

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

- a. If a change to a part or system is not specifically allowed in any of the following articles, then it is forbidden.
- b. Superbike motorcycles require an FIM homologation (see FIM Homologation procedure for Superstock, Supersport and Superbike motorcycles). All motorcycles must comply in every respect with all the requirements for road racing as specified in these Technical Regulations, unless they are already equipped as such on the homologated model.
- c. Once a motorcycle has obtained the homologation, it may be used for racing in the corresponding class for a maximum period of 8 years (MotoAmerica will accept machines homologated as either Superbike or Superstock 1000). Or until such time that the homologated motorcycle is disqualified by new rules or changes in the technical specifications of the corresponding class.
- d. The appearance from the front, rear and the profile of Superbike motorcycles must (except when otherwise stated) conform in principle to the homologated shape (as originally produced by the manufacturer). The appearance of the exhaust system is excluded from this rule.

## 2.4.1 Motorcycle specifications

All parts and systems not specifically mentioned in the following articles must remain as originally produced by the manufacturer for the homologated motorcycle.

## 2.4.2 Engine configurations and displacement capacities

The following engine configurations comprise the Superbike class.

<ul> <li>Over 750cc up to 1000cc</li> </ul>	3 and 4 cylinder
<ul> <li>Over 850cc up to 1200cc</li> </ul>	2 cylinder

The displacement capacity bore and stroke must remain at the homologated size. All machines must be normally aspirated.

#### 2.4.3 Balancing various motorcycle concepts

a. In order to equalize the performance of motorcycles with different engine configurations, an air restrictor may be applied according to their respective racing performances.

- b. This handicap is applied only to the '1200cc 2-cylinder' motorcycles.
- c. A new 2-cylinder entry will not be included in the 'Balancing various motorcycle concepts' rules until the performance is proven during the first two years of use in the MotoAmerica Superbike Championship. In the case that a new 2-cylinder entry wins a race in the Dry in the first year, restrictors will be applied from the start of the second year.
- A new 2 cylinder entry is considered an entry by a new manufacturer to the Championship – not a new model of machine from an existing manufacture.
- e. The air restrictor handicap will be applied according to the relevant provisions described in Art 2.4.3.3: the size of the intake ports will be changed by means of air restrictors. These changes to the size of the air restrictor diameter will be applied in 2mm steps.

# f. Each racing season will begin with the same balancing level as the preceding season finished.

g. The MotoAmerica Permanent Bureau can at any time modify the handicap system to ensure fair competition.

## 2.4.3.1 Balancing Calculation

- a. After three events, the best manufacturers of the 1000cc 4 cylinders and 1200cc 2 cylinders will be selected according to the sum of the points of the best two riders for each manufacturer.
- b. By taking the race points of the riders of the selected 1000cc 4 cylinder manufacturer and of the selected 1200cc 2 cylinder manufacturer in each race, an average will be calculated after every event, the 'event average'.
  - 1. If in any of the races there is only one finisher from one of the selected manufacturers, the *'event average'* will be calculated from the first rider of each selected manufacturer in each race.
  - 2. No 'event average' points will be calculated if one of the selected manufacturers has no finishers. The 'event average' will then be calculated based on the results of the other race from the same event.
  - 3. If neither race has any finishers from one of the selected manufacturers, the event will not be considered.
- c. 'Wet' races (as declared by the Race Direction) are not taken in account for the calculation of an 'event average'.

## 2.4.3.2 Air restrictors for 1200cc 2 cylinders

a. <u>Application</u>: Only the 1200cc 2-cylinder engines will be fitted with air restrictors. Should a restrictor be required then the first restrictor size to be installed will be equivalent to a Ø 52 mm circular area Air restrictor size will be adjusted (in steps equivalent to a change of 2

mm in diameter or equivalent circular area, upwards to Ø 52 mm and then to no restrictor at all, downwards to a minimum of Ø 46 mm), if needed during the Championship, as described below in Art. 2.4.2.4

- b. <u>Definition</u>: An air restrictor is a metallic device with a tract of constant controlled section and which is placed in the induction tract between the throttle body and the cylinder head. The length of the controlled tract must be at least 3 mm. No air and/or air-fuel mixture to the engine must by-pass the restrictor. No part of the fuel injection system (injector, needle, slide, etc.) shall extend through the restrictor.
- c. The Manufacturer must supply the FIM/MotoAmerica with 10 sets of plug-calibers (-gauges) to check the diameter of the air restrictor when using one of the prescribed sizes (Ø 52, Ø 50, Ø 48, Ø 46 mm).
- d. A Manufacturer may have a non-circular air restrictor, provided that the area of this restrictor is equivalent to the area of a nominal circular restrictor. In this case, the Manufacturer must supply the FIM/MotoAmerica with 10 sets of plug-calibers (- gauges) for measuring the restrictor during the technical verifications.
- e. The FIM/MotoAmerica may also request the Manufacturer to supply a cut section of the air restrictor(s) in each of the prescribed sizes.

## 2.4.3.3 Air restrictor adjustment

The minimum air restrictor size is increased or decreased in 2 mm steps in diameter of equivalent circular area, according to following procedure:

- a. If the gap in the average value of 'event averages', calculated as described in Art. 2.4.3.3 is more than 5 points in favor of the 1000cc 4- cylinder manufacturer, and if a rider of a 1000cc 4-cylinder motorcycle is leading the riders' MotoAmerica Superbike Championship standings at that time: then the initial air restrictor size of all the 1200cc 2-cylinder motorcycles will be increased by one size, to a Ø 52 mm (or the equivalent area 2123.7mm<sup>2</sup>), or as a last step, the air restrictor will be withdrawn.
- b. If the resulting gap of the average value of 'event averages', calculated as described in Art. 2.4.3.3, is more than 5 points in favor of the 1200cc 2- cylinder manufacturer, and if a rider of a 1200cc 2- cylinder motorcycle is leading the riders' MotoAmerica Superbike Championship standings at that time: then, the initial air restrictor size of the 1200cc 2-cylinder manufacturers will be reduced by one size, to a Ø48 mm (or the equivalent area 1809.6 mm<sup>2</sup>) or, as last step, to a minimum of Ø46 mm (or the equivalent area 1661.9 mm<sup>2</sup>).
- c. If the air restrictor size is not updated, then the results of three more events will be considered and the best manufacturers for each engine configuration will be updated considering the sum of points of the best two riders from each selected manufacturer over six events, and

updated every third event. A new average value of the 'event averages' will be calculated over six events, until the points gap of the average value of the 'event averages' from the last minimum weight update is higher than 5.

d. The MotoAmerica Technical Director will inform all the teams about the possible air restrictor size adjustments, within 24 hours from the end of the last event, where the average value of the 'event averages' was calculated. The new air restrictor size adjustments must be applied from the first following event.

#### 2.4.4 Minimum weight

**The minimum weight will be:** All machines 168kg (370.5lbs)

- a. At any time during the event, the weight of the whole motorcycle (including the tank and its contents) must not be less than the minimum weight.
- b. There is no tolerance on the minimum weight of the motorcycle.
- c. During the final technical inspection at the end of each race, the selected motorcycles will be weighed in the condition they finished the race, and the established weight limit must be met in this condition. Nothing may be added to the motorcycle. This includes all fluids.
- d. During the practice and qualifying sessions, riders may be asked to submit their motorcycle to a weight control. In all cases, the rider must comply with this request.
- e. The use of ballast is allowed to stay over the minimum weight limit and may be required due to the handicap system. The use of ballast and weight handicap must be declared to the MotoAmerica Technical Director at the preliminary checks.

#### 2.4.5 Numbers and number plates

The sizes for all the front numbers are:	Minimum height: Minimum width: Minimum stroke: Minimum space	140 mm 80 mm 25 mm
	between numbers:	10 mm
The sizes for all the side numbers are:	Minimum height: Minimum width: Minimum stroke: Minimum space between numbers:	120 mm 70 mm 20 mm 10 mm

The background colors and figures (numbers) for Superbike are white background with black numbers.

The allocated number (& plate) for the rider must be affixed on the motorcycle as follows:

- a. Once on the front, either in the centre of the fairing or slightly off to one side; the number must be centred on the white background with no advertising within 25mm in all directions.
- b. Once on both sides of the lower rear portion of the lower fairing. The number must be centred on the white background. Any change to this position must be pre-approved a minimum of 2 weeks before the first race by the MotoAmerica Technical Director.
- c. The numbers must use the fonts as detailed after Art2. Any numbers not using these fonts must have the design of the numbers and the layout pre-approved by the MotoAmerica Technical Director a minimum of 2 weeks before the first race. All digits must be of standard form.
- d. Any outlines must be of a contrasting color and the maximum width of the outline is 3mm. The background color must be clearly visible around all edges of the number (including outline). Reflective or mirror type numbers are not permitted.
- e. Numbers cannot overlap.
- f. In case of a dispute concerning the legibility of numbers, the decision of the MotoAmerica Technical Director will be final.

#### 2.4.6 Fuel

#### **Refer to Article: 2.9**

#### 2.4.7 Tires

- a. The maximum number of tires, of any type, available to each rider during the event will be **specified in Article: 2.3.7**
- b. A maximum of 11 tires per rider can be mounted at any time.
- c. Every tire used during the event must be marked with an adhesive sticker with a number allocated by the MotoAmerica Technical Director. The sticker will be a different color front and rear.
- d. For both Superbike races only, wet and intermediate tires will not need to be marked with a tire sticker. They will not be considered in the total number of tires available for use; however normal allocation limits still apply.
- e. The tire stickers will be delivered to the teams in a sealed envelope, on the day before the first practice after which the teams will be responsible for their use.
- f. The use of motorcycles without the official stickers will be immediately reported to the Race Direction whom will take appropriate action.

- g. Any modification or treatment (cutting, grooving) is forbidden.
- h. At the beginning of the event, the Official Supplier may be requested by the MotoAmerica Technical Director to deliver to him four (4) samples of each type of tire to be used at the event.
- i. The allocation of individual tires will be made on a random basis, with no involvement of any representative from the tire supplier, teams or riders. Those tires will be individually identified and may not be exchanged between riders, including between team mates, and may not be exchanged by the tire supplier after the allocation, except with the permission of the Race Direction.
- j. In exceptional cases, should the sticker be damaged or applied in the wrong way, up to 2 extra stickers may be provided at the sole discretion of the MotoAmerica Technical Director. However, the damaged sticker must be returned to the MotoAmerica Technical Director and/or the tire it was applied to, must be absolutely intact.

## 2.4.8 Engine

The following engine specifications and components may not be altered from the homologated motorcycle except as noted:

- a. The homologated engine design model cannot be changed.
- b. Homologated materials and castings for the crankcase, cylinder, cylinder head and gear-box housing must be used.
- c. The method of cam drive must remain as homologated.
- d. The method of valve retention must remain as the homologated model. No pneumatic valve retention devices are allowed unless fitted to the homologated model.
- e. The sequence in which the cylinders are ignited (i.e. 1-2-4-3), must remain as originally designed on the homologated model. Simultaneous (\*) firing of 2 cylinders is also forbidden if not adopted on the homologated motorcycle.(up to 5 degrees firing difference in 2 cylinders is regarded as 'simultaneous' firing)

## 2.4.8.1 Fuel injection system \*\**until 2016 inclusive*

'Fuel injection system' refers to throttle bodies, fuel injectors, fuel pump and fuel pressure regulator and variable length intake tract devices.

- a. The original homologated throttle body must be used.
- b. Electronically controlled throttle valves, known as 'ride-by-wire', may be added or changed.
- c. Modifications are allowed to the throttle body exterior to add or change the "ride-by-wire". Sensors, bell cranks, pulleys, shaft mounts or clamps may be added changed or removed. However the safety

systems and procedures must always be present and fully functional and must include spring closing and/or ignition cut.

- d. The ride-by-wire kit (to modify the standard throttle bodies) must be approved and at least 50 units must be available (if ordered). Only the machine manufacturer or one approved partner can submit a system for approval. The throttle grip position sensor must be included in this kit. The maximum price for the kit is €2500 (excluding taxes). The maximum lead time is 8 weeks. The approved supplier may optionally charge up to €500 to fit the system to the throttle bodies.
- e. Fuel Injectors must be stock, in the homologated position and unaltered from the original specification and manufacture.
- f. If the homologated air box is used to mount top type fuel injectors then the air box and the attached systems must remain as homologated.
- g. Variable intake tract devices cannot be added if they are not present on the homologated motorcycle.
- h. If the homologated air box is used to mount variable intake tract devices, then the air box and the attached systems must remain as homologated.
- i. Variable intake tract devices must function with the same mechanical system as the homologated system.
- j. The throttle body intake insulators may be modified.
- k. Air funnels (including their fixing points) may be altered or replaced.
- I. Vacuum slides may be fixed in the open position.
- m. Secondary throttle valves and shafts may be removed or fixed in the open position and the electronics may be disconnected or removed.
- n. Air and air/fuel mixture can go to the combustion chamber exclusively through the throttle body butterflies.

#### 2.4.8.1.1 Fuel injection systems \*\* from 2017 inclusive

'Fuel injection systems' refers to throttle bodies, fuel injectors, variable length intake tract devices, fuel-pump, and fuel pressure regulator.

- a. The original homologated fuel injection system must be used without any modification.
- b. The fuel injectors must be stock and unaltered from the original specification and manufacture.
- c. Air funnels may be altered or replaced.
- d. Primary throttle valves cannot be changed or modified.

- e. Secondary throttle valves and shafts may be removed or fixed in the open position and the electronics may be disconnected or removed.
- f. Variable intake tract devices cannot be added if they are not present on the homologated motorcycle and they must remain identical and operate in the same way as the homologated system. All the parts of the variable intake tract device must remain exactly as homologated (excepting the **air funnels**).
- g. Air and air/fuel mixture must go to the combustion chamber exclusively through the throttle body valves.
- h. Electronically controlled throttle valves, known as 'ride-by-wire', may be only used if the homologated model is equipped with the same system.

## 2.4.8.2 Cylinder Head

The homologated cylinder head may be modified as follows:

- a. The cylinder head must begin as a finished production part using homologated materials and castings. Material may only be added by epoxy or removed by machining. No machining or modification is allowed in the cam box / valve mechanism area.
- b. The induction and exhaust system including the number of valves and or ports (intake and exhaust) must be as homologated.
- c. Porting and polishing of the cylinder head normally associated with individual tuning such as gas flowing of the cylinder head, including the combustion chamber is allowed. Epoxy may be used to shape the ports.
- d. The compression ratio is free.
- e. The combustion chamber may be modified.
- f. Valves must remain as homologated.
- g. Valve seats can be modified or replaced for repair. The material must remain as homologated.
- h. Valve guides must remain as homologated. Modifications in the port area are allowed by machining.
- i. Valve springs may be altered or replaced, their material must remain as homologated. An additional spring may be added or the spring may be removed.
- j. Valve spring retainers, collets, spring seats may be altered or replaced.
- k. Valves must remain in the homologated location and at the same angle as the homologated valves.
- I. Rocker arms (if any) must remain as homologated.

- m. The exhaust air bleed system must be blocked and the external fittings on the cam cover(s) may be replaced by plates.
- n. The shim buckets / tappets may be replaced but must be the same height, diameter, material type, surface finish and shim to top surface dimension as the homologated part. The weight must be equal to or greater than the homologated part.
- o. The homologated cylinder head / cam cover may be replaced by a cosmetic replica of higher specific weight material (i.e. replace magnesium part with aluminum)

## 2.4.8.3 Camshaft

- a. Camshafts may be altered or replaced from those fitted to the homologated motorcycle (see also Art. 2.4.8).
- b. Offsetting the camshaft is not allowed. The camshaft must remain in the homologated location.

## 2.4.8.4 Cam sprockets or cam gears

- a. Camshaft sprockets, pulleys or gears may be altered or replaced to allow degreeing of the camshafts (see also Art. 2.4.8).
- b. The cam chain or cam belt tensioning device(s) can be modified or changed.
- c. The cam chain may be altered or replaced but must remain the same type.

## 2.4.8.5 Cylinders

No modifications are allowed. The cylinder base gasket(s) may be changed.

#### 2.4.8.6 Pistons

Must remain as homologated (no polishing, lightening or extra coatings).

#### 2.4.8.7 Piston rings

Must remain as homologated.

## 2.4.8.8 Piston pins and clips

Must remain as homologated.

#### 2.4.8.9 Connecting rods

- a. Connecting rod may be altered or replaced from those fitted to the homologated motorcycle. The weight must be the same or greater than the original homologated part.
- b. The material must be the same type as the homologated item. (i.e. steel, titanium, alloy) or steel.

- c. If the original connecting rod is fitted with a little end insert then the replacement connecting rods may also have an insert of the same material as fitted in the original homologated connecting rod.
- d. The center to center (little end to big end) length of the rod must be the same as the original homologated item.
- e. Connecting rod bolts are free.

## 2.4.8.10 Crankshaft

Only the following modifications are allowed to the homologated crankshaft:

- a. Bearing surfaces may be polished or a surface treatment may be applied.
- b. Balancing is allowed but only by the same method as the homologated crankshaft. For example heavy metal, i.e.: Mallory metal inserts, are not permitted unless they are originally specified in the homologated crankshaft.
- c. Balancing is allowed, the addition or reduction in weight of the crankshaft in order to reach a racing balance can be no higher than 5% of the homologated weight without the tolerance as shown on the homologation drawing of the crankshaft.
- d. The balancing must be performed by the original method i.e. drilling or machining and in the same position (i.e. edge of flywheels).
- e. Polishing of the crankshaft is not allowed.
- f. Balance shaft may be altered, removed or modified.

## 2.4.8.11 Crankcase / Gearbox housing

- a. Crankcases must remain as homologated. If the crankcases have an integral cylinder then the top face of the cylinder may be ground to adjust deck height. Oil Spray nozzles may be modified. No other modifications are allowed (including painting, polishing and lightening).
- b. It is not allowed to add a pump used to create a vacuum in the crankcase. If a vacuum pump is installed on the homologated motorcycle then it may be used only as homologated.
- c. Oil-pan (sump) may be altered or replaced and oil pick up may be altered or replaced.
- d. One thread may be altered for direct oil pressure/temperature sensor fitting in the crankcases or engine covers.

#### 2.4.8.11.1 Lateral covers and protection

a. Lateral (side) covers may be altered, modified or replaced (excluding pump covers). If altered or modified, the cover must have at least the same resistance to impact as the original one. If

replaced, the cover must be made in material of same or higher specific weight and the total weight of the cover must not be less than the original one.

- b. Titanium bolts may be used to fasten lateral covers.
- c. All lateral covers/engine cases containing oil and which could be in contact with the ground during a crash, must be either replaced by a 'heavier' engine cover or protected by a second cover made from metal such as aluminum alloy, stainless steel, steel or titanium, or an approved cover.
- d. Any secondary covers must cover a minimum of 1/3 of the original cover. It must have no sharp edges to damage the track surface. These covers must be fixed properly and securely with a minimum of three (3) case cover screws that also mount the original covers/engine cases to the crankcases.
- e. Plates or crash bars from aluminum or steel also are permitted in addition to these covers. All of these devices must be designed to be resistant against sudden shocks, abrasions and crash damage.
- f. FIM approved covers will be permitted without regard of the material or dimensions.
- g. These covers must be fixed properly and securely with case cover screws that also mount the original covers/engine cases to the crankcases.
- h. Oil containing engine covers cannot be secured with aluminum bolts.
- i. The MotoAmerica Technical Director has the right to refuse any cover not satisfying this safety purpose.

## 2.4.8.12 Transmission / Gearbox

- a. Stock transmission shafts and gear set only. Shimming is allowed
- b. Undercutting and surface treatments are permitted.
- c. OEM Shift drum detent stars may be modified or replaced
- d. No other modifications are allowed
- e. Countershaft sprocket, rear wheel sprocket, chain pitch and size can be changed. Chain master links must be rivet type.
- f. Final drive system, if not by chain, may be modified to chain type using kits specified on the eligible equipment list

(The following is under consideration for 2017)

Note: there will be no homologated price limited WSBK gearbox available.

- a. Only one (1) set of gearbox ratios will be allowed for the whole season. The ratios can be freely chosen.
- b. The chosen ratios must be declared before the start of the first event.
- c. External Quick-Shift systems are permitted (including wire and potentiometer).
- d. Only the homologated primary gear ratio may be used (see art. 2.4.8.13)
- e. The layout of the transmission shafts must be the same as on the homologated motorcycle.
- f. The gear design and material is free.
- g. The selector drum and gear index mechanism may be modified and/or surface treated (but not replaced). Any springs may be replaced.
- h. The selector forks may be changed. However the forks must engage with the same gears and function in the same way as on the homologated motorcycle.
- *i.* Countershaft sprocket, rear wheel sprocket, chain pitch and size may be changed.
- *j.* The sprocket cover may be modified or eliminated.
- k. It will not be allowed to change the gearboxes at the track a broken Gearbox will equal a broken engine.

## 2.4.8.13 Clutch

- a. Aftermarket or modified clutches are permitted.
- b. Back torque limiter is permitted.
- c. Any power source (i.e. hydraulic or electric) cannot be used for clutch operation, if not installed in the homologated model for road use. Human power is excluded from the ban.
- d. Clutch system (wet or dry), type (multi-plate) and method of operation (cable/hydraulic) must remain as homologated.
- e. Clutch basket and primary gear must remain as homologated.

## 2.4.8.14 Oil pumps and oil lines

- a. Homologated oil pumps may be modified, only the original pump parts may be modified, and or shims/spacers added. Modifications include:
  - 1. Blueprinting
  - 2. Changing the oil pressure relief spring.

- 3. Reducing gear and/or housing thickness.
- b. The external appearance must remain as homologated.
- c. Oil lines may be modified or replaced. Oil lines containing positive pressure, if replaced, must be of metal reinforced construction with swaged or treaded connectors.

#### 2.4.8.15 Radiator / Oil cooler

- a. The only liquid engine coolants permitted will be water or water mixed with ethyl alcohol.
- b. The original radiator or oil cooler may be altered or replaced from those fitted to the homologated motorcycle.
- c. Additional radiators or oil coolers may be added.
- d. The original oil/water heat exchanger may be modified, replaced or removed.
- e. The cooling system hoses and catch tanks may be changed.
- f. Radiator fan and wiring may be changed, modified or removed.
- g. The oil cooler must not be mounted on or above the rear mudguard.
- h. The appearance from the front, rear and profile of the motorcycle must in principle conform to the homologated shape after the addition of additional radiators or oil coolers.

#### 2.4.8.16 Air box

- a. The air box must remain as originally produced by the manufacturer on the homologated motorcycle.
- b. If the homologated air box is used to mount top type fuel injectors, then the air box and the attached systems must remain as homologated.
- c. If the homologated air box is used to mount variable intake tract devices, then the air box and the attached systems must remain as homologated and function in the same way.
- d. Variable intake tract devices must function in the same way as on the homologated system.
- e. Air filters, internal flap type valve, sensors and vacuum fittings may be removed, modified or replaced with aftermarket parts.
- f. Any holes in the air box to the outside atmosphere resulting from the removal of components must be completely sealed from incoming air.
- g. The air box drains must be sealed.

- h. External airbox body features may be modified for clearance and to mount other parts if it results in no changes to the internal structure of the airbox. Permission must be given by the MotoAmerica Technical Director in each case.
- i. Ram air tubes or ducts running from the fairing to the air box may be modified, replaced or removed. If tubes/ducts are utilized, they must be attached to the original, unmodified air box inlets.
- j. All motorcycles must have a closed breather system. All oil breather lines must be connected and discharge in the air box.
- k. If the top of the airbox is formed by the bottom of the tank then that part of the tank will be considered as the airbox and must conform to its homologated shape excepting 2mm variance in corner radii and must be the same volume. A dry break / quick release connector may be fitted. See art 2.4.8.17
- I. Additional heat shielding is allowed (i.e. gold or silver heat tape).

## 2.4.8.17 Fuel supply

- a. Fuel pump and fuel pressure regulator must remain as homologated.
- b. The fuel pressure must be as homologated.
- c. Fuel lines from the fuel tank up to the injectors (fuel hoses, delivery pipe assembly, joints, clamps, fuel canister) may be replaced and must be located in such a way that they are protected from crash damage.
- d. The pressure tolerance at the technical control is +0.5 bar in respect to the maximum pressure of the homologated motorcycle.
- e. All motorcycles must have a special device on the fuel line in accordance with FIM specifications for fuel pressure checks, or teams must provide a temporary adaptor to allow checks.
- f. Fuel petcock may be altered, replaced or removed from those fitted to the homologated motorcycle.
- g. Quick connectors or dry break connectors may be used.
- h. Fuel vent lines may be replaced.
- i. Fuel filters may be added.

#### 2.4.8.18 Exhaust system

- a. Exhaust pipes, catalytic converters and silencers may be altered or replaced from those fitted to the homologated motorcycle. Catalytic converters may be removed.
- b. The number of the final exhaust silencer(s) must remain as homologated. The silencer(s) must be on the same side(s) as on the homologated model.

- c. For safety reasons, the exposed edge(s) of the exhaust pipe(s) outlet(s) must be rounded to avoid any sharp edges.
- d. Wrapping of exhaust systems is not allowed except in the area of the rider's foot or an area in contact with the fairing for protection from heat.
- e. The noise limit for Superbikes will be **115 dB/A** (with a 3 dB/A tolerance after the race only) except for where local rules prevail.

## 2.4.9 Ignition and Electronic Control System

- a. The engine control system (including ECU) must be either:
  - 1. A DWO/FIM approved 'Superbike Kit System' See art 2.4.9.1
  - 2. A DWO/FIM approved 'Superstock 1000' kit model plus DWO/FIM approved data logger. See art 2.4.9.2
  - 3. A 2014 "American Superbike Kit". See art 2.4.9.3
- b. No other external ignition/injection controllers, traction control modules or other active expansion modules or calculation units may be fitted.
- c. Central unit (ECU) may be relocated.
- d. Telemetry (remote signals to or from the bike) is not allowed.
- e. No remote or wireless connection to the bike for any data exchange or setting is allowed whilst the engine is running or the bike is moving.
- f. Spark plugs, spark plug caps and HT leads (if applicable) are free.
- g. Battery is free.

# 2.4.9.1 The DWO/FIM approved 'Superbike Kit System' must meet the following:

- a. The system must be a complete package including all electrical / electronic parts not supplied on the homologated motorcycle required for full operation of all strategies excepting the wiring harness.
- b. Only the machine manufacturer or one approved partner can submit a single system for approval.
- c. The of the complete system including ECU. total price dashboard/display, all additional sensors essential for full operation of all strategies, IMU, software, enable codes, datalogging, analysis 'settina' software. ECU 'tunina' or software. datalogger, download/connection cable, example harness design, manual for use, (not a complete list), is €8000 Euro (excluding taxes). Data Logging only sensors are excluded from the price cap.
- d. There must be at least 50 Superbike Kit Systems (currently approved system) available worldwide per season, if ordered, through authorized distributors or dealers. The Superbike Kit System must be marked and considered as for race use only.

- e. Lead time less than 8 weeks.
- f. The ECU must be from the FIM/DWO Approved Superbike ECU List.
- g. The following sensors may be used:
  - 1. Throttle position (multiple)
  - 2. Map sensor, Map Sync (pressure sensor on the intake port used to synchronize the engine during the start)
  - 3. Airbox Pressure
  - 4. Engine pick-ups (Cam, crank) (Crank trigger may be replaced)
  - 5. Lambda
  - 6. Twist grip position
  - 7. Front speed
  - 8. Rear Speed
  - 9. Gearbox output shaft speed
  - 10. Gear position
  - 11. Gear shift load cell
  - 12. Front brake pressure
  - 13. Rear brake pressure
  - 14. Oil pressure
  - 15. Air pressure
  - 16. Water temperature
  - 17. Air temperature
  - 18. IMU (various signals)
  - 19. Transponder / Lap time signal
  - 20. Knock Sensor
  - 21. Fuel pressure
  - 22. Oil temperature
  - 23. Fork position
  - 24. Shock position
  - 25. Tilt / Tip-Over Switch
  - 26. GPS Unit
  - 27. Rear tire temperature (External) (Multiple)
  - 28. Rear TPMS Monitor (Temperature and Pressure)
- h. **2** further additional sensor channels (that are not included in the above list) may be added to the machine.
- i. Redundant/doubled sensors are allowed but must be included in the Superbike Kit System if they are required for safe operation.
- j. Analogue/Logic to CAN sensors are allowed.
- k. The sensors originally fitted to the homologated machine and used as homologated, will not be included in the price limit.
- I. When the following sensors are damaged through crashes they may be replaced by parts of the same function but do not have to be the same specific part from the Superbike Kit System:
  - 1. Fork and Shock Potentiometers
  - 2. Brake pressure sensors

- 3. Gear shift sensor (but must remain the same type included with the kit i.e. Load cell, switch etc.)
- m. Before the final pre-season test, before the mid-season test(s) or at the season midpoint and within three hours of the last race of the season any firmware / software updates being used by the factory teams must be made available to all same manufacturer customer SBK teams (more frequent updates are allowed).
- n. The manufacturer must provide current strategies but may remove the ability to change or see these settings, base mapping must be provided.
- o. Only firmware and software from the FIM/DWO approved software and firmware list may be used.
- p. Factory Teams may use any development firmware and software which will be made available to teams according to the update schedule.
- q. Transponder is NOT included in the "Superbike Kit System"
- r. The selection of logged channels is free.
- s. Coils and coil drivers are free and must be included in the Superbike Kit System if altered.
- t. No other external ignition/injection controllers, traction control modules or other active expansion modules or calculation units may be fitted unless included in the Superbike System.
- u. The factory team must use the current seasons 'Superbike Kit System'. No backdated parts may be used.
- v. Superbike kit systems remain approved for 3 seasons (first season inclusive).

Manufacturer nominated Superbike Kit System suppliers please also see "Superbike Kit System Approval Requirements" documentation.

#### 2.4.9.2 DWO/FIM approved 'Superstock 1000' kit model.

- a. The ECU must be from the approved Superstock Kit.
- b. The Kit includes all parts necessary to operate including ECU activations.
- c. The ECU software may be changed.
- d. Sensors and coils must remain as homologated, only wheel speed sensors may be added for strategy functions.
- e. No inertial platforms are allowed if an inertial platform is not installed on the original homologated motorcycle. If an inertial platform is fitted to the homologated motorcycle then the original sensor must be used. If the approved data logger is fitted with internal inertial sensors the inertial data cannot be logged or transmitted.

- f. The characteristics of approved data logging units must be the following:
  - 1. Maximum retail price of the unit (hardware + software, excluding sensors and wiring harness) cannot exceed €3000 (VAT excluded).
  - 2. Maximum retail price of the complete system, including logger, sensors and harness, is €5000.
  - 3. The unit must be available for sale to the public and listed in the FIM/DWO list of approved data loggers.
  - 4. A maximum of 8 simultaneous working sensors (connected to the additional data logger) may be added to the original sensors on the motorcycle.
  - 5. The sensors must be simple-function. The type of sensor is free.
  - 6. Data Logging wiring harness design is free.
  - 7. CAN communication between the ECU and approved data logger is allowed without any limitation in CAN channel logger number.
  - 8. Sensors changed but of the same function i.e. Lambda will be considered in the 8 sensors.
  - 9. The addition of a IR receiver and/or GPS unit and/or transponder lap timing signal for lap timing/scoring/logging purposes is allowed and will be considered one of the 8 sensors.

#### 2.4.9.3 American Superbike Kit System

- a. Systems will only be accepted if used by teams who participated in the 2015 MotoAmerica superbike class and are using the same homologation year motorcycle. Teams may apply to extend the use of the 2015 American Superbike Kit for up to one season. *Teams must contact <u>technicaldirector@motoamerica.com</u> to obtain the exemption.*
- b. Engine control system may be modified or replaced with aftermarket products that appear on the 2014 Eligible Equipment List.
- c. Complete specification follows 2014 documentation.
- d. A copy of the 2014 American Superbike Electronic Component Declaration / Cost Document must be submitted to the MotoAmerica Technical Director at least one month prior to on track activity at the first round of the season for approval.
- e. Data systems must be approved and appear on the Eligible Equipment list if separate from ECU/ dash.

#### 2.4.9.4 Generator, alternator, electric starter

- a. The stator/coils must remain as homologated.
- b. The flywheel may be modified or replaced.

- c. The electric starter must operate normally and always attempt to start the engine during the event. The starter must crank the engine at a suitable speed for starting for a minimum of 2 seconds.
- d. The starter motor gear system must remain as homologated.
- e. Motorcycles should self-start on the starting grid in neutral. Pushstarting on the starting grid is not allowed, however start line Officials may push start the motorcycle if necessary (in gear).
- f. The use of a 'booster' battery is permitted.

## 2.4.9.5 Wiring harness

- a. The Wiring Harness is free.
- b. Each team must provide a download connection lead to the MotoAmerica Technical Director.

## 2.4.10 Main frame

- a. In MotoAmerica Superbike, riders may practice on two (2) motorcycles providing that all such motorcycles have been approved by Tech Inspection in the rider's name.
- b. One (1) Spare complete motorcycle is allowed per rider.

*Under consideration for 2017:* 

- a. During the entire duration of the event, each rider may only use one (1) complete motorcycle, as presented for Technical Control, with the frame clearly identified with a seal. In case the frame needs to be replaced, the rider or the team must request the use of a spare frame to the MotoAmerica Technical Director.
- b. One (1) Spare complete motorcycle is allowed per rider.
- c. A team may opt to have one (1) spare machine shared by two or more riders.

## Explanation of Procedures:

- Only one (1) complete motorcycle may be presented for the preliminary technical checks and it will be the only motorcycle allowed on the track and in the front of pit box during the practices, qualifying, Superpole and races.
- The frame of this motorcycle will be officially sealed by the MotoAmerica Technical Director or by his appointed staff. The seal will bear a serial number, which will be recorded. Any attempt made to remove the seal will damage it irreparably.
- At any time during the event the technical stewards, under the direction of the MotoAmerica Technical Director, may check the seal and verify that it conforms to the motorcycle and rider it was

assigned to. For cross reference, every frame must have a unique number (VIN) punched on it, on the steering-head.

- If the motorcycle is damaged in a crash or in any other incident and is declared unrepairable (safely and in the available time) by the MotoAmerica Technical Director or his appointed staff then the seal on the damaged motorcycle will be destroyed by the technical staff and the chassis of this motorcycle must not be used for the remainder of the event. The new serial number will be recorded by the MotoAmerica Technical Director. The spare machine may then be presented for scrutineering before the next session.
- The replacement motorcycle may be used on the track only after the end of the practice and qualifying sessions or race in which the damage occurred. The damaged motorcycle must be removed from the front of the pit box as soon as possible and put in storage at the back of the pit box out of view of pit lane.
- Once a rider exits the pit lane for any session including the race the spare machine can no longer be used.
- Any actions contrary to these procedures will result in a penalty as described in the Technical Regulations.
- The damaged frame may be impounded by the MotoAmerica Technical Director for later examination.

## 2.4.10.1 Frame body and sub-frames

- a. The main frame must remain as originally produced by the manufacturer for use on the homologated machine.
- b. The main frame may only be altered by the addition of gussets or tubes. No gussets or tubes may be removed.
- c. Holes may be drilled on the frame only to fix approved components (i.e. fairing brackets, steering damper mount).
- d. The homologated dimensions and position of bearing seats in the steering head column, and the engine, swing arm, rear shock, and suspension linkage mounting points must remain as original.
- e. Steering angle changes are permitted by fitting offsetting inserts onto the bearing seats of the original steering head, but no part of the insert must protrude axially more than 3 mm from the original steering head.
- f. If the homologated machine has exchangeable bearing inserts/bushes: The bushings/inserts are free to make a +/- 6mm adjustment fore and aft in the plane of the original bearing seat. The homologated position is considered as the position in which the production motorcycle is supplied.
- g. The swing arm pivot axis may be moved a maximum of 5 mm radially (excluding tolerances) measured from the homologated

axis. If the homologated machine does not allow pivot adjustment then the swingarm pivot position may be adjusted by the use of offset inserts, the frame cannot be modified to accommodate the inserts.

- h. All motorcycles must display a unique vehicle identification number on the main frame body (chassis number).
- i. No polishing or surface refinishing is allowed but the paint scheme is not restricted.
- j. Front and rear sub frame may be changed altered or removed.

## 2.4.10.2 Suspension - General

- a. Participants in the Superbike class must only use parts appearing in the MotoAmerica eligible equipment list.
- b. No aftermarket or prototype electronically-controlled suspensions maybe used. Electronically-controlled suspension may only be used if already present on the production model of the homologated motorcycle.
- c. The electronically-controlled valves must remain as homologated. The shims, spacers and fork/shock springs not connected with these valves can be changed.
- d. The ECU for the electronic suspension must remain as homologated and cannot receive any motorcycle track position or sector information; the suspension cannot be adjusted relative to track position.
- e. The electronic interface between the rider and the suspension must remain as on the homologated motorcycle. It is allowed to remove or disable this rider interface.
- f. The original suspension system must work safely in the event of an electronic failure.
- g. Electro-magnetic fluid systems which change the viscosity of the suspension fluid(s) during operation are not permitted.
- Electronic controlled steering damper cannot be used if not installed in the homologated model for road use. However, it must be completely standard (any mechanical or electronic part must remain as homologated).

## 2.4.10.3 Front Suspension

- a. Forks must remain as originally produced by the manufacturer for the homologated motorcycle.
- b. Original internal parts of the homologated forks may be modified or changed. After market damper kits or valves may be installed.
- c. The original surface finish of the fork tubes (stanchions, fork pipes) may be changed. Additional surface treatments are allowed.

- d. Fork caps and external damping adjusters may be modified or replaced.
- e. The upper and lower fork clamps (triple clamp, fork bridges, and stem) may be modified or replaced.
- f. A fork brace may be installed. Fork bottoms may be modified for speed and suspension sensors. Axle hole may not be increased in bore but may have a sleeve for captive axle's nut.
- g. Fender brackets may be modified to maintain stock tire to fender clearance when using race tires or to provide clearance for caliper mounting brackets
- h. A steering damper may be added or replaced with an 'after-market' damper.
- i. The steering damper cannot act as a steering lock limiting device.
- **2.4.10.3** Front Suspension (Under consideration for 2017) using WSBK price capped components
  - a. The front fork in whole or part may be changed but must be the same type homologated (leading link, telescopic, etc.).
  - b. The upper and lower fork clamps (triple clamp, fork bridges) and stem may be changed or modified.
  - c. A steering damper may be added or replaced with an 'after-market' damper.
  - d. The steering damper cannot act as a steering lock limiting device.

## 2.4.10.4 Rear fork (Swing-arm)

- a. Swingarm must remain as originally produced by the manufacturer for the homologated motorcycle with the following changes:
- b. Rear wheel stand mounts may be added to the swingarm by welding or by bolts. Brackets must have rounded edges (with a large radius). Mounting bolts must be recessed.
- c. Gussets and bracing may be added. A provision for shock absorber and spring clearances is allowed.
- d. Link and link arm pick up points must remain as homologated.
- e. Axle components associated with locating the rear axle position (not permanently attached to the swingarm) may be modified or replaced.
- f. The range of axle adjustment may be modified by machining existing components or replacing only the area the axle assemblies' travel. i.e. welding in billet blocks to provide optional wheelbase range. Any modifications to the swing arm assembly must be pre-approved by MotoAmerica.
- g. A chain guard must be fitted in such a way as to reduce the possibility that any part of the riders' body must become trapped between the lower chain run and the rear wheel sprocket.

- **2.4.10.4** Rear fork (Swing-arm) (Under consideration for 2017) using WSBK price capped components
  - a. The rear fork may be altered or replaced from those fitted to the homologated motorcycle.
  - b. However the type single or double sided must remain as homologated.
  - c. The use of carbon fiber or Kevlar® materials is not allowed if not homologated on the original motorcycle.
  - d. A chain guard must be fitted in such a way as to reduce the possibility that any part of the riders' body may become trapped between the lower chain run and the rear wheel sprocket.
  - e. Rear wheel stand brackets may be added to the rear fork by welding or by bolts.
  - f. Brackets must have rounded edges (with a large radius). Fastening screws must be recessed.

#### 2.4.10.5 Rear suspension unit

- a. Rear suspension unit may be changed but a similar system must be used (i.e. dual or mono).
- b. The rear suspension linkage may be modified or replaced.
- c. The original fixing points on the frame (if any) must be used to mount the shock absorber, linkage and rod assembly fulcrum (pivot points).
- d. Removable top shock mounts may be replaced. If replaced they must retain their homologated geometry.

#### 2.4.10.6 Wheels

- a. Wheels may be replaced (see Art. 2.3.4) and associated parts may be altered or replaced from those fitted to the homologated motorcycle.
- b. Aftermarket wheels must be made from aluminum (aluminum) alloys.
- c. The use of the following alloy materials for the wheels is not allowed: Beryllium (>=5%), Scandium (>=2%), Lithium (>=1%).
- d. Each specific racing wheel model must be approved and certified according to JASO (Japanese Automotive Standards Organization) T 203-85 where W (maximum design load) of art. 11.1.3 is 195 kg for front wheel and 195 kg for rear wheel, K = 1.5 for front and rear wheels. Static radius of tire: front 0.301 m, rear 0.331 m.
- e. Wheel manufacturers must provide copy of the certificate for their wheel(s) as proof of compliance to the MotoAmerica Technical Director when requested.

- f. From 2016: The homologated road bike wheel and sprocket carrier assembly may be used with no modification, irrespective of material. They must meet article 2.4.10.6.(d)(e). Bearings and spacers may be changed.
- g. On motorcycles equipped with a double sided swing arm (rear fork), the rear sprocket and brake rotor must remain on the rear wheel when the wheel is removed.
- h. Bearings, seals, and axles may be altered or replaced from those fitted to the homologated motorcycle. The use of titanium and light alloys is forbidden for wheel spindles (axles).
- i. Wheel balance weights may be discarded, changed or added to.
- j. Any inflation valves may be used.

Wheel rim diameter size (front and rear) inches	17 inches
Front wheel rim width:	3.50 inches
Rear wheel rim width:	6.00 inches

#### 2.4.10.7 Brakes

- a. Front brake master cylinder may be altered or replaced from those fitted to the homologated motorcycle.
- b. Front brake calipers may be altered or replaced from those fitted to the homologated motorcycle.
- c. Rear brake master cylinder may be altered or replaced from those fitted to the homologated motorcycle.
- d. Rear brake calipers may be altered or replaced from those fitted to the homologated motorcycle.
- e. Brake pads or shoes may be altered or replaced from those fitted to the homologated motorcycle.
- f. Brake hoses and brake couplings may be altered or replaced from those fitted to the homologated motorcycle. The split of the front brake lines for both front brake calipers must be made above the lower fork bridge (lower triple clamp).
- g. Brake discs may be altered or replaced from those fitted to the homologated motorcycle. Only ferrous materials are allowed for brake discs. The use of exotic alloy materials for brake calipers (i.e. aluminum- beryllium, etc.) is not allowed.
- h. The Anti-Lock Brake System (ABS) may be used only if installed in the homologated model for road use. However, it must be completely standard (any mechanical or electronic part must remain as homologated, brake discs and master cylinder levers excluded), and only the software of the ABS may be modified.

- i. The Anti-Lock Brake System (ABS) can be disconnected and its ECU can be dismantled. The ABS rotor wheel can be deleted, modified or replaced.
- j. Motorcycles must be equipped with brake lever protection, intended to protect the handlebar brake lever from being accidentally activated in case of collision with another motorcycle. Composite guards are not permitted. FIM approved guards will be permitted without regard to the material.
- k. The MotoAmerica Technical Director has the right to refuse any guard not satisfying this safety purpose.

# 2.4.10.8 Handlebars and hand controls

- a. Handlebars, hand controls (Subject to Art 2.4.8.1) and cables may be altered or replaced from those fitted to the homologated motorcycle.
- b. Cable operated throttles (grip assembly) must be equipped with both an opening and a closing cable including when actuating a remote ride by wire grip/demand sensor.
- c. Motorcycles must be equipped with a functional ignition kill switch or button mounted on the right hand handlebar (within reach of the hand while on the hand grips) that is capable of stopping a running engine. The button or switch must be red.

# 2.4.10.9 Foot rest and foot controls

- a. Foot rest/foot controls may be relocated, but the original mounting points must be used.
- b. Foot rests may be rigidly mounted or a folding type which must incorporate a device to return them to the normal position.
- c. The end of the foot rest must have at least an 8mm solid spherical radius.
- d. Non folding footrests must have an end (plug) which is permanently fixed, made of aluminum, plastic, Teflon® or equivalent type of material (min. radius of 8mm). The plug surface must be designed to reach the widest possible area of the footrest. The MotoAmerica Technical Director has the right to refuse any plug not satisfying this safety purpose.

# 2.4.10.10 Fuel Tank

a. The fuel tank must maintain the homologated appearance and location; however its actual shape can be slightly changed to suit the rider's preference. The tank may be modified below the upper frame line and under the seat. The material of construction of the fuel tank may be altered from the one of the tank fitted to the homologated motorcycle.

- b. All fuel tanks must be filled with fire retardant material (i.e. fuel tank foam), or be fitted with a fuel cell bladder.
- c. Fuel tanks made of composite materials (carbon fiber, aramid fiber, glass fiber, etc.) must have passed the FIM Standards for fuel tanks or be lined with a fuel cell bladder.
- d. Tanks made of composite material must bear the label certifying conformity with FIM Fuel Tank Test Standards. Fuel tanks without a fuel cell bladder must bear a label certifying conformity with FIM Fuel Tank Test Standards.
- e. Such labels must include the fuel tank manufacturer's name, date of tank manufacture, and name of testing laboratory.
- f. 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 (See 'Fuel Tank Test Standards' below).
- g. Fuel cell bladders must conform to or exceed the specification FIM/FCB- 2005. Full details of this standard are available from the FIM.
- h. The fuel tank must be fixed to the frame from the front and the rear with a crash-proof assembly system. Bayonet style couplings cannot be used, nor may the tank be fixed to any parts of the streamlining (fairing) or any plastic part. The MotoAmerica Technical Director has the right to refuse a motorcycle if he is of the opinion that the fuel tank fixation is not safe.
- i. The original tank may be modified to achieve the maximum capacity of 24 liters, provided the original profile is as homologated.
- j. A cross over line between each side of the tank is allowed (maximum inside diameter 10 mm).
- k. Fuel tanks with tank breather pipes must be fitted with non-return valves which discharge into a catch tank with a minimum volume of 250 cc made of a suitable material.
- I. Fuel tank filler caps may be altered or replaced from those fitted to the homologated motorcycle, and when closed, must be leak proof. Additionally, they must be secured to prevent accidental opening at any time.
- m. The same size fuel tank used in practice must be used during the entire event.

# 2.4.10.10.1 Fuel tank homologation

a. Any fuel tanks, made of non-ferrous materials (with the exception of aluminum) must be tested according to the test procedure prescribed by the FIM.

- b. Each manufacturer is responsible for testing its own fuel tank model(s) and will certify that the fuel tank exceeds the FIM test standard, if it has passed the FIM test procedure for fuel tanks.
- c. Each manufacturer must affix a quality and test label on each fuel tank type that is produced for competition use. This quality and test label will be the recognition of a fuel tank model which has passed the FIM test procedure.
- d. All fuel tanks that are made to the same design, dimensions, number of fiber layers, grade of fiber, percentage of resin, etc., must be identified with the same quality and test label.
- e. The quality and test label will include the following information on each label affixed to each fuel tank: name of the fuel tank manufacturer, date of fabrication, code or part number, name of testing laboratory, fuel capacity.
- f. Each manufacturer is requested to inform the FIM/CCR Secretariat of its fuel tank model(s) which have passed the FIM test procedure, with a copy of the quality and test label, according to point 5.
- g. Only fuel tanks that have passed the FIM test procedure will be accepted.

# 2.4.10.11 Fairing / Bodywork

- a. The fairing, mudguards and body work must conform in principle to the homologated shape as originally produced by the manufacturer.
- b. The fairing has a tolerance of +/-15mm from the original homologated road fairing, respecting the design and features of the homologated fairing, with the exception of the oil containing portion of the lower fairing, seat area and the area supporting the screen. The overall width of the frontal area may be +30mm maximum. The decision of the Technical Director will be final.
- c. The windscreen may be replaced.
- d. The original air ducts running between the fairing to the airbox may be altered or replaced from those fitted to the homologated motorcycle.
- e. 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 (min. 5 liters). The lower edge of openings in the fairing must be positioned at least 50 mm above the bottom of the fairing.
- f. The lower fairing must incorporate one hole of 25 mm in the bottom of the front lower area. This hole must remain closed in dry conditions and must be only opened in wet race conditions, as declared by the Race Director.

- g. Minimal changes are allowed in the fairing to permit the use of an elevator (stand) for wheel changes and to add plastic protective cones to the frame or the engine.
- h. Holes may be drilled or cut in the fairing or bodywork to allow additional increased intake air to the oil cooler. Holes bigger than 10mm must be covered with a particle grill or fine wire mesh. Grill/mesh must be painted to match the surrounding material.
- i. Original openings for cooling in the lateral fairing/bodywork sections may be partially closed only to accommodate sponsors' logos/lettering. Such modification shall be made using wire mesh or perforated plate. The material is free but the distance between all opening centers, circle centers and their diameters must be constant. Holes or perforations must have an open area ratio > 60%.
- j. The front mudguard must conform in principle to the homologated shape originally produced by the manufacturer.
- k. Holes may be drilled in the front mudguard to allow additional cooling. Holes bigger than 10mm must be covered with metal gauze or fine mesh. Mesh must be painted to match the surrounding material.
- I. A rear mudguard may be added or removed.
- m. Material of construction of the front mudguard, rear mudguard and fairing may be altered or replaced from those fitted to the homologated motorcycle.

# 2.4.10.12 Seat

- a. Seat may be altered or replaced from those fitted to the homologated motorcycle.
- b. The top portion of the rear body work around the seat may be modified to a solo seat.
- c. The appearance from front, rear and profile must conform in principle to the homologated shape.
- d. Holes may be drilled in the seat or rear cowl to allow additional cooling. Holes which are bigger than 10mm must be covered with metal gauze or fine mesh. Mesh must be painted to match the surrounding material.
- e. Material of construction of the seat may be altered or replaced from those fitted to the homologated motorcycle.

# 2.4.10.13 Rear Safety Light

All motorcycles must have a functioning red light mounted at the rear of the machine. This light must be switched on any time the motorcycle is on the track or being ridden in the pit lane and the session is declared WET. All lights must comply with the following:

- a. Lighting direction must be parallel to the machine center line (motorcycle running direction), and be clearly visible from the rear at least 15 degrees to both left and right sides of the machine center line.
- b. The rear light must be mounted near the end of the seat/rear bodywork and approximately on the machine center line, in a position approved by the MotoAmerica Technical Director. In case of dispute over the mounting position or visibility, the decision of the MotoAmerica Technical Director will be final.
- c. Power output/luminosity equivalent to approximately: 10 15 (incandescent), 0.6 1.8 W (LED).
- d. The output must be continuous no flashing safety light whilst on track, flashing is allowed in the pit lane when pit limiter is active.
- e. Safety light power supply may be separated from the motorcycle.
- f. The MotoAmerica Technical Director has the right to refuse any light system not satisfying this safety purpose.

# 2.4.11 The following items MAY BE altered or replaced from those fitted to the homologated motorcycle.

- a. Any type of lubrication, brake or suspension fluid may be used.
- b. Gaskets and gasket material.
- c. Bearings (ball, roller, taper, plain, etc.) of any type or brand may be used.
- d. Fasteners (nuts, bolts, screws, etc.), internal engine bolts must remain of standard homologated materials or materials of higher specific weight.
- e. Thread repair may be made using inserts of different material such as helicoils and timeserts.
- f. External surface finishes and decals.

# 2.4.12 The following items MAY BE removed

- a. Instrument and instrument bracket and associated cables.
- b. Tachometer.
- c. Speedometer and associated wheel spacers.
- d. Chain guard.

#### 2.4.13 The Following Items MUST BE Removed

- a. Headlamp, rear lamp and turn signal indicators (when not incorporated in the fairing). Openings must be covered by suitable materials.
- b. Rear-view mirrors.

- c. Horn.
- d. License plate bracket.
- e. Tool box.
- f. Helmet hooks and luggage carrier hooks
- g. Passenger foot rests.
- h. Passenger grab rails.
- i. Safety bars, center and side stand brackets welded to the main frame may be removed.

# 2.4.14 The following items MUST BE altered

- a. Motorcycles must be equipped with a functional ignition kill switch or button mounted on the right hand handlebar (within reach of the hand while on the hand grips) that is capable of stopping a running engine. The button or switch must be red.
- b. Throttle controls must be self-closing when not held by the hand.
- c. All drain plugs must be wired. External oil filter(s) screws and bolts that enter an oil cavity must be safety wired (i.e. on crankcases).
- d. All motorcycles must have a closed breather system. The oil breather line must be connected and discharge in the airbox.
- e. Where breather or overflow pipes are fitted they must discharge via existing outlets. The original closed system must be retained; no direct atmospheric emission is permitted.
- f. Motorcycles must be equipped with a red light on the instrument panel that will illuminate in the event of oil pressure drop.

# 2.5 SUPERSPORT TECHNICAL SPECIFICATIONS

The following rules are intended to give freedom to modify or replace some parts in the interest of safety, research and development and improved competition between various motorcycle concepts.

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

# If a change to a part or system is not specifically allowed in any of the following articles, then it is forbidden.

Supersport motorcycles require an FIM homologation (see Appendix FIM Homologation procedure for Superstock, Supersport and Superbike motorcycles). All motorcycles must comply in every respect with all the requirements for road racing as specified in these Technical Regulations, unless they are already equipped as such on the homologated model.

# For 2016: 2013-2015 Kawasaki ZX-6R (636) is accepted as homologated for 2016 MotoAmerica competition.

Once a motorcycle has obtained the homologation, it may be used for racing in the corresponding class for a maximum period of 8 years, or until such time that the homologated motorcycle is disqualified by new rules or changes in the technical specifications of the Corresponding class.

The appearance from the front, rear and the profile of Supersport motorcycles must (except when otherwise stated) conform in principle to the homologated shape (as originally produced by the manufacturer). The appearance of the exhaust system is excluded from this rule.

# 2.5.1 Motorcycle specifications

All parts and systems not specifically mentioned in the following articles must remain as originally produced by the manufacturer for the homologated motorcycle.

#### 2.5.2 Engine configurations and displacement capacities

The following engine configurations comprise the Supersport class.

Over 400cc up to 600cc	4 stroke	4 cylinders
Over 500cc up to 675cc	4 stroke	3 cylinders
Over 600cc up to 750cc	4 stroke	2 cylinders

The displacement capacity bore and stroke must remain at the homologated size. Modifying the bore and stroke to reach class limits is not allowed. **All machines must be normally aspirated.** 

#### 2.5.3 Balancing various motorcycle concepts

In order to equalize the performance of motorcycles used in the Supersport Championship, A system of performance enhancements or restrictions can be developed. (Such as minimum weight, air restrictor or REV Limit may be applied according to their respective racing performances.) The decision to apply a balancing system to a motorcycle will be taken by the MotoAmerica Permanent Bureau based on decisions made by the Superbike Commission at any time deemed necessary to ensure fair competition.

# 2.5.4 Minimum weight

The minimum weight will be:	600cc	4 cylinders	161kg (354.2lbs)
	675cc	3 cylinders	161kg (354.2lbs)
	750cc	2 cylinders	161kg (354.2lbs)

# For 2016: 2013-2016 Kawasaki ZX-6R (636) minimum weight- 163 kg (358.6 lbs)

At any time during the event, the weight of the whole motorcycle (including the tank and its contents) must not be less than the minimum weight.

There is no tolerance on the minimum weight of the motorcycle.

During the final technical inspection at the end of the race, the selected motorcycles will be weighed in the condition they finished the race, and the established weight limit must be met in this condition. Nothing may be added to the motorcycle. This includes all fluids.

During the practice and qualifying sessions, riders may be asked to submit their motorcycle to a weight control. In all cases the rider must comply with this request.

The use of ballast is allowed to stay over the minimum weight limit and may be required due to the handicap system. The use of ballast and weight handicap must be declared to the MotoAmerica Technical Director at the preliminary checks.

#### 2.5.5 Numbers and number plates

The background colours and figures (numbers) for Supersport are a white background with blue (pantone 298c) numbers:

The sizes for all the front numbers are:	ers are: Minimum height: Minimum width: Minimum stroke: Minimum space	
	between numbers:	10 mm
The sizes for all the side numbers are:	Minimum height: Minimum width: Minimum stroke: Minimum space	120 mm 70 mm 20 mm 10 mm

- **2.5.5.1** The allocated number (& plate) for the rider must be affixed on the motorcycle as follows:
  - a. Once on the front, either in the center of the fairing or slightly off to one side. The number must be centered on the white background with no advertising within 25mm in all directions.
  - b. Once on each side of the lower rear portion of the lower fairing. The number must be centred on the white background. Any change to this position must be pre-approved a minimum of 2 weeks before the first race by the Superbike Technical Director.
  - c. The numbers must use the fonts as detailed after Art. 2. Any numbers not using these fonts must have the design of the numbers and the layout pre-approved by the MotoAmerica Technical Director a minimum of 2 weeks before the first race. All digits must be of standard form.
  - d. Any outlines must be of a contrasting colour and the maximum width of the outline is 3mm. The background colour must be clearly visible around all edges of the number (including outline). Reflective or mirror type numbers are not permitted.
  - e. Numbers cannot overlap.

In case of a dispute concerning the legibility of numbers, the decision of the MotoAmerica Technical Director will be final.

# 2.5.6 Fuel

#### **Refer to Article: 2.9**

#### 2.5.7 Tires

- a. The maximum number of tires, of any type, available to each rider during the event will be **specified in Article: 2.3.7**
- b. A maximum of 10 tires per rider can be mounted at any time.
- c. For both Supersport races only, Wet and Intermediate tires will not need to be marked with a tire sticker. They will not be considered in the total number of tires available for use However normal allocation limits still apply.
- d. Every tire used during the event must be marked with an adhesive sticker with a number allocated by the MotoAmerica Technical Director. The sticker will be a different color front and rear.
- e. The tire stickers will be delivered to the teams in a sealed envelope, on the day before the first practice after which the teams will be responsible for their use.
- f. The stickers must be applied to the left sidewall of the tire. Officials will check that all the motorcycles in the pit lane are fitted with tires carrying the sticker.

- g. The use of motorcycles without the official stickers will be immediately reported to the Race Direction whom will take appropriate action.
- h. Any modification or treatment (cutting, grooving) is forbidden.
- i. At the beginning of the event, the Official Supplier may be requested by the MotoAmerica Technical Director to deliver to him four (4) samples of each type of tire to be used at the event.
- j. The allocation of individual tires will be made on a random basis, with no involvement of any representative from the tire supplier, teams or riders. Those tires will be individually identified and may not be exchanged between riders, including between team mates, and may not be exchanged by the tire supplier after the allocation, except with the permission of the Race Direction.
- k. In exceptional cases, should the sticker be damaged or applied in the wrong way, up to 2 extra stickers may be provided at the sole discretion of the MotoAmerica Technical Director. However, the damaged sticker must be returned to the MotoAmerica Technical Director and/or the tire it was applied to, must be absolutely intact.

# 2.5.8 Engine

The following engine specifications and components may not be altered from the homologated motorcycle except as noted:

- a. The homologated engine design model cannot be changed.
- b. Homologated materials and castings for the crankcase, cylinder, cylinder head and gear-box housing must be used.

# 2.5.8.1 Fuel injection system

Fuel injection systems refer to throttle bodies, fuel injectors, variable length intake tract devices, fuel pump and fuel pressure regulator.

- a. The original homologated fuel injection system must be used without any modification.
- b. The fuel injectors must be stock and unaltered from the original specification and manufacture.
- c. The throttle body intake insulators may be modified.
- d. Air funnels (including their fixing points) may be altered or replaced.
- e. Butterflies cannot be changed or modified.
- f. Variable intake tract devices cannot be added if they are not present on the homologated motorcycle and they must remain identical and operate in the same way as the homologated system. All parts of the variable intake tract device must remain exactly as homologated.

- g. Vacuum slides may be fixed in the open position.
- h. Secondary throttle valves and shafts may be removed or fixed in the open position and the electronics may be disconnected or removed
- i. Air and air/fuel mixture **must** go to the combustion chamber exclusively through the throttle body butterflies.
- j. Electronically controlled throttle valves, known as 'ride-by-wire', may only be used if the homologated model is equipped with the same system. Software may be modified but all the safety systems and procedures designed by the original manufacturer must be maintained.

# 2.5.8.2 Cylinder head

Cylinder head must be as homologated. The following modifications are allowed:

- a. Porting and polishing of the cylinder head normally associated with individual tuning such as gas flowing of the cylinder head, including the combustion chamber is allowed. Welding is not allowed. No machining or modification is allowed in the cam box / valve mechanism area.
- b. Modifications of the inlet and exhaust ports by taking off or adding material (welding is forbidden) epoxy may be used to shape the ports.
- c. Surface grinding of the cylinder head surface on the head gasket side.
- d. Original homologated valves guides may be cut or modified, but only on the intake or exhaust port side.
- e. Polishing of the combustion chamber.
- f. Original valve seats must be used, but modifications are allowed to the shape.
- g. Compression ratio is free, but the combustion chamber may be modified only by taking material off.
- h. It is forbidden to add any material to the cylinder head unless as described above.
- i. Rocker arms (if any) must remain as homologated.
- j. The Valves must remain as homologated.
- k. Valve springs may be changed but the number must remain as homologated.
- I. Valve spring retainers may be replaced or modified, but their weight must be the same as, or higher than, the original ones.
- m. The shim buckets / tappets must remain as homologated.

# 2.5.8.3 Camshaft

- a. The method of drive must remain as homologated.
- b. The duration is free but the maximum lift must remain as homologated.
- c. The cam chain or cam belt tensioning device(s) can be changed or modified.
- d. At the technical checks: for direct cam drive systems, the cam lobe lift is measured; for non-direct cam drive systems (i.e. with rocker arms), the valve lift is measured.

#### 2.5.8.4 Cam sprockets or cam gears

Cam sprockets or cam gears may be modified or replaced to allow the degreeing of camshafts.

#### 2.5.8.5 Cylinders

- a. Cylinders must remain as homologated.
- b. Only the following modifications to the cylinders are allowed. Cylinder head gasket surface may be machined to allow the adjustment of compression ratio or resurfacing to repair a warped cylinder surface deck.
- c. Homologated materials and castings for cylinders must be used. The surface finish of the cylinder bore must remain as homologated.

#### 2.5.8.6 Pistons

- a. Pistons must remain as homologated. No modifications are allowed.
- b. No oversized pistons may be used.
- c. Polishing and lightening is not allowed.

#### 2.5.8.7 Piston rings

- a. Piston rings must remain as homologated. No modifications are allowed.
- b. All piston rings must be fitted.

#### 2.5.8.8 Piston pins and clips

Piston pins and clips must remain as homologated. No modifications are allowed.

#### 2.5.8.9 Connecting rods

- a. Connecting rod **assembly** must remain as homologated. No modifications are allowed.
- b. Polishing and lightening is not allowed.

# 2.5.8.10 Crankshaft

- a. Crankshaft must remain as homologated without any modification.
- b. Polishing and lightening is not allowed.
- c. Modifications of the flywheels are not allowed.

# 2.5.8.11 Crankcase / Gearbox housing

- a. Crankcases must remain as homologated. No modifications are allowed (including painting, polishing and lightening).
- b. It is not allowed to add a pump used to create a vacuum in the crankcase. If a vacuum pump is installed on the homologated motorcycle then it may be used only as homologated.
- c. Other engine cases must be made of the homologated material with exclusion of lateral side covers.

# 2.5.8.11.1 Lateral covers and protection

- a. Lateral (side) covers may be altered, modified or replaced. If altered or modified, the cover must have at least the same resistance to impact as the original one. If replaced, the cover must be made in material of same or higher specific weight and the total weight of the cover must not be less than the original one.
- b. All lateral covers/engine cases containing oil and which could be in contact with the ground during a crash, must be either replaced by a 'heavier' engine cover or protected by a second cover made from metal such as aluminum alloy, stainless steel, steel or titanium, or an approved cover.
- c. Any secondary covers must cover a minimum of 1/3 of the original cover. It must have no sharp edges to damage the track surface. These covers must be fixed properly and securely with a minimum of three (3) case cover screws that also mount the original covers/engine cases to the crankcases.
- d. Plates or crash bars made from aluminum or steel also are permitted in addition to these covers. All of these devices must be designed to be resistant against sudden shocks, abrasions and crash damage.
- e. FIM approved covers will be permitted without regard of the material or dimensions.
- f. These covers must be fixed properly and securely with case cover screws that also mount the original covers/engine cases to the crankcases.
- g. No oil containing engine case may be secured with aluminum bolts.
- h. The Technical Director has the right to refuse any cover not satisfying this safety purpose.

# 2.5.8.12 Transmission / Gearbox

a. Stock transmission shafts and gear set only. Shimming is allowed.

#### b. Undercutting and surface treatments are permitted.

- c. Quick-shift systems are allowed (including wire and potentiometer).
- d. Countershaft sprocket, rear wheel sprocket, chain pitch and size may be changed.
- e. The sprocket cover may be modified or eliminated.
- f. Chain guard as long as it is not incorporated in the rear fender may be removed.

#### 2.5.8.13 Clutch

- a. Clutch system (wet or dry type) and the method of operation (by cable or hydraulic) must remain as homologated.
- b. Friction and drive discs may be changed.
- c. Clutch springs may be changed.
- d. The clutch basket (outer) may be reinforced.
- e. The original clutch assembly may be modified or replaced by an aftermarket clutch, also including back torque limiting capabilities (slipper type).
- f. No power source (i.e. hydraulic or electric) can be used for gear selection, if not installed in the homologated model for road use. Human power is excluded from the ban.

#### 2.5.8.14 Oil pumps, water pumps and oil lines

- a. Modifications are allowed but pump housing, mounting points and oil feed points must remain as original.
- b. Oil lines may be modified or replaced. Oil lines containing positive pressure, if replaced, must be of metal reinforced construction with swaged or treaded connectors.
- c. The water pump must remain as homologated.

#### 2.5.8.15 Radiator / Oil cooler

- a. The only liquid engine coolants permitted will be water or water mixed with ethyl alcohol.
- b. The radiator may be changed with an aftermarket radiator or additional radiator that fits in the standard location and does not require any modifications to the main frame or to the fairings' outer appearance.

- c. Modifications to the homologated oil-cooler are allowed only if they do not require any modifications to the main frame or to the fairings' outer appearance. A heat exchanger (oil/water) may be replaced with an oil- cooler.
- d. The cooling system hoses and catch tanks may be changed.
- e. Radiator fan and wiring may be changed, modified or removed.
- f. Additional oil coolers are not allowed.
- g. The oil cooler must not be mounted on or above the rear mudguard.

#### 2.5.8.16 Air box

- a. The air box must remain as originally produced by the manufacturer on the homologated motorcycle.
- b. The air filter element may be removed or replaced but if fitted must be mounted in the original position.
- c. The air box drains must be sealed.
- d. All motorcycles must have a closed breather system. All oil breather lines must be connected and discharge in the air box only. The lines must discharge above the throttles; they cannot discharge into the inlet tract, or exhaust air inlet system.
- e. Ram air tubes or ducts running from the fairing to the air box may be modified, replaced or removed. If tubes/ducts are utilized, they must be attached to the original, unmodified air box inlets.
- f. Additional heat shielding is not allowed (i.e. gold or silver heat tape).

# 2.5.8.17 Fuel supply

- a. Fuel pump and fuel pressure regulator must remain as homologated.
- b. The fuel pressure must be as homologated.
- c. Fuel lines from the fuel tank to the delivery pipe assembly (excluded) may be replaced.
- d. Quick connectors or dry break connectors may be used.
- e. Fuel vent lines may be replaced.
- f. Fuel filters may be added.

#### 2.5.8.18 Exhaust system

a. Exhaust pipes and silencers may be altered or replaced from those fitted on the homologated motorcycle. Catalytic converters may be removed.

- b. The number of final exhaust silencer(s) must remain as homologated. The silencer(s) must be on the same side(s) as on the homologated model.
- c. For safety reasons, the exposed edge(s) of the exhaust pipe(s) outlet(s) must be rounded to avoid any sharp edges.
- d. Wrapping of exhaust systems is not allowed except in the area of the rider's foot or an area in contact with the fairing for protection from heat.
- e. The noise limit for Supersport will be **107 dB/A** (with a 3 dB/A tolerance after the race only).

# 2.5.9 Electrics and electronics

#### 2.5.9.1 Ignition / Engine Control System (ECU)

- a. The engine control system (ECU) must be an ECU (Kit or OEM) applicable to the specific homologated model. The ECU may have its software changed, but the ECU may not be physically modified.
- b. The system may have FIM/DWO/MotoAmerica approved external ignition and/or injection module/s added.
- c. The total combined retail price (software and tuning tools included) on sale to the general public cannot be higher than €2500 (tax excluded).
- d. Central unit (ECU) may be relocated.
- e. Optional equipment sold by the motorcycle Manufacturer for the homologated model is considered not homologated with the bike and must follow the requirements for approved electronics/data loggers.
- f. During an event the Technical Director has the right to ask a team to substitute their ECU or external module with the sample received from the Manufacturer. The change has to be done before Sunday warm up.
- g. No extra sensors may be added for control strategies except shift rod sensor and wheel speed sensors. Wheel speed sensors must be included in the Kit ECU and Harness package if required.
- h. Other additional electronic hardware equipment not on the original homologated motorcycle cannot be added with the exceptions noted below.
- i. The characteristics of approved data logging systems must be the following:

1. Maximum retail price of the unit (hardware + software, excluding sensors and wiring harness) cannot exceed €3000 Euro (VAT excluded) if it is a standalone unit.

2. The Data Logger unit must be available for sale to the public and on the list of FIM/DWO/MotoAmerica approved data loggers.

3. A maximum of 7 simultaneous working sensors (connected to the additional data logger) may be added to the original sensors on the motorcycle.

4. The sensors must be simple-function. No inertial platforms are allowed (if an inertial platform is not installed originally on the homologated motorcycle).

5. Type of sensor is free.

6. Communication from the ECU to an approved data logger (logger can receive data only, no data transmission is allowed) is allowed without any limitation in CAN channel logger number.

- j. The maximum total price of other active/control/calculation units such as lambda driver modules, quick shifter, analogue to CAN, airbleed control and traction control units is €750. These devices must be approved by FIM/DWO/MotoAmerica.
- k. The addition of a device for infra-red (IR) transmission of a signal between the racing rider and his team, used exclusively for lap timing, is allowed and considered in the 7 sensors.
- I. The addition of a GPS unit for lap timing/scoring purposes is allowed and considered in the 7 sensors.
- m. Telemetry is not allowed.
- n. No remote or wireless connection to the bike for any data exchange or setting is allowed whilst the engine is running or the bike is moving.
- o. Harness:
  - The main wiring harness may be replaced by the kit wire harness as supplied for the Kit ECU model, produced and/or approved by the manufacturer of the motorcycle and by FIM/DWO/MotoAmerica. The Kit wiring harness may incorporate the data logging harness.
  - 2. A kit harness that incorporates the data logging harness may only accommodate 7 additional sensors.
  - 3. A sample of the kit wiring harness may be requested by the FIM/MotoAmerica.
  - 4. The key/ignition lock may be relocated, replaced or removed.
  - 5. Cutting of the original main wiring harness is allowed.
- p. The Data Logger wire harness cannot include any other sensors with the exception of the seven sensors that are allowed. The only function of the approved Data Logger wire harness is to connect the seven sensors to the Data Logger, to transmit the data and supply the power.

- q. For the Superstock Kit to be approved, samples of the ECU kits, kit harnesses and external modules with their tuning tools must be sent by the Manufacturers to the MotoAmerica Technical Director, with technical data and selling price.
- r. For the ignition and or injection module, quick shifter or stand-alone data logger to be approved, samples must be sent by the manufacturer of the device to the MotoAmerica Technical Director with technical data and selling price.
- s. The original speedometer and tachometer may be altered or replaced (see also 2.5.11).
- t. Spark plugs may be replaced.
- u. Battery is free.

#### 2.5.9.2 Generator, alternator, electric starter

- a. No modifications are allowed/
- b. The electric starter must operate normally and always be able to start the engine during the event.

#### 2.5.10 Main frame and pre-assembled spare frame

During the entire duration of the event, each rider can only use one (1) complete motorcycle, as presented for Technical Control, with the frame clearly identified with a seal. In case the frame needs to be replaced, the rider or the team can request the use of a spare frame to the MotoAmerica Technical Director.

The pre-assembled spare frame must be presented to the MotoAmerica Technical Director to receive the permission to rebuild the motorcycle. The pre-assembly of the frame shall be strictly limited to:

- Main frame
- Bearings (steering pipe, swing arm, etc.)
- Swing arm
- Rear suspension linkage and shock absorber
- Upper and lower triple clamps
- Wiring harness

The spare frame will not be allowed in the pit box before the rider or the team has received authorization from the MotoAmerica Technical Director.

The motorcycle, once rebuilt, must be inspected before its use by the technical stewards for safety checks and a new seal will be placed on the motorcycle frame.

#### EXPLANATION OF THE PROCEDURES

Only one (1) complete motorcycle may be presented for the preliminary technical checks and it will be the only motorcycle allowed on the track and in the pit box during the practices, qualifying, warm up and race.

The frame of this motorcycle will be officially sealed by the MotoAmerica Technical Director or by his appointed staff. The seal will bear a serial number, which will be recorded. Any attempt made to remove the seal will damage it irreparably.

At any time during the event the technical stewards, under the direction of the MotoAmerica Technical Director, may check the seal and verify that it conforms to the motorcycle and rider it was assigned to. For cross reference, every frame must have a unique number punched on it, preferably on the steering-head.

If the motorcycle is damaged in a crash or in any other incident, it is allowed to use the pre-assembled spare frame to rebuild the motorcycle.

The spare frame may be pre-assembled with the following items: main frame assembly, swing-arm, rear suspension linkage, shockabsorber, steering head bearings, upper and lower triple clamps and wiring harness.

When a team decides that a crashed or damaged motorcycle requires a change of frame, it must inform the MotoAmerica Technical Director. Only at this point may the pre-assembled spare frame be brought into the pit box.

Parts may be transferred from the damaged motorcycle for the assembly of the replacement motorcycle.

Once the assembly of the replacement motorcycle is completed, it will then undergo technical and safety checks and it will be officially sealed. The seal on the damaged motorcycle will be destroyed by the technical staff and the chassis of this motorcycle must not be used for the remainder of the event. The new serial number will be recorded by the MotoAmerica Technical Director.

The replacement motorcycle may be used on the track only after the end of the practice and qualifying sessions or race in which the damage occurred. The damaged motorcycle must be removed from the pit box as soon as possible and put in storage outside the pit box.

After the pre-assembled spare part frame has been used, should it become necessary to replace the frame again because of a further crash or damage, the assembly work must be done using a bare frame with no components attached. The MotoAmerica Technical Director must inspect the bare frame and give his approval before work can start. Any actions contrary to these procedures will result in a penalty as described in the Sporting Regulations

# 2.5.10.1 Frame body and rear sub-frame

- a. The frame must remain as originally produced by the manufacturer for the homologated motorcycle.
- b. Holes may be drilled on the frame only to fix approved components (i.e. fairing brackets, steering damper mount, sensors).
- c. The sides of the frame-body may be covered by a protective part made of a composite material. These protectors must fit the form of the frame.
- d. Nothing else may be added or removed from the frame body.
- e. All motorcycles must display a vehicle identification number punched on the frame body.
- f. Engine mounting brackets or plates must remain as originally produced by the manufacturer for the homologated motorcycle.
- g. Front sub frame / fairing mount may be changed or altered.
- h. Rear sub frame may be changed or altered, but the type of material must remain as homologated, or of higher specific weight.
- Additional seat brackets may be added, non-stressed protruding brackets may be removed if they do not affect the safety of the construction or assembly. Bolt-on accessories to the rear sub-frame may be removed.
- j. The paint scheme is not restricted but polishing the frame body or sub- frame is not allowed.

# 2.5.10.2 Front Suspension

- a. Forks must remain as originally produced by the manufacturer for the homologated motorcycle.
- b. Original internal parts of the homologated forks may be modified or changed.
- c. No aftermarket or prototype electronically-controlled suspension parts may be used, unless such suspension is already present on the production model of the homologated motorcycle, and it must remain completely standard (all mechanical or electronic parts must remain as homologated). The original suspension system must work safely in the event of an electronic failure.
- d. After market damper kits or valves may be installed.
- e. Fork springs may be modified or replaced.
- f. Fork caps may be modified or replaced to allow external adjustment.
- g. Dust seals may be modified, changed or removed if the fork is totally oil- sealed.

- h. The original surface finish of the fork tubes (stanchions, fork pipes) may be changed. Additional surface treatments are allowed.
- i. The upper and lower fork clamps (triple clamp, fork bridges, and stem) must remain as originally produced by the manufacturer on the homologated motorcycle.
- j. A steering damper may be added or replaced with an aftermarket damper.
- k. The steering damper cannot act as a steering lock limiting device.

# 2.5.10.3 Rear fork (swing arm)

- a. The rear fork must remain as originally produced by the manufacturer for the homologated motorcycle. A chain guard must be fitted in such a way to reduce the possibility that any part of the riders' body may become trapped between the lower chain run and the rear wheel sprocket.
- b. Rear fork pivot bolt must remain as originally produced by the manufacturer for the homologated motorcycle.
- c. Rear axle chain adjuster may be modified or changed.
- d. Rear wheel stand brackets may be added to the rear fork by welding or by bolts. Brackets must have rounded edges (with a large radius). Fastening screws must be recessed. An anchorage system or point(s) to keep the original rear brake caliper in place may be added to the rear swing-arm.

# 2.5.10.4 Rear suspension unit

- a. Rear suspension unit (shock absorber) may be changed or modified. The original attachments of the frame and rear fork must be as homologated.
- b. Rear suspension unit spring(s) may be changed.
- c. No aftermarket or prototype electronically-controlled suspension unit maybe used, unless such suspension is already present on the production model of the homologated motorcycle, and it must remain completely standard (all mechanical or electronic parts must remain as homologated). The original suspension system must work safely in the event of an electronic failure.

# d. Rear suspension linkage must remain as originally produced by the manufacturer for the homologated motorcycle.

# 2.5.10.5 Wheels

- a. Wheels must remain as originally produced by the manufacturer for the homologated motorcycle.
- b. A non-slip coating / treatment may be applied to the bead area of the rim.

- c. If the original design included a cushion drive for the rear wheel, it must remain as originally produced for the homologated motorcycle.
- d. Wheel axles must remain as homologated, wheel spacers may be modified or replaced.
- e. The speedometer drive may be removed and replaced with a spacer.
- f. Wheel balance weights may be discarded, changed or added to.
- g. Any inflation valves may be used.

#### 2.5.10.6 Brakes

- a. Front and rear brake discs may be replaced with aftermarket brake discs that must fit the original caliper and mounting. However, the outside diameter and the ventilation system must remain the same as on the homologated motorcycle. Internally ventilated discs are not allowed if not present on the homologated motorcycle.
- b. The brake disc carriers may be changed, but they must retain the same off set and same type of mounting to the wheels of the homologated motorcycle.
- c. Replacement brake discs must be of ferrous material.
- d. Front and rear brake calipers as well as all the mounting points and mounting hardware (mount, carrier, hanger) must remain as originally produced by the manufacturer for the homologated motorcycle (see Art. 2.5.10.3).
- e. In order to reduce the transfer of heat to the hydraulic fluid it is permitted to add metallic-shims to the calipers, between the pads and the calipers, and/or to replace light alloy pistons with steel pistons made by the same manufacturer of the caliper.
- f. The front brake master cylinder may be replaced.
- g. The rear brake master cylinder must remain as originally produced by the manufacturer for the homologated motorcycle.
- h. Front and rear hydraulic brake lines may be changed. The brake fluid reservoir may be replaced and/or repositioned. Quick connectors may be used. The split of the front brake lines for both front brake calipers must be made above the lower edge of the fork bridge (lower triple clamp).
- i. Front and rear brake pads may be changed. Brake pad locking pins may be modified for quick change type.
- j. Additional air ducts are not allowed.
- k. The Antilock Brake System (ABS) may be used only if installed in the homologated model for road use. However, it must be completely standard (any mechanical or electronic part must remain as

homologated, brake discs and master cylinder levers excluded), and only the software of the ABS may be modified.

- I. The Anti-Lock Brake System (ABS) can be disconnected and its ECU can be dismantled. The ABS rotor wheel can be deleted, modified or replaced.
- m. Motorcycles must be equipped with brake lever protection, intended to protect the handlebar brake lever from being accidentally activated in case of collision with another motorcycle. Composite guards are not permitted. FIM approved guards will be permitted without regard to the material. Only composite guards need to be approved.
- n. The Technical Director has the right to refuse any guard not satisfying this safety purpose.

# 2.5.10.7 Handlebars and hand controls

- a. Handlebars may be replaced
- b. Handlebars and hand controls may be relocated.
- c. Throttle controls must be self-closing when not held by the hand.
- d. Throttle assembly and associated cables may be modified or replaced but the connection to the throttle body and to the throttle controls must remain as on the homologated motorcycle.
- e. Clutch and brake lever may be replaced with an after-market model. An adjuster to the brake lever is allowed.
- f. Switches may be changed but the electric starter switch and engine stop switch must be located on the handlebars.
- g. Motorcycles must be equipped with a functional ignition kill switch or button mounted on the right hand handlebar (within reach of the hand while on the hand grips) that is capable of stopping a running engine. The button or switch must be RED.

# 2.5.10.8 Foot rest and foot controls

- a. Foot rest/foot controls may be relocated but brackets must be mounted to the frame at the original mounting points.
- b. Foot rests may be rigidly mounted or a folding type which must incorporate a device to return them to the normal position.
- c. The end of the foot rest must have at least an 8 mm solid spherical radius.
- d. Non folding footrests must have an end (plug) which is permanently fixed, made of aluminum, plastic, Teflon® or an equivalent type material (minimum radius 8mm). The plug surface must be designed to reach the widest possible area. The MotoAmerica Technical Director has the right to refuse any plug not satisfying this safety purpose.

# 2.5.10.9 Fuel tank

- a. Fuel tank must remain as originally produced by the manufacturer for the homologated motorcycle.
- b. All fuel tanks must be completely filled with fire retardant material (i.e. fuel tank foam).
- c. Fuel tanks with tank breather pipes must be fitted with non-return valves that discharge into a catch tank with a minimum volume of 250 cc made of a suitable material.
- d. Fuel caps may be changed. Fuel caps when closed, must be leak proof. Additionally, they must be securely locked to prevent accidental opening at any time.

# 2.5.10.10 Fairing / Bodywork

- a. Fairing, mudguards and body work must conform in principle to the homologated shape as originally produced by the manufacturer. The use of carbon fiber or Kevlar® materials is not allowed in fairing, fuel tank cover, seat, seat base and associated bodywork construction. Specific reinforcements in Kevlar® or carbon are allowed locally around holes and stressed areas.
- b. Wind screen may be replaced.
- c. Original air ducts running between the fairing to the airbox may be altered or replaced from those fitted to the homologated motorcycle.
- d. 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 (min. 5 liters). The lower edge of openings in the fairing must be positioned at least 50 mm above the bottom of the fairing.
- e. The lower fairing must incorporate one hole of 25 mm in the bottom of the front lower area. This hole must remain closed in dry conditions and must be only opened in wet race conditions, as declared by the Race Director.
- f. Minimal changes are allowed in the fairing to allow clearance for protective engine covers.
- g. Holes may be drilled or cut in the fairing or bodywork to allow additional increased intake air to the oil cooler. Holes bigger than 10mm must be covered with a particle grill or fine wire mesh. Grill/mesh must be painted to match the surrounding material.
- h. Original openings for cooling in the lateral fairing/bodywork sections may be partially closed only to accommodate sponsors' logos/lettering. Such modification shall be made using wire mesh or perforated plate. The material is free but the distance between all opening centers, circle centers and their diameters must be constant. Holes or perforations must have an open area ratio > 60%.

- i. Front mudguard must conform in principle to the homologated shape originally produced by the manufacturer. Front mudguards may be replaced and the use of carbon fiber or Kevlar® composites are allowed.
- j. Front mudguard may be spaced upward for increased tire clearance.
- k. Rear mudguard fixed on the swing-arm may be replaced with cosmetic duplicates of the original parts. The use of carbon fiber or Kevlar® composites are allowed.
- I. Rear mudguards fixed on the swing-arm which incorporate the chain guard may be modified to accommodate larger diameter rear sprockets.
- m. The existing rear mudguard under the seat may be removed. A mudguard may be fitted directly onto the swing-arm however it may not cover more than 120 degrees of the wheel.

# 2.5.10.11 Seat

- a. Seat, seat base and associated bodywork may be replaced with parts of similar appearance as originally produced by the manufacturer for the homologated motorcycles.
- b. The top portion of the rear body work around the seat may be modified to a solo seat.
- c. Holes may be drilled in the seat or rear cowl to allow additional cooling. Holes which are bigger than 10 mm must be covered with metal gauze or fine mesh. Mesh must be painted to match the surrounding material.
- d. The appearance from both front, rear and profile must conform in principle to the homologated shape.
- e. All exposed edges must be rounded.

# 2.5.10.12 Fasteners

- a. Standard fasteners may be replaced with fasteners of any material and design.
- b. Aluminum fasteners may only be used in non-structural locations.
- c. Titanium fasteners may be used in structural locations, but the strength and design must be equal to or exceed the strength of the standard fastener it is replacing.
- d. Special steel fasteners may be used in structural locations, but the strength and design must be equal to or exceed the strength of the standard fastener it is replacing.
- e. Fasteners may be drilled for safety wire, but intentional weightsaving modifications are not allowed.

- f. **Threads repairs may be made** using inserts of different material such as helicoils and timeserts.
- g. Fairing/bodywork fasteners may be changed to the quick disconnect type.

# 2.5.10.13 Rear Safety Light

All motorcycles must have a functioning red light mounted at the rear of the machine, this light must be switched on any time the motorcycle is on the track or being ridden in the pit lane and the session is declared WET. All lights must comply with the following:

- a. Lighting direction must be parallel to the machine center line (motorcycle running direction), and be clearly visible from the rear at least 15 degrees to both left and right sides of the machine center line.
- b. The rear light must be mounted near the end of the seat/rear bodywork and approximately on the machine center line, in a position approved by the Technical Director. In case of dispute over the mounting position or visibility, the decision of the Technical Director will be final.
- c. Power output/luminosity equivalent to approximately: 10 15 (incandescent), 0.6 1.8 W (LED).
- d. The output must be continuous no flashing safety light whilst on track, flashing is allowed in the pit lane when pit limiter is active.
- e. Safety light power supply may be separated from the motorcycle.
- f. The Technical Director has the right to refuse any light system not satisfying this safety purpose.

# 2.5.11 The following items MAY BE altered or replaced from those fitted to the homologated motorcycle

- a. Any type of lubrication, brake or suspension fluid.
- b. Instruments, their supports(s) and associated cables.
- c. Bearings (ball, roller, taper, plain, etc.) of any type or brand may be used.
- d. Gaskets and gasket materials.
- e. Painted external surface finishes and decals.

# 2.5.12 The following items MAY BE removed

- a. Emission control items (anti-pollution) in or around the air box and engine (O2 sensors, air injection devices).
- b. Tachometer.
- c. Speedometer and related wheel spacers.

d. Bolt on accessories on a rear sub frame.

# 2.5.13 The following items MUST BE removed

- a. Headlamp, rear lamp and turn signal indicators (when not incorporated in the fairing). Openings must be covered by suitable materials.
- b. Rear-view mirrors.
- c. Horn.
- d. License plate bracket.
- e. Tool box.
- f. Helmet hooks and luggage carrier hooks
- g. Passenger foot rests.
- h. Passenger grab rails.
- i. Safety bars, center and side stands must be removed (fixed brackets must remain).

# 2.5.14 The following items MUST BE altered

- a. Motorcycles must be equipped with a functional ignition kill switch or button mounted on the right hand handlebar (within reach of the hand while on the hand grips) that is capable of stopping a running engine, the button or switch must be red.
- b. All drain plugs must be wired. External oil filter(s) screws and bolts that enter an oil cavity must be safety wired (i.e. on crankcases).
- c. All motorcycles must have a closed breather system. The oil breather line must be connected and discharge in the air box.
- d. Where breather or overflow pipes are fitted they must discharge via existing outlets. The original closed system must be retained; no direct atmospheric emission is permitted.
- e. Motorcycles must be equipped with a red light on the instrument panel that will illuminate in the event of oil pressure drop (Yamaha R6 exempt).

# 2.6 SUPERSTOCK 1000 TECHNICAL SPECIFICATIONS

The following rules are intended to permit limited changes to the homologated motorcycle in the interests of safety and improved competition between various motorcycle concepts.

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

# If a change to a part or system is not specifically allowed in any of the following articles, then it is forbidden

Superstock motorcycles require an FIM homologation. All motorcycles must comply in every respect with all the requirements for road racing as specified in these Technical Regulations, unless they are already equipped as such on the homologated model.

The appearance from the front, rear and the profile of Superstock motorcycles must (except when otherwise stated) conform to the homologated shape (as originally produced by the manufacturer). The appearance of the exhaust system is excluded from this rule.

# 2.6.1 Motorcycle specifications

All parts and systems not specifically mentioned in the following articles must remain as originally produced by the manufacturer for the homologated motorcycle.

# 2.6.2 Engine configurations and displacement capacities

The following engine configurations comprise the Superstock class:

Over 750cc up to 1000cc	4-stroke	3 and 4 cylinders
Over 850cc up to 1200cc	4-stroke	2 cylinders

The displacement capacity, bore and stroke (new), must remain at the homologated size. **All machines must be normally aspirated.** 

#### 2.6.3 Balancing various motorcycle concepts

In order to equalize the performance of motorcycles used in the Superstock 1000 Championship, A system of performance enhancements or restrictions can be developed. (Such as minimum weight, air restrictor or REV Limit may be applied according to their respective racing performances.) The decision to apply a balancing system to a motorcycle will be taken by the MotoAmerica Permanent Bureau based on decisions made by the Superbike Commission at any time deemed necessary to ensure fair competition.

#### 2.6.4 Minimum weight

All machines

170kg (374 lbs)

At any time of the event, the weight of the whole motorcycle (including the tank and its contents) must not be lower than the minimum weight. Page **95** of **178**  There is no tolerance on the minimum weight of the motorcycle.

During the final technical inspection at the end of the race, the selected motorcycles will be weighed in the condition they finished the race, and the established weight limit must be met in this condition. Nothing may be added to the motorcycle. This includes all fluids.

During the practice and qualifying sessions, riders may be asked to submit their motorcycle to a weight control. In all cases the rider must comply with this request.

The use of ballast is allowed to stay over the minimum weight limit and may be required due to the handicap system. The use of ballast and weight handicap must be declared to the MotoAmerica Technical Director at the preliminary checks.

The sizes for all the front numbers are:	Minimum height:	140 mm
	Minimum width:	80 mm
	Minimum stroke:	20 mm
	Minimum space between numbers	10 mm
The size for all the side numbers is:	Minimum height:	120 mm
	Minimum width:	70 mm
	Minimum stroke:	20 mm
	Minimum space	
	between numbers	10 mm

#### 2.6.5 Numbers and Number Plates

The background colors and figures (numbers) for Superstock are red (pantone 186c) background with white numbers:

The allocated number (& plate) for the rider must be affixed on the motorcycle as follows:

- a. Once on the front, either in the center of the fairing or slightly off to one side. The number must be centered on the red background with no advertising within 25mm in all directions.
- b. Once, on each side of the motorcycle. The preferred location for the numbers on each side of the motorcycle is on the lower rear portion of the main fairing near the bottom. The number must be centered on the red background. Any change to this position must be preapproved a minimum of 2 weeks before the first race by the MotoAmerica Technical Director.
- c. The numbers must use the fonts as detailed after Art2. Any numbers not using these fonts must have the design of the numbers and the layout pre-approved by the MotoAmerica Technical Director a minimum of 2 weeks before the first race. All digits must be of standard form.

d. Any outlines must be of a contrasting color and the maximum width of the outline is 3mm. The background color must be clearly visible around all edges of the number (including outline). Reflective or mirror type numbers are not permitted.

#### e. Numbers cannot overlap.

In case of a dispute concerning the legibility of numbers, the decision of the Technical Director will be final.

#### 2.6.6 Fuel

#### Refer to Article: 2.9

#### 2.6.7 Tires

- a. The maximum number of tires, of any type, available to each rider during the event will be **specified in Article: 2.3.7**
- b. A maximum of 11 tires per rider can be mounted at any time.
- c. For both Superbike/Superstock 1000 races only, wet and intermediate tires will not need to be marked with a tire sticker. They will not be considered in the total number of tires available for use; however normal allocation limits still apply.
- d. Every tire used during the event must be marked with an adhesive sticker with a number allocated by the MotoAmerica Technical Director. The sticker will be a different color front and rear.
- e. The tire stickers will be delivered to the teams in a sealed envelope, on the day before the first practice after which the teams will be responsible for their use.
- f. The stickers must be applied to the left sidewall of the tire. Officials will check that all the motorcycles in the pit lane are fitted with tires carrying the sticker.
- g. The use of motorcycles without the official stickers will be immediately reported to the Race Direction whom will take appropriate action.
- h. Any modification or treatment (cutting, grooving) is forbidden.
- i. At the beginning of the event, the Official Supplier may be requested by the MotoAmerica Technical Director to deliver to him four (4) samples of each type of tire to be used at the event.
- j. The allocation of individual tires will be made on a random basis, with no involvement of any representative from the tire supplier, teams or riders. Those tires will be individually identified and may not be exchanged between riders, including between team mates, and may not be exchanged by the tire supplier after the allocation, except with the permission of the Race Direction.

k. In exceptional cases, should the sticker be damaged or applied in the wrong way, up to 2 extra stickers may be provided at the sole discretion of the MotoAmerica Technical Director. However, the damaged sticker must be returned to the MotoAmerica Technical Director and/or the tire it was applied to, must be absolutely intact.

# 2.6.8 Engine

# 2.6.8.1 Fuel injection system

Fuel injection systems refer to throttle bodies, fuel injectors, variable length intake tract devices, fuel pump and fuel pressure regulator.

- a. The original homologated fuel injection system must be used without any modification.
- b. The fuel injectors must be stock and unaltered from the original specification and manufacture.
- c. Air Funnels must remain as originally produced by the manufacturer for the homologated motorcycle.
- d. Butterfly valves cannot be changed or modified.
- e. Variable intake tract devices cannot be added if they are not present on the homologated motorcycle and they must remain identical and operate in the same way as the homologated system. All the parts of the variable intake tract device must remain exactly as homologated.
- f. Air and air/fuel mixture can go to the combustion chamber exclusively through the throttle body butterflies.
- g. Electronically controlled throttle valves, known as 'ride-by-wire', may be only used if the homologated model is equipped with the same system. Software may be modified but all the safety systems and procedures designed by the original manufacturer must be maintained.

# 2.6.8.2 Cylinder Head

- a. No modifications are allowed.
- b. From 2016: No material may be added or removed from the cylinder head.
- c. The gaskets may be changed.
- d. The valves, valve seats, guides, springs, tappets, oil seals, shims, cotter valve, rocker arms, spring base and spring retainers must be as originally produced by the manufacturer for the homologated motorcycle. Only normal maintenance interventions as prescribed by the Manufacturer in the service manual of the motorcycle are authorized.
- e. Valve spring shims are not allowed.

# 2.6.8.3 Camshaft

- a. No modifications are allowed.
- b. At the technical checks: for direct cam drive systems, the cam lobe lift is measured; for non-direct cam drive systems (i.e. with rocker arms), the valve lift is measured.

# 2.6.8.4 Cam sprockets or gears

- a. Cam Sprockets may be slotted to allow the adjustment of cam timing.
- b. Pressed on cam sprockets may be replaced with an adjustable boss and cam sprocket.
- c. The cam chain must remain as homologated.
- d. Cam chain tensioner must remain as homologated.

#### 2.6.8.5 Cylinders

From 2016: No modifications are allowed.

#### 2.6.8.6 Pistons

No modifications are allowed (including polishing and lightening).

#### 2.6.8.7 Piston rings

No modifications are allowed.

#### 2.6.8.8 Piston pins and clips

No modifications are allowed.

#### 2.6.8.9 Connecting rods

No modifications are allowed (including polishing and lightening).

#### 2.6.8.10 Crankshaft

No modifications are allowed (including polishing and lightening).

#### 2.6.8.11 Crankcase / Gearbox housing

# a. From 2016: Crankcases must remain as homologated. No modifications are allowed (including painting, polishing and lightening).

b. It is not allowed to add a pump used to create a vacuum in the crankcase. If a vacuum pump is installed on the homologated motorcycle then it may be used only as homologated.

#### 2.6.8.11.1 Lateral covers and protection

a. Lateral (side) covers may be altered, modified or replaced. If altered or modified, the cover must have at least the same resistance to impact as the original one. If replaced, the cover must be made in material of same or higher specific weight and the total weight of the cover must not be less than the original one.

- b. All lateral covers/engine cases containing oil and which could be in contact with the ground during a crash, must be either replaced by a 'heavier' engine cover or protected by a second cover made from metal such as aluminum alloy, stainless steel, steel or titanium, or an approved cover.
- c. Any secondary covers must cover a minimum of 1/3 of the original cover. It must have no sharp edges to damage the track surface. These covers must be fixed properly and securely with a minimum of three (3) case cover screws that also mount the original covers/engine cases to the crankcases.
- d. Plates or crash bars made from aluminum or steel also are permitted in addition to these covers. All of these devices must be designed to be resistant against sudden shocks, abrasions and crash damage.
- e. FIM approved covers will be permitted without regard of the material or dimensions.
- f. These covers must be fixed properly and securely with case cover screws that also mount the original covers/engine cases to the crankcases.
- g. No oil containing engine case may be secured with aluminum bolts.
- h. The Technical Director has the right to refuse any cover not satisfying this safety purpose.

#### 2.6.8.12 Transmission / Gearbox

- a. No modifications are allowed except shimming.
- b. Quick-shift systems are allowed (including wire and potentiometer).
- c. Countershaft sprocket, rear wheel sprocket, chain pitch and size may be changed.
- d. The sprocket cover may be modified or eliminated.
- e. Chain guard as long as it is not incorporated in the rear fender may be removed.

#### 2.6.8.13 Clutch

- a. No modifications are allowed.
- b. Only friction and drive discs may be changed, but their number must remain as original.
- c. Clutch springs may be changed.

# 2.6.8.14 Oil pumps and oil lines

- a. No pump modifications are allowed.
- b. Oil lines may be modified or replaced. Oil lines containing positive pressure, if replaced, must be of metal reinforced construction with swaged or threaded connectors.

# 2.6.8.15 Radiator, cooling system and oil cooler

- a. The only liquid engine coolants permitted will be water or water mixed with ethyl alcohol.
- b. Protective meshes may be added in front of the oil and/or water radiator(s).
- c. The cooling system hoses and catch tanks may be changed.
- d. Radiator fan and wiring may be removed. Thermal switches, water temperature sensor and thermostat may be removed inside the cooling system.
- e. Radiator cap is free.
- f. An additional water radiator may be fitted but the appearance of the front, the rear and the profile of the motorcycle must not be changed. Extra mounting brackets to accommodate the additional radiator are permitted.

#### 2.6.8.16 Air box

- a. The air box must remain as originally produced by the manufacturer on the homologated motorcycle but the air box drains must be sealed.
- b. The air filter element may be modified or replaced but must be mounted in the original position.
- c. The air box drains must be sealed.
- d. All motorcycles must have a closed breather system. All oil breather lines must be connected and discharge in the airbox.
- e. Additional heat shielding is not allowed (i.e. gold or silver heat tape).

#### 2.6.8.17 Fuel supply

- a. Fuel pump and fuel pressure regulator must remain as homologated.
- b. The fuel pressure must be as homologated.
- c. Fuel lines from the fuel tank to the delivery pipe assembly (excluded) may be replaced.
- d. Quick connectors or dry break connectors may be used.
- e. Fuel vent lines may be replaced.
- f. Fuel filters may be added.

# 2.6.8.18 Exhaust system

- a. Exhaust pipes and silencers may be modified or changed. Catalytic converters must be removed.
- b. The number of the final exhaust silencer(s) must remain as homologated. The silencer(s) must be on the same side(s) of the homologated model.
- c. For safety reasons, the exposed edges of the exhausts pipe(s) outlet must be rounded to avoid any sharp edges.
- d. Wrapping of exhaust systems is not allowed except in the area of the rider's foot or an area in contact with the fairing for protection from heat.
- e. The noise limit for Superstock will be 115 dB/A (with a 3 dB/A tolerance after the race only) except for where local rules prevail.

# 2.6.9 Electrics and electronics

# 2.6.9.1 Ignition / Engine Control System (ECU)

- a. The engine control system (ECU) must be an ECU (Kit or OEM) applicable to the specific homologated model. The ECU may have its software changed, but the ECU may not be physically modified.
- b. The system may have FIM/DWO/MotoAmerica approved external ignition and/or injection module/s added.
- c. The total combined retail price (software and tuning tools included) on sale to the general public cannot be higher than €3000 (tax excluded) or €3750 if it is a kit ECU than includes data logging facility.
- d. Central unit (ECU) may be relocated.
- e. Optional equipment sold by the motorcycle Manufacturer for the homologated model is considered not homologated with the bike and must follow the requirements for approved electronics/data loggers.
- f. During an event the Technical Director has the right to ask a team to substitute their ECU or external module with the sample received from the Manufacturer. The change has to be done before Sunday warm up.
- g. No extra sensors may be added for control strategies except shift rod sensor, wheel speed sensors and lambda sensors. Wheel speed sensors must be included in the Kit ECU and Harness package if required.
- h. Other additional electronic hardware equipment not on the original homologated motorcycle cannot be added with the exceptions noted below.
- i. The characteristics of approved data logging systems must be the following:

- 1. Maximum retail price of the unit (hardware + software, excluding sensors and wiring harness) cannot exceed €3.000 Euro (VAT excluded) if it is a standalone unit.
- Maximum retail price of the unit if incorporated into the ECU (hardware + software, excluding sensors and wiring harness) is €3750
- 3. The Data Logger unit must be available for sale to the public and on the list of FIM/DWO/MotoAmerica 'Superbike EVO' approved data loggers.
- 4. A maximum of 7 simultaneous working sensors (connected to the additional data logger) may be added to the original sensors on the motorcycle. **The sensors must be from the following list:** 
  - Lambda (must be supplied in the kit if used for strategy).
  - Fork position
  - Shock position
  - Front brake pressure
  - Rear brake pressure
  - Fuel pressure (not temperature)
  - Oil pressure
  - Oil temperature
  - Transponder / Lap time signal
  - GPS Unit (Lap timing and track position)
- 5. The sensors must be simple-function. No inertial platforms are allowed (if an inertial platform is not installed originally on the homologated motorcycle).
- 6. CAN (or other data) communication from the ECU to an approved data logger (logger can receive data only, no data transmission is allowed) is allowed without any limitation in CAN channel logger number.
- j. The maximum total price of other active/control/calculation units such as lambda driver modules, quick shifter, and analogue to CAN and traction control units is €750. These devices must be approved by FIM/DWO/MotoAmerica.
- k. Telemetry is not allowed.
- I. No remote or wireless connection to the bike for any data exchange or setting is allowed whilst the engine is running or the bike is moving.
- m. Harness:
  - 1. The main wiring harness may be replaced by the kit wire harness as supplied for the Kit ECU model, produced and/or approved by the manufacturer of the motorcycle and by FIM/DWO/MotoAmerica.
  - 2. The Kit wiring harness may incorporate the data logging harness.

- 3. A kit harness that incorporates the data logging harness may only accommodate 7 additional sensors.
- 4. A sample of the kit wiring harness may be requested by the FIM/MotoAmerica.
- 5. The key/ignition lock may be relocated, replaced, or removed.
- 6. Cutting of the original main wiring harness is allowed.
- n. Data logger Harness:

The Data Logger wire harness cannot include any other sensors with the exception of the seven sensors that are allowed. The only function of the approved Data Logger wire harness is to connect the seven sensors to the Data Logger, to transmit the data and supply the power.

- o. For the Superstock Kit to be approved, samples of the ECU kits, kit harnesses and external modules with their tuning tools must be sent by the Manufacturers to the MotoAmerica Technical Director, with technical data and selling price.
- p. For the ignition and or injection module, quick shifter or standalone data logger to be approved, samples must be sent by the manufacturer of the device to the MotoAmerica Technical Director with technical data and selling price.
- q. The original speedometer and tachometer may be altered or replaced (see also 2.6.11).
- r. Spark plugs may be replaced.
- s. Battery is free.

#### 2.6.9.2 Generator, alternator, electric starter

- a. No modifications are allowed.
- b. The electric starter must operate normally and always be able to start the engine during the event.

# 2.6.10 Main frame and pre-assembled spare frame

- a. During the entire duration of the event, each rider may only use one (1) complete motorcycle, as presented for Technical Control, with the frame clearly identified with a seal. In case the frame needs to be replaced, the rider or the team must request the use of a spare frame to the MotoAmerica Technical Director.
- b. One (1) Spare complete motorcycle is allowed per rider.
- c. A team may opt to have one (1) spare machine shared by two or more riders.

**Explanation of Procedures:** 

• Only one (1) complete motorcycle may be presented for the preliminary technical checks and it will be the only motorcycle

allowed on the track and in the front of pit box during the practices, qualifying, Superpole and races.

- The frame of this motorcycle will be officially sealed by the MotoAmerica Technical Director or by his appointed staff. The seal will bear a serial number, which will be recorded. Any attempt made to remove the seal will damage it irreparably.
- At any time during the event the technical stewards, under the direction of the MotoAmerica Technical Director, may check the seal and verify that it conforms to the motorcycle and rider it was assigned to. For cross reference, every frame must have a unique number (VIN) punched on it, on the steering-head.
- If the motorcycle is damaged in a crash or in any other incident and is declared unrepairable (safely and in the available time) by the MotoAmerica Technical Director or his appointed staff then the seal on the damaged motorcycle will be destroyed by the technical staff and the chassis of this motorcycle must not be used for the remainder of the event. The new serial number will be recorded by the MotoAmerica Technical Director. The spare machine may then be presented for scrutineering before the next session.
- The replacement motorcycle may be used on the track only after the end of the practice and qualifying sessions or race in which the damage occurred. The damaged motorcycle must be removed from the front of the pit box as soon as possible and put in storage at the back of the pit box out of view of pit lane.
- Once a rider exits the pit lane for any session including the race the spare machine can no longer be used.
- Any actions contrary to these procedures will result in a penalty as described in the Sporting Regulations.
- The damaged frame may be impounded by the MotoAmerica Technical Director for later examination.

#### Under Consideration for 2017:

During the entire duration of the event, each rider can only use one (1) complete motorcycle, as presented for Technical Control, with the frame clearly identified with a seal. In case the frame needs to be replaced, the rider or the team can request the use of a spare frame to the MotoAmerica Technical Director.

The pre-assembled spare frame must be presented to the MotoAmerica Technical Director to receive the permission to rebuild the motorcycle. The pre-assembly of the frame shall be strictly limited to:

- Main frame
- Bearings (steering pipe, swing arm , etc)

- Swing arm
- Rear suspension linkage and shock absorber
- Upper and lower triple clamps
- Wiring harness

The spare frame will not be allowed in the pit box before the rider or the team has received authorization from the MotoAmerica Technical Director.

Prior to use, the motorcycle, once rebuilt, must be inspected the technical stewards for safety checks and a new seal will be placed on the motorcycle frame.

#### **EXPLANATION OF THE PROCEDURES**

Only one (1) complete motorcycle may be presented for the preliminary technical checks and it will be the only motorcycle allowed on the track and in the pit box during the practices, qualifying, warm up and race.

The frame of this motorcycle will be officially sealed by the MotoAmerica Technical Director or by his appointed staff. The seal will bear a serial number, which will be recorded. Any attempt made to remove the seal will damage it irreparably.

At any time during the event the technical stewards, under the direction of the MotoAmerica Technical Director, may check the seal and verify that it conforms to the motorcycle and rider it was assigned to. For cross reference, every frame must have a unique number punched on it, preferably on the steering-head.

If the motorcycle is damaged in a crash or in any other incident, it is allowed to use the pre-assembled spare frame to rebuild the motorcycle.

The spare frame may be pre-assembled with the following items: main frame assembly, swing-arm, rear suspension linkage, shockabsorber, steering head bearings, upper and lower triple clamps and wiring harness.

When a team decides that a crashed or damaged motorcycle requires a change of frame, it must inform the MotoAmerica Technical Director. Only at this point may the pre-assembled spare frame be brought into the pit box.

Parts may be transferred from the damaged motorcycle for the assembly of the replacement motorcycle.

Once the assembly of the replacement motorcycle is completed, it will then undergo technical and safety checks and it will be officially sealed. The seal on the damaged motorcycle will be destroyed by the technical staff and the chassis of this motorcycle must not be used for the remainder of the event. The new serial number will be recorded by the MotoAmerica Technical Director.

The replacement motorcycle may be used on the track only after the end of the practice and qualifying sessions or race in which the damage occurred. The damaged motorcycle must be removed from the pit box as soon as possible and put in storage outside the pit box.

After the pre-assembled spare part frame has been used, should it become necessary to replace the frame again because of a further crash or damage, the assembly work must be done using a bare frame with no components attached. The MotoAmerica Technical Director must inspect the bare frame and give his approval before work can start.

Any actions contrary to these procedures will result in a penalty as described in the Sporting Regulations.

#### 2.6.10.1 Frame body and rear sub frame

- a. The frame must remain as originally produced by the manufacturer for the homologated motorcycle.
- b. Holes may be drilled on the frame only to fix approved components (i.e. fairing brackets, steering damper mount, sensors).
- c. The sides of the frame-body may be covered by a protective part made of a composite material. These protectors must fit the form of the frame.
- d. Nothing else may be added or removed from the frame body.
- e. All motorcycles must display a vehicle identification number punched on the frame body (chassis number).
- f. Engine mounting brackets or plates must remain as originally produced by the manufacturer for the homologated motorcycle.
- g. Front sub frame / fairing mount may be changed or altered.
- h. Rear sub frame may be changed or altered, but the type of material must remain as homologated, or material of a higher specific weight.
- Additional seat brackets may be added, non-stressed protruding brackets may be removed if they do not affect the safety of the construction or assembly. Bolt-on accessories to the rear sub-frame may be removed.
- j. The paint scheme is not restricted but polishing the frame body or sub frame is not allowed.

#### 2.6.10.2 Front Forks

a. Participants in the Superstock 1000 class must only use parts appearing in the MotoAmerica Eligible Equipment List.

- b. Forks (stanchions, stem, wheel spindle, upper and lower crown, etc.) must remain as originally produced by the manufacturer for the homologated motorcycle.
- c. The upper and lower fork clamps (triple clamp, fork bridges) must remain as originally produced by the manufacturer on the homologated motorcycle.
- d. Steering stem pivot position must remain in the homologated position (as supplied on the production bike). If the standard bike has inserts then the orientation/position of the original insert may be changed but the insert cannot be replaced or modified.
- e. A steering damper may be added or replaced with an after-market damper.
- f. The steering damper cannot act as a steering lock limiting device.
- g. Fork caps on the mechanical forks may only be modified or replaced to allow external adjustment. (This does not include the mechanical fork leg that is part of the homologated electronic fork set).
- h. Dust seals may be modified, changed or removed if the fork remains totally oil-sealed.
- i. Mechanical Forks: Original internal parts of the homologated forks may be modified or changed. After market damper kits or valves may be installed. The original surface finish of the fork tubes (stanchions, fork pipes) may be changed. Additional surface treatments are allowed.
- j. Electronic Forks: No aftermarket or prototype electronically-controlled suspension parts may be used. Electronic suspension may be used if such suspension is already present on the production model of the homologated motorcycle, and it must remain completely standard (all mechanical and electronic parts must remain as homologated) with the exception of shims and springs. The original suspension system must work safely in the event of an electronic failure. The electronic front suspension may be replaced with a mechanical system from a similar homologated model from the same manufacturer.
- k. Electronic forks may have their complete internal parts (including all electronic control) replaced with a conventional damping system and it will be considered as a mechanical fork.

# 2.6.10.3 Rear fork (Swing arm)

- a. The rear fork must remain as originally produced by the manufacturer for the homologated motorcycle.
- b. A chain guard must be fitted in such a way as to reduce the possibility that any part of the riders' body may become trapped between the lower chain run and the rear wheel sprocket.
- c. Rear fork pivot bolt must remain as originally produced by the manufacturer for the homologated motorcycle.

- d. Rear pivot position must remain in the homologated position (as supplied on the production bike). If the standard bike has inserts then the orientation/position of the original insert may be changed but the insert cannot be replaced or modified.
- e. Rear wheel stand brackets may be added to the rear fork by welding or by bolts. Brackets must have rounded edges (with a large radius). Fastening screws must be recessed. An anchorage system or point(s) to keep the original rear brake caliper in place may be added to the rear swing-arm.

# 2.6.10.4 Rear suspension

- a. Participants in the Superstock 1000 class must only use parts appearing in the MotoAmerica Eligible Equipment List.
- b. All rear suspension linkage parts must remain as originally produced by the manufacturer for the homologated motorcycle.
- c. Mechanical Suspension: Rear suspension unit (shock absorber) may be modified or replaced, but the original attachments to the frame and rear fork (swing arm) must be as homologated.
- d. Electronic suspension may be used if such suspension is already present on the production model of the homologated motorcycle, and it must remain completely standard (all mechanical and electronic parts must remain as homologated with the exception of shims and springs). The original suspension system must work properly and safely in the event of an electronic failure. The electronic shock absorber can be replaced with a mechanical one.

# 2.6.10.5 Wheels

- a. Wheels must remain as originally produced by the manufacturer for the homologated motorcycle.
- b. A non-slip coating / treatment may be applied to the bead area of the rim.
- c. If the original design includes a cushion drive for the rear wheel, it must remain as originally produced for the homologated motorcycle.
- d. Wheel axles must remain as homologated, wheel spacers may be modified or replaced.
- e. Wheel balance weights may be discarded, changed or added.
- f. Any inflation valves may be used.

# 2.6.10.6 Brakes

- a. Front brake master cylinder may be altered or replaced from those fitted to the homologated motorcycle.
- b. Front brake calipers may be altered or replaced from those fitted to the homologated motorcycle.

- c. Rear brake master cylinder may be altered or replaced from those fitted to the homologated motorcycle.
- d. Rear brake calipers may be altered or replaced from those fitted to the homologated motorcycle.
- e. Brake pads or shoes may be altered or replaced from those fitted to the homologated motorcycle.
- f. Brake hoses and brake couplings may be altered or replaced from those fitted to the homologated motorcycle. The split of the front brake lines for both front brake calipers must be made above the lower fork bridge (lower triple clamp).
- g. Brake discs may be altered or replaced from those fitted to the homologated motorcycle. Only ferrous materials are allowed for brake discs. The use of exotic alloy materials for brake calipers (i.e. aluminum-beryllium, etc.) is not allowed.
- h. The Anti-Lock Brake System (ABS) may be used only if installed in the homologated model for road use. However, it must be completely standard (any mechanical or electronic part must remain as homologated, brake discs and master cylinder levers excluded), and only the software of the ABS may be modified.
- i. The Anti-Lock Brake System (ABS) can be disconnected and its ECU can be dismantled. The ABS rotor wheel can be deleted, modified or replaced.
- j. Motorcycles must be equipped with brake lever protection, intended to protect the handlebar brake lever from being accidentally activated in case of collision with another motorcycle. Composite guards are not permitted. FIM approved guards will be permitted without regard to the material.
- k. The Technical Director has the right to refuse any guard not satisfying this safety purpose.
- I. Under consideration for 2017- Only homologated master cylinder and calipers will be allowed.

#### 2.6.10.7 Handlebars and hand controls

- a. Handlebars may be replaced.
- b. Handlebars and hand controls may be relocated.
- c. Throttle controls must be self-closing when not held by the hand.
- d. Throttle assembly and associated cables may be modified or replaced but the connection to the throttle body and to the throttle controls must remain as on the homologated motorcycle.
- e. Clutch and brake lever may be replaced with an after-market model. An adjuster to the brake lever is allowed.

- f. Switches may be changed but the electric starter switch and engine stop switch must be located on the handlebars.
- g. Motorcycles must be equipped with a functional ignition kill switch or button mounted on the right hand handlebar (within reach of the hand while on the hand grips) that is capable of stopping a running engine. The button or switch must be RED.

#### 2.6.10.8 Foot rest / Foot controls

- a. Foot rest/foot controls may be relocated but brackets must be mounted to the frame in the original mounting points.
- b. Foot rests may be rigidly mounted or a folding type which must incorporate a device to return them to the normal position.
- c. The end of the foot rest must have at least an 8 mm solid spherical radius.
- d. Non folding footrests must have an end (plug) which is permanently fixed, made of aluminum, plastic, Teflon® or an equivalent type material (minimum radius 8mm). The plug surface must be designed to reach the widest possible area.
- e. The MotoAmerica Technical Director has the right to refuse any plug not satisfying this safety aim.

#### 2.6.10.9 Fuel tank

- a. Fuel tank must begin as originally produced by the manufacturer for the homologated motorcycle. If the standard tank is of insufficient capacity to achieve full race distance then with the prior agreement of the technical director, the tank may be modified to increase its fuel capacity, but must maintain its original external appearance.
- b. All fuel tanks must be completely filled with fire retardant material (i.e. fuel tank foam)
- c. Fuel tanks with tank breather pipes must be fitted with non-return valves that discharge into a catch tank with a minimum volume of 250cc made of a suitable material.
- d. Fuel caps may be changed. Fuel caps when closed must be leak proof. Additionally, they must be securely locked to prevent accidental opening at any time.
- e. The sides of the fuel tank may be protected with a cover made of a composite material. These covers must fit the shape of the fuel tank.

# 2.6.10.10 Fairing / Bodywork

a. Fairing and bodywork may be replaced with exact cosmetic duplicates of the original parts, but must appear to be as originally produced by the manufacturer for the homologated motorcycle, with slight differences due to the racing use (different pieces mix, fixing points, fairing bottom, etc.). The material may be changed. The use of carbon fiber or carbon composite materials is not allowed. Specific reinforcements in Kevlar® or carbon are allowed locally around holes and stressed areas.

- b. Overall size and dimensions must be the same as the original part.
- c. Wind screen may be replaced with an aftermarket product. The height of the windscreen is free **but must be** within a tolerance of +/- 15 mm referred to the vertical distance from/to the upper fork bridge. The screen must conform to the same profile from the front as the original no double bubble or wide types. From a top view the length of the windscreen may be shortened by 25mm to allow clearance for the rider. The edge of the screen must have no sharp edges.
- d. Motorcycles that are not originally equipped with streamlining are not allowed to add streamlining in any form, with the exception of a lower fairing device, as described in point (g). This device cannot exceed above a line drawn horizontally from wheel axle to wheel axle and must follow the specifications described at point (g).
- e. The original combination instrument/fairing brackets may be replaced, but the use of titanium and carbon (or similar composite materials) is forbidden. All other fairing brackets may be altered or replaced.
- f. The original air ducts running between the fairing and the air box may be altered or replaced. Carbon fiber composites and other exotic materials are forbidden. Particle grills or "wire-meshes" originally installed in the openings for the air ducts may be removed.
- g. The lower fairing must to be constructed to hold, in case of an engine breakdown minimum 6 liters. The lower edge of all the openings in the fairing must be positioned at least 70 mm above the bottom of the fairing.
- h. The upper edge of the rear transverse wall of the lower fairing must be at least 70 mm above the bottom. The angle between this wall and the floor must be  $\leq 90^{\circ}$ .
- i. Original openings for cooling in the lateral fairing/bodywork sections may be partially closed only to accommodate sponsors' logos/lettering. Such modification shall be made using wire mesh or perforated plate. The material is free but the distance between all opening centers, circle centers and their diameters must be constant. Holes or perforations must have an open area ratio > 60%.
- j. The lower fairing must incorporate a single opening of Ø 25 mm diameter in the front lower area. This hole must remain sealed in dry conditions and must be only opened in wet race conditions as declared by the Race Director.
- k. Front mudguards may be replaced with a cosmetic duplicate of the original parts and may be spaced upward for increased tire clearance.

- I. Rear mudguard fixed on the swing arm may be modified, changed or removed.
- m. Motorcycles may be equipped with inner ducts to improve the air stream towards the radiator but the appearance of the front, the rear and the profile of the motorcycle must not be changed.

# 2.6.10.11 Seat

- a. Seat, seat base and associated bodywork may be replaced with parts of similar appearance as originally produced by the manufacturer for the homologated motorcycle. The appearance from front, rear and profile must conform to the homologated shape
- b. The top portion of the rear bodywork around the seat may be modified to a solo seat.
- c. The homologated seat locking system (with plates, pins, rubber pads etc.) may be removed.

# 2.6.10.12 Rear Safety Light

All motorcycles must have a functioning red light mounted at the rear of the machine; this light must be switched on any time the motorcycle is on the track or being ridden in the pit-lane and the session is declared wet. All lights must comply with the following:

- a. Lighting direction must be parallel to the machine center line (motorcycle running direction), and be clearly visible from the rear at least 15 degrees to both left and right sides of the machine center line.
- b. The rear light must be mounted near the end of the seat/rear bodywork and approximately on the machine center line, in a position approved by the Technical Director. In case of dispute over the mounting position or visibility, the decision of the Technical Director will be final.
- c. Power output/luminosity equivalent to approximately: 10 15 (incandescent), 0.6 1.8 W (LED).
- d. The output must be continuous no flashing safety light whilst on track, flashing is allowed in the pit lane when pit limiter is active.
- e. Safety light power supply may be separated from the motorcycle.
- f. The MotoAmerica Technical Director has the right to refuse any light system not satisfying this safety purpose.

# 2.6.10.13 Fasteners

a. Standard fasteners may be replaced with fasteners of any material and design but titanium fasteners cannot be used. The strength and design must be equal to or exceed the strength of the standard fastener.

- b. Fasteners may be drilled for safety wire, but intentional weightreduction modifications are not allowed.
- c. Thread repairs may be made using inserts of different material such as helicoils and timeserts.
- d. Fairing / bodywork fasteners may be replaced with the quick disconnect type.
- e. Aluminum fasteners may only be used in non-structural locations.

# 2.6.11 The following items MAY be altered or replaced from those fitted to the homologated motorcycle

- a. Any type of lubrication, brake or suspension fluid may be used.
- b. Gaskets and gasket materials.
- c. Instruments, instrument bracket(s) and associated cables.
- d. Painted external surface finishes and decals.
- e. Material for brackets connecting non original parts (fairing, exhaust, instruments, etc.) to the frame (or engine) cannot be made from titanium or fiber reinforced composites.
- f. Protective covers for the frame, chain, footrests, etc. may be made in other materials like fiber composite material if these parts do not replace original parts mounted on the homologated model.

# 2.6.12 The following items MAY BE Removed

- a. Emission control items (anti-pollution) in or around the air box and engine (O2 sensors, air injection devices).
- b. Tachometer.
- c. Speedometer.
- d. Chain guard as long as it is not incorporated in the rear fender.
- e. Bolt-on accessories on a rear sub frame.

#### 2.6.13 The following items MUST BE Removed

- a. Headlamp, rear lamp and turn signal indicators (when not incorporated in the fairing). Openings must be covered by suitable materials.
- b. Rear-view mirrors.
- c. Horn.
- d. License plate bracket.
- e. Toolkit.
- f. Helmet hooks and luggage carrier hooks.
- g. Passenger foot rests.

- h. Passenger grab rails.
- i. Safety bars, center and side stands must be removed (fixed brackets must remain).

# 2.6.14 The following items MUST BE altered

- a. Motorcycles must be equipped with a functional ignition kill switch or button mounted on the right hand handlebar (within reach of the hand while on the hand grips) that is capable of stopping a running engine, the button or switch must be red.
- b. All drain plugs must be wired. External oil filter(s) screws and bolts that enter an oil cavity must be safety wired (i.e. on crankcases).
- c. All motorcycles must have a closed breather system. The oil breather line must be connected and discharge in the airbox.
- d. Where breather or overflow pipes are fitted they must discharge via existing outlets. The original closed system must be retained: no direct atmospheric emission is permitted.
- e. Motorcycles must be equipped with a red light on the instrument panel that will illuminate in the event of oil pressure drop.

# 2.7 SUPERSTOCK 600 TECHNICAL SPECIFICATIONS

The following rules are intended to permit limited changes to the homologated motorcycle in the interest of safety and improved competition between various motorcycle concepts.

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

If a change to a part or system is not specifically allowed in any of the following articles, then it is forbidden.

Superstock motorcycles require an FIM homologation (see Appendix FIM Homologation procedure for Superstock, Supersport and Superbike motorcycles.) All motorcycles must comply in every respect with all the requirements for road racing as specified in these Technical Regulations, unless that are already equipped as such on the homologated model.

# For 2016: 2013-2015 Kawasaki ZX-6R (636) is accepted as homologated for 2016 MotoAmerica competition.

The appearance from the front, rear and the profile of Superstock motorcycles must (except when otherwise state) conform to the homologated shape (as originally produced by the manufacturer). The appearance of the exhaust system is excluded from this rule.

#### 2.7.1 Motorcycle specifications

All parts and systems not specifically mentioned in the following articles must remain as originally produced by the manufacturer for the homologated motorcycle.

# 2.7.2 Engine configurations and displacement capacities

The following engine configurations comprise the Superstock class:

Over 401cc up to 600cc	4-stroke	4 cylinders
Over 401cc up to 675cc	4-stroke	3 cylinders

The displacement capacity, bore and stroke (new), must remain at the homologated size. All machines must be normally aspirated.

#### 2.7.3 Balancing various motorcycle concepts

In order to equalize the performance of motorcycles used in the Superstock 600 Championship, A system of performance enhancements or restrictions can be developed. (Such as minimum weight, air restrictor or REV Limit may be applied according to their respective racing performances.) The decision to apply a balancing system to a motorcycle will be taken by the MotoAmerica Permanent Bureau based on decisions made by the Superbike Commission at any time deemed necessary to ensure fair competition.

#### 2.7.4 Minimum weight

Over 401cc up to 600cc	4 cylinders	164kg (360.8lbs)
Over 401cc up to 675cc	3 cylinders	164kg (360.8lbs)

For 2016: 2013-2016 Kawasaki ZX-6R (636) minimum weight- 166 kg (365.2 lbs)

At any time of the event, the weight of the whole motorcycle (including the tank and its contents) must not be lower than the minimum weight.

There is no tolerance on the minimum weight of the motorcycle.

During the final technical inspection at the end of the race, the selected motorcycles will be weighed in the condition they finished the race, and the established weight limit must be met in this condition. Nothing may be added to the motorcycle. This includes all fluids.

During the practice and qualifying sessions, riders may be asked to submit their motorcycle to a weight control. In all cases the rider must comply with this request.

The use of ballast is allowed to stay over the minimum weight limit and may be required due to the handicap system. The use of ballast and weight handicap must be declared to the MotoAmerica Technical Director at the preliminary checks.

#### 2.7.5 Numbers and Number Plates

The background colors and figures (numbers) for Superstock 600 are red (pantone 186c) background with yellow (pantone yellow) numbers:

The sizes for all the front numbers are: Minimum height: Minimum width:		140 mm 80 mm
	Minimum stroke:	20 mm
	Minimum space between numbers	10 mm
The size for all the side numbers is:	Minimum height:	20 mm
	Minimum width:	70 mm
	Minimum stroke:	20 mm
	Minimum space between numbers:	10 mm

The allocated number (& plate) for the rider must be affixed on the motorcycle as follows:

- a. Once on the front, either in the center of the fairing or slightly off to one side. The number must be centered on the red background with no advertising within 25mm in all directions.
- b. Once, on each side of the motorcycle. The preferred location for the numbers on each side of the motorcycle is on the lower rear portion of the main fairing near the bottom. The number must be centered on the red background. Any change to this position must be preapproved a minimum of 2 weeks before the first race by the MotoAmerica Technical Director.
- c. The numbers must use the fonts as detailed after Art2. Any numbers not using these fonts must have the design of the numbers and the layout pre-approved by the MotoAmerica Technical Director a minimum of 2 weeks before the first race. All digits must be of standard form.
- d. Any outlines must be of a contrasting colour and the maximum width of the outline is 3mm. The background color must be clearly visible around all edges of the number (including outline). Reflective or mirror type numbers are not permitted.

#### e. Numbers cannot overlap

In case of a dispute concerning the legibility of numbers, the decision of the MotoAmerica Technical Director will be final.

2.7.6 Fuel

**Refer to Article: 2.9** 

2.7.7 Tires

- a. Tires must be a fully molded type carrying all size and sidewall markings of the tires for commercial sale to the public. The depth of the tire treads must be at least 2.5 mm over the entire tire pattern width at pre-race control. The tires must have a positive and negative tread of 96% positive and minimum 4% negative (land and sea ratio). The maximum distance from the external edge of the tire to 50% of the tread elements is 35 mm.
- b. The maximum number of tires, of any type, available to each rider during the event will be **specified in Article: 2.3.7**
- c. For the Superstock 600 race only, wet and intermediate tires will not need to be marked with a tire sticker. They will not be considered in the total number of tires available for use, However normal allocation limits still apply.
- d. Every tire used during the event must be marked with an adhesive sticker with a number allocated by the MotoAmerica Technical Director. The sticker will be a different color front and rear.
- e. The tire stickers will be delivered to the teams in a sealed envelope, on the day before the first practice after which the teams will be responsible for their use.
- f. Officials will check that all the motorcycles in the pit lane are fitted with tires carrying the sticker.
- g. The use of motorcycles without the official stickers will be immediately reported to the Race Direction whom will take appropriate action.
- h. Tire stickers must be mounted to the left sidewall.
- i. Any modification or treatment (cutting, grooving) is forbidden.
- j. At the beginning of the event, the Official Supplier may be requested by the MotoAmerica Technical Director to deliver to him four (4) samples of each type of tire to be used at the event.
- k. The allocation of individual tires will be made on a random basis, with no involvement of any representative from the tire supplier, teams or riders. Those tires will be individually identified and may not be exchanged between riders, including between team mates, and may not be exchanged by the tire supplier after the allocation, except with the permission of the Race Direction.
- I. In exceptional cases, should the sticker be damaged or applied in the wrong way, up to 2 extra stickers may be provided at the sole discretion of the MotoAmerica Technical Director. However, the damaged sticker must be returned to the MotoAmerica Technical Director and/or the tire it was applied to, must be absolutely intact.

# 2.7.8 Engine

# 2.7.8.1 Fuel injection system

- **2.7.8.1.1** Fuel injection systems refer to throttle bodies, fuel injectors, variable length intake tract devices, fuel pump and fuel pressure regulator.
  - a. The original homologated fuel injection system must be used without any modification.
  - b. The fuel injectors must be stock and unaltered from the original specification and manufacture.
  - c. Bell mouths must remain as originally produced by the manufacturer for the homologated motorcycle.
  - d. Butterfly valves cannot be changed or modified.
  - e. Variable intake tract devices cannot be added if they are not present on the homologated motorcycle and they must remain identical and operate in the same way as the homologated system. All parts of the variable intake tract device must remain exactly as homologated.
  - f. Air and air/fuel mixture can go to the combustion chamber exclusively through the throttle body butterflies.
  - g. Electronically controlled throttle valves, known as 'ride-by-wire', may be only used if the homologated model is equipped with the same system.

Software may be modified but all the safety systems and procedures designed by the original manufacturer must be maintained.

# 2.7.8.2 Cylinder Head

a. No modifications are allowed.

# b. From 2016: No material may be added or removed from the cylinder head.

- c. The gaskets may be changed.
- d. The valves, valve seats, guides, springs, tappets, oil seals, shims, cotter valve, spring base and spring retainers must be as originally produced by the manufacturer for the homologated motorcycle. Only normal maintenance interventions as prescribed by the Manufacturer in the service manual of the motorcycle are authorized.
- e. Valve spring shims are not allowed.

# 2.7.8.3 Camshaft

- a. No modifications are allowed.
- b. At the technical checks: for direct cam drive systems, the cam lobe lift is measured; for non-direct cam drive systems (i.e. with rocker arms), the valve lift is measured.

# 2.7.8.4 Cam sprockets or gears

- a. Cam Sprockets may be slotted to allow the adjustment of cam timing.
- b. Pressed on cam sprockets may be replaced with an adjustable boss and cam sprocket.
- c. The cam chain must remain as homologated.
- d. Cam chain tensioner must remain as homologated.

#### 2.7.8.5 Cylinders

#### From 2016: No modifications are allowed.

#### 2.7.8.6 Pistons

No modifications are allowed (including polishing and lightening).

#### 2.7.8.7 Piston rings

No modifications are allowed.

2.7.8.8 Piston pins and clips

No modifications are allowed.

#### 2.7.8.9 Connecting rods

No modifications are allowed (including polishing and lightening).

#### 2.7.8.10 Crankshaft

No modifications are allowed (including polishing and lightening).

# 2.7.8.10.1 Crankcase / Gearbox housing

# a. From 2016: Crankcases must remain as homologated. No modifications are allowed (including painting, polishing and lightening).

b. It is not allowed to add a pump used to create a vacuum in the crankcase. If a vacuum pump is installed on the homologated motorcycle then it may be used only as homologated.

# 2.7.8.10.2 Lateral covers and protection

- a. Lateral (side) covers may be altered, modified or replaced. If altered or modified, the cover must have at least the same resistance to impact as the original one. If replaced, the cover must be made in material of same or higher specific weight and the total weight of the cover must not be less than the original.
- b. All lateral covers/engine cases containing oil and which could be in contact with the ground during a crash, must be either replaced by a 'heavier' engine cover or protected by a second cover made from metal such as aluminum alloy, stainless steel, steel or titanium, or an approved cover.

- c. Any secondary covers must cover a minimum of 1/3 of the original cover. It must have no sharp edges to damage the track surface. These covers must be fixed properly and securely with a minimum of three (3) case cover screws that also mount the original covers/engine cases to the crankcases.
- d. Plates or crash bars made from aluminum or steel also are permitted in addition to these covers. All of these devices must be designed to be resistant against sudden shocks, abrasions and crash damage.
- e. FIM approved covers will be permitted without regard of the material or dimensions.
- f. These covers must be fixed properly and securely with case cover screws that also mount the original covers/engine cases to the crankcases.
- g. No oil containing engine case may be secured with aluminum bolts.
- h. The Technical Director has the right to refuse any cover not satisfying this safety purpose.

# 2.7.8.11 Transmission / Gearbox

- a. No modifications are allowed except shimming.
- b. Quick-shift systems are allowed (including wire and potentiometer).
- c. Countershaft sprocket, rear wheel sprocket, chain pitch and size may be changed.
- d. The sprocket cover may be modified or eliminated.
- e. Chain guard as long as it is not incorporated in the rear fender may be removed.

# 2.7.8.12 Clutch

- a. Clutch system (wet or dry type) and the method of operation (by cable or hydraulic) must remain as homologated.
- b. Friction and drive discs may be changed.
- c. Clutch springs may be changed.
- d. The clutch basket (outer) may be reinforced.
- e. The original clutch assembly may be modified or replaced by an aftermarket clutch, also including back torque limiting capabilities (slipper type).
- f. No power source (i.e. hydraulic or electric) can be used for gear selection, if not installed in the homologated model for road use. Human power is excluded from the ban.

# 2.7.8.13 Oil pumps and oil lines

a. No pump modifications are allowed.

b. Oil lines may be modified or replaced. Oil lines containing positive pressure, if replaced, must be of metal reinforced construction with swaged or threaded connectors.

# 2.7.8.14 Radiator, cooling system and oil cooler

- a. The only liquid engine coolants permitted will be water or water mixed with ethyl alcohol.
- b. Protective meshes may be added in front of the oil and/or water radiator(s).
- c. The cooling system hoses and catch tanks may be changed.
- d. Radiator fan and wiring may be removed. Thermal switches, water temperature sensor and thermostat may be removed inside the cooling system.
- e. Radiator cap is free.

# 2.7.8.15 Air box

- a. The air box must remain as originally produced by the manufacturer on the homologated motorcycle but the air box drains must be sealed.
- b. The air filter element may be modified or replaced but must be mounted in the original position.
- c. The air box drains must be sealed.
- d. All motorcycles must have a closed breather system. All the oil breather lines must be connected and discharge in the airbox.
- e. Additional heat shielding is not allowed (i.e. gold or silver heat tape).

# 2.7.8.16 Fuel supply

- a. Fuel pump and fuel pressure regulator must remain as homologated.
- b. The fuel pressure must be as homologated.
- c. Fuel lines from the fuel tank to the delivery pipe assembly (excluded) may be replaced.
- d. Quick connectors or dry break connectors may be used.
- e. Fuel vent lines may be replaced.
- f. Fuel filters may be added.

# 2.7.8.17 Exhaust system

a. Exhaust pipes and silencers may be modified or changed. Catalytic converters must be removed.

- b. The number of the final exhaust silencer(s) must remain as homologated. The silencer(s) must be on the same side(s) of the homologated model.
- c. For safety reasons, the exposed edges of the exhausts pipe(s) outlet must be rounded to avoid any sharp edges.
- d. Wrapping of exhaust systems is not allowed except in the area of the rider's foot or an area in contact with the fairing for protection from heat.
- e. The noise limit for Superstock is 107 dB/A (with a 3 dB/A tolerance after the race only)

#### 2.7.9 Electrics and electronics

# 2.7.9.1 Ignition / Engine Control System (ECU)

- a. The engine control system (ECU) must be an ECU (Kit or OEM) applicable to the specific homologated model. The ECU may have its software changed, but the ECU may not be physically modified.
- b. The system may have FIM/DWO/MotoAmerica approved external ignition and/or injection module/s added.
- c. The total combined retail price (software and tuning tools included) on sale to the general public cannot be higher than €2500 (tax excluded).
- d. Central unit (ECU) may be relocated.
- e. Optional equipment sold by the motorcycle Manufacturer for the homologated model is considered not homologated with the bike and must follow the requirements for approved electronics/data loggers.
- f. During an event the Technical Director has the right to ask a team to substitute their ECU or external module with the sample received from the Manufacturer. The change has to be done before Sunday warm up.
- g. No extra sensors may be added for control strategies except shift rod sensor and wheel speed sensors. Wheel speed sensors must be included in the Kit ECU and Harness package if required.
- h. The addition of an infrared (IR) or GPS based lap timing system is allowed.
- i. Data logging is not allowed. Lap timers using any data recording with the exception of lap time are not allowed.
- j. Telemetry is not allowed.
- k. No remote or wireless connection to the bike for any data exchange or setting is allowed whilst the engine is running or the bike is moving.
- I. Harness:

- 1. The main wiring harness may be replaced by the kit wire harness as supplied for the Kit ECU model, produced and/or approved by the manufacturer of the motorcycle and by FIM/DWO
- 2. The key/ignition lock may be relocated, replaced or removed.
- 3. Cutting of the original main wiring harness is allowed.
- m. To be approved, samples of the ECU kits, kit harnesses and external modules with their tuning tools must be sent by the Manufacturers to the FIM Technical Director, with technical data and selling price.
- n. For the ignition and or injection module, or quick shifter to be approved, samples must be sent by the manufacturer of the device to the MotoAmerica Technical Director with technical data and selling price.
- o. The original speedometer and tachometer may be altered or replaced.
- p. Spark plugs may be replaced.
- q. Battery is free.

#### 2.7.9.2 Generator, alternator, electric starter

- a. No modifications are allowed.
- b. The electric starter must operate normally and always be able to start the engine during the event.

#### 2.7.10 Main Frame

During the entire duration of the event, each rider can only use one (1) complete motorcycle, as presented for Technical Control, with the frame clearly identified with a seal. In case the frame needs to be replaced, the rider or the team can request the use of a spare frame to the MotoAmerica Technical Director.

The pre-assembled spare frame must be presented to the MotoAmerica Technical Director to receive the permission to rebuild the motorcycle. The pre-assembly of the frame shall be strictly limited to:

- Main frame
- Bearings (steering pip, swing arm, etc.)
- Swing arm
- Rear suspension linkage and shock absorber
- Upper and lower triple clamps
- Wiring harness

The spare frame will not be allowed in the pit box before the rider or the team has received authorization from the MotoAmerica Technical Director. The motorcycle, once rebuilt, prior to use must be inspected by the technical stewards for safety checks and a new seal will be placed on the motorcycle frame.

#### EXPLANATION OF THE PROCEDURES

Only one (1) complete motorcycle may be presented for the preliminary technical checks and it will be the only motorcycle allowed on the track and in the pit box during the practices, qualifying, warm up and race.

The frame of this motorcycle will be officially sealed by the MotoAmerica Technical Director or by his appointed staff. The seal will bear a serial number, which will be recorded. Any attempt made to remove the seal will damage it irreparably.

At any time during the event, the technical stewards, under the direction of the MotoAmerica Technical Director, may check the seal and verify that it conforms to the motorcycle and rider it was assigned to. For cross reference, every frame must have a unique number punched on it, preferably on the steering-head.

If the motorcycle is damaged in a crash or in any other incident, it is allowed to us the pre-assembled spare frame to rebuild the motorcycle.

The spare frame may be pre-assembled with the following items: main frame assembly, swing-arm, rear suspension linkage, shockabsorber, steering head bearings, upper and lower triple clamps and wiring harness.

When a team decides that a crashed or damaged motorcycle requires a change of frame, it must inform the MotoAmerica Technical Director. Only at this point may the pre-assembled spare frame be brought into the pit box.

Parts may be transferred from the damaged motorcycle for the assembly of the replacement motorcycle.

Once the assembly of the replacement motorcycle is completed, it will then undergo technical and safety checks and it will be officially sealed. The seal on the damaged motorcycle will be destroyed by the technical staff and the chassis of this motorcycle must not be used for the remainder of the event. The new serial number will be recorded by the MotoAmerica Technical Director.

The replacement motorcycle may be used on the track only after the end of the practice and qualifying sessions or race in which the damage occurred. The damaged motorcycle must be removed from the pit box as soon as possible and put in storage outside the pit box. After the pre-assembled spare part frame has been used, should it become necessary to replace the frame again because of a further crash or damage, the assembly work must be done using a bare frame with no components attached. The MotoAmerica Technical Director must inspect the bare frame and give their approval before work can start.

Any actions contrary to these procedures will result in a penalty as described in the Sporting Regulations.

### 2.7.10.1 Frame body and rear sub frame

- a. The frame must remain as originally produced by the manufacturer for the homologated motorcycle.
- b. Holes may be drilled on the frame only to fix approved components (i.e. fairing brackets, steering damper mount, sensors).
- c. The sides of the frame-body may be covered by a protective part made of a composite material. These protectors must fit the form of the frame.
- d. Nothing else may be added or removed from the frame body.
- e. All motorcycles must display a vehicle identification number punched on the frame body (chassis number).
- f. Engine mounting brackets or plates must remain as originally produced by the manufacturer for the homologated motorcycle.
- g. Front sub frame / fairing mount may be changed or altered.
- h. Rear sub frame must remain as homologated but additional seat brackets may be added.
- i. Additional seat brackets may be added, non-stressed protruding brackets may be removed if they do not affect the safety of the construction or assembly. Bolt-on accessories to the rear sub-frame may be removed.
- j. The paint scheme is not restricted but polishing the frame body or sub frame is not allowed.

# 2.7.10.2 Front Forks

- a. Forks (stanchions, stem, wheel spindle, upper and lower crown, etc.) must remain as originally produced by the manufacturer for the homologated motorcycle.
- b. The upper and lower fork clamps (triple clamp, fork bridges) must remain as originally produced by the manufacturer on the homologated motorcycle.
- c. Steering stem pivot position must remain in the homologated position (as supplied on the production bike). If the standard bike has inserts then the orientation/position of the original insert may be changed but the insert cannot be replaced or modified.

- d. A steering damper may be added or replaced with an after-market damper.
- e. The steering damper cannot act as a steering lock limiting device.
- f. Fork caps on the mechanical forks may only be modified or replaced to allow external adjustment. (This does not include the mechanical fork leg that is part of the homologated electronic fork set).
- g. Dust seals may be modified, changed or removed if the fork remains totally oil-sealed.
- **h.** Mechanical forks: Original internal parts of the homologated forks may be modified or changed. After market damper kits or valves may be installed. The original surface finish of the fork tubes (stanchions, fork pipes) **may be changed. Additional surface treatments are allowed.**
- i. Electronic forks: No aftermarket or prototype electronically-controlled suspension parts may be used. Electronic suspension may be used if such suspension is already present on the production model of the homologated motorcycle, and it must remain completely standard (all mechanical and electronic parts must remain as homologated) with the exception of shims and springs. The original suspension system must work safely in the event of an electronic failure. The electronic front suspension may be replaced with a mechanical system from a similar homologated model from the same manufacturer.

# 2.7.10.3 Rear fork (Swing arm)

- a. The rear fork must remain as originally produced by the manufacturer for the homologated motorcycle.
- b. A chain guard must be fitted in such a way to reduce the possibility that any part of the riders' body may become trapped between the lower chain run and the rear wheel sprocket.
- c. Rear fork pivot bolt must remain as originally produced by the manufacturer for the homologated motorcycle.
- d. Rear pivot position must remain in the homologated position (as supplied on the production bike). If the standard bike has inserts then the orientation/position of the original insert may be changed but the insert cannot be replaced or modified.
- e. Rear wheel stand brackets may be added to the rear fork by welding or by bolts. Brackets must have rounded edges (with a large radius). Fastening screws must be recessed. An anchorage system or point(s) to keep the original rear brake caliper in place may be added to the rear swing-arm.

# 2.7.10.4 Rear suspension unit

a. Rear suspension unit (shock absorber) may be modified or replaced, but the original attachments to the frame and rear fork (swing arm) must be as homologated.

- b. All the rear suspension linkage parts must remain as originally produced by the manufacturer for the homologated motorcycle.
- c. **Mechanical suspension:** Rear suspension unit and spring may be changed.
- d. **Electronic suspension:** No aftermarket or prototype electronicallycontrolled suspension parts may be used. Electronic suspension may be used if such suspension is already present on the production model of the homologated motorcycle, and it must remain completely standard (all mechanical and electronic parts must remain as homologated) with the exception of shims and springs). The original suspension system must work properly and safely in the event of an electronic failure. The electronic shock absorber can be replaced with a mechanical one.

# 2.7.10.5 Wheels

- a. Wheels must remain as originally produced by the manufacturer for the homologated motorcycle.
- b. A non-slip coating / treatment may be applied to the bead area of the rim.
- c. If the original design includes a cushion drive for the rear wheel, it must remain as originally produced for the homologated motorcycle.
- d. Wheel axles must remain as homologated, wheel spacers may be modified or replaced.
- e. Wheel balance weights may be discarded, changed or added.
- f. Any inflation valves may be used.

#### 2.7.10.6 Brakes

- a. Brake discs may be replaced by aftermarket discs which comply with following requirements:
  - 1. Brake discs and carrier must retain the same material as the homologated disc and carrier.
  - 2. The outside and inner diameters of the brake disc must not be larger than the ones on the homologated disc.
  - 3. The thickness of the brake disc may be increased but the disc must fit into the homologated brake caliper without any modification. The number of floaters is free.
  - 4. The fixing of the carrier on the wheel must remain the same as on the homologated disc.
- b. The front and rear brake caliper (mount, carrier, hanger) must remain as originally produced by the manufacturer for the homologated motorcycle.

- c. In order to reduce the transfer of heat to the hydraulic fluid it is permitted to add metallic shims to the calipers, between the pads and the calipers, and/or to replace light alloy pistons with steel pistons made by the same manufacturer of the caliper.
- d. The rear brake caliper bracket may be mounted fixed on the swingarm, but the bracket must maintain the same mounting (fixing) points for the caliper as used on the homologated motorcycle.
- e. The swing-arm may be modified for this reason to aid the location of the rear brake caliper bracket, by welding, drilling or by using a helicoil.
- f. The front and rear master cylinder must remain as originally produced by the manufacturer for the homologated motorcycle. Front and rear brake fluid reservoirs may be changed with aftermarket products.
- g. Front and rear hydraulic brake lines may be changed.
- h. The split of the front brake lines for both front brake calipers must be made above the lower fork bridge (lower triple clamp).
- i. "Quick" (or "dry-brake") connectors in the brake lines are allowed.
- j. Front and rear brake pads may be changed. Brake pad locking pins may be modified for quick change type.
- k. Additional air scoops or ducts are not allowed.
- The Antilock Brake System (ABS) may be used only if installed in the homologated model for road use. However, it must be completely standard (any mechanical or electronic part must remain as homologated, brake discs and master cylinder levers excluded), and only the software of the ABS may be modified.
- m. The Antilock Brake system (ABS) can be disconnected and its ECU can be dismantled. The ABS rotor wheel can be deleted, modified or replaced.
- n. Motorcycles must be equipped with brake lever protection, intended to protect the handlebar brake lever from being accidentally activated in case of collision with another motorcycle. Composite guards are not permitted. FIM approved guards will be permitted without regard to the material.
- o. The Technical Director has the right to refuse any guard not satisfying this safety purpose.

# 2.7.10.7 Handlebars and hand controls

- a. Handlebars may be replaced (except for the brake master cylinder).
- b. Handlebars and hand controls may be relocated.
- c. Throttle controls must be self-closing when not held by the hand.

- d. Throttle assembly and associated cables may be modified or replaced but the connection to the throttle body and to the throttle controls must remain as on the homologated motorcycle.
- e. Clutch and brake lever may be replaced with an after-market model. An adjuster to the brake lever is allowed.
- f. Switches may be changed but the electric starter switch and engine stop switch must be located on the handlebars.
- g. Motorcycles must be equipped with a functional ignition kill switch or button mounted on the right hand handlebar (within reach of the hand while on the hand grips) that is capable of stopping a running engine. The button or switch must be RED.

# 2.7.10.8 Foot rest / Foot controls

- a. Foot rest/foot controls may be relocated but brackets must be mounted to the frame in the original mounting points.
- b. Foot rests may be rigidly mounted or a folding type which must incorporate a device to return them to the normal position.
- c. The end of the foot rest must have at least an 8 mm solid spherical radius.
- d. Non folding footrests must have an end (plug) which is permanently fixed, made of aluminum, plastic, Teflon® or an equivalent type material (minimum radius 8mm). The plug surface must be designed to reach the widest possible area. The MotoAmerica Technical Director has the right to refuse any plug not satisfying this safety aim.

# 2.7.10.9 Fuel tank

- a. Fuel tank must remain as originally produced by the manufacturer for the homologated motorcycle.
- b. All fuel tanks must be completely filled with fire retardant material (i.e. fuel tank foam)
- c. Fuel tanks with tank breather pipes must be fitted with non-return valves that discharge into a catch tank with a minimum volume of 250cc made of a suitable material.
- d. Fuel caps may be changed. Fuel caps when closed must be leak proof. Additionally, they must be securely locked to prevent accidental opening at any time.
- e. The sides of the fuel tank may be protected with a cover made of a composite material. These covers must fit the shape of the fuel tank.

# 2.7.10.10 Fairing / Bodywork

- a. Fairing and bodywork may be replaced with exact cosmetic duplicates of the original parts, but must appear to be as originally produced by the manufacturer for the homologated motorcycle, with slight differences due to the racing use (different pieces mix, fixing points, fairing bottom, etc.). The material may be changed. The use of carbon fiber or carbon composite materials is not allowed. Specific reinforcements in Kevlar® or carbon are allowed locally around holes and stressed areas.
- b. Overall size and dimensions must be the same as the original part.
- c. Wind screen may be replaced with an aftermarket product. The height of the windscreen is free **and must be** within a tolerance of +/- 15 mm referred to the vertical distance from/to the upper fork bridge. The screen must conform to the same profile from the front as the original no double bubble or wide types. From a top view the length of the windscreen may be shortened by 25mm to allow clearance for the rider. The edge of the screen must have no sharp edges
- d. Motorcycles that are not originally equipped with streamlining are not allowed to add streamlining in any form, with the exception of a lower fairing device, as described in point (g). This device cannot exceed above a line drawn horizontally from wheel axle to wheel axle and must follow the specifications described at point (g).
- e. The original combination instrument/fairing brackets may be replaced, but the use of titanium and carbon (or similar composite materials) is forbidden. All other fairing brackets may be altered or replaced
- f. The original air ducts running between the fairing and the air box may be altered or replaced. Carbon fiber composites and other exotic materials are forbidden. Particle grills or "wire-meshes" originally installed in the openings for the air ducts may be removed.
- g. The lower fairing must to be constructed to hold, in case of an engine breakdown minimum 6 liters. The lower edge of all the openings in the fairing must be positioned at least 70 mm above the bottom of the fairing.
- h. The upper edge of the rear transverse wall of the lower fairing must be at least 70 mm above the bottom. The angle between this wall and the floor must be  $\leq 90^{\circ}$ .
- i. Original openings for cooling in the lateral fairing/bodywork sections may be partially closed only to accommodate sponsors' logos/lettering. Such modification shall be made using wire mesh or perforated plate. The material is free but the distance between all opening centers, circle centers and their diameters must be constant. Holes or perforations must have an open area ratio > 60%.
- j. The lower fairing must incorporate a single opening of Ø 25 mm diameter in the front lower area. This hole must remain sealed in dry conditions and must be only opened in wet race conditions as declared by the Race Director.

- k. Front mudguards may be replaced with a cosmetic duplicate of the original parts and may be spaced upward for increased tire clearance.
- I. Rear mudguard fixed on the swing arm may be modified, changed or removed
- m. Motorcycles may be equipped with inner ducts to improve the air stream towards the radiator but the appearance of the front, the rear and the profile of the motorcycle must not be changed.

# 2.7.10.11 Seat

- a. Seat, seat base and associated bodywork may be replaced with parts of similar appearance as originally produced by the manufacturer for the homologated motorcycle. The appearance from front, rear and profile must conform to the homologated shape
- b. The top portion of the rear bodywork around the seat may be modified to a solo seat.
- c. The homologated seat locking system (with plates, pins, rubber pads etc.) may be removed.

# 2.7.10.12 Rear Safety Light

All motorcycles must have a functioning red light mounted at the rear of the machine, this light must be switched on any time the motorcycle is on the track or being ridden in the pit-lane **and the session is declared WET**. All lights must comply with the following:

- a. Lighting direction must be parallel to the machine center line (motorcycle running direction), and be clearly visible from the rear at least 15 degrees to both left and right sides of the machine center line.
- b. The rear light must be mounted near the end of the seat/rear bodywork and approximately on the machine center line, in a position approved by the Technical Director. In case of dispute over the mounting position or visibility, the decision of the Technical Director will be final.
- c. Power output/luminosity equivalent to approximately: 10 15 (incandescent), 0.6 1.8 W (LED).
- d. The output must be continuous no flashing safety light whilst on track, flashing is allowed in the pit lane when pit limiter is active.
- e. Safety light power supply may be separated from the motorcycle.
- f. The Technical Director has the right to refuse any light system not satisfying this safety purpose.

#### 2.7.10.13 Fasteners

- a. Standard fasteners may be replaced with fasteners of any material and design but titanium fasteners cannot be used. The strength and design must be equal to or exceed the strength of the standard fastener.
- b. Fasteners may be drilled for safety wire, but intentional weightreduction modifications are not allowed.
- c. **Thread repairs may be made** using inserts of different material such as helicoils and timeserts.
- d. Fairing / bodywork fasteners may be replaced with the quick disconnect type.
- e. Aluminum fasteners may only be used in non-structural locations.

# 2.7.11 The following items MAY be altered or replaced from those fitted to the homologated motorcycle

- a. Any type of lubrication, brake or suspension fluid may be used.
- b. Gaskets and gasket materials.
- c. Instruments, instrument bracket(s) and associated cables.
- d. Painted external surface finishes and decals.
- e. Material for brackets connecting non original parts (fairing, exhaust, instruments, etc.) to the frame (or engine) cannot be made from titanium or fiber reinforced composites.
- f. Protective covers for the frame, chain, footrests, etc. may be made in other materials like fiber composite material if these parts do not replace original parts mounted on the homologated model.

#### 2.7.12 The following items MAY BE Removed

- a. Emission control items (anti-pollution) in or around the air box and engine (O2 sensors, air injection devices).
- b. Tachometer.
- c. Speedometer.
- d. Chain guard as long as it is not incorporated in the rear fender.
- e. Bolt-on accessories on a rear sub frame.

#### 2.7.13 The following items MUST BE Removed

- a. Headlamp, rear lamp and turn signal indicators (when not incorporated in the fairing). Openings must be covered by suitable materials.
- b. Rear-view mirrors.
- c. Horn.

- d. License plate bracket.
- e. Toolkit.
- f. Helmet hooks and luggage carrier hooks.
- g. Passenger foot rests.
- h. Passenger grab rails.
- i. Safety bars, center and side stands must be removed (fixed brackets must remain).

# 2.7.14 The following items MUST BE Altered

- a. Motorcycles must be equipped with a functional ignition kill switch or button mounted on the right hand handlebar (within reach of the hand while on the hand grips) that is capable of stopping a running engine, the button or switch must be red.
- b. All drain plugs must be wired. External oil filter(s) screws and bolts that enter an oil cavity must be safety wired (i.e. on crankcases).
- c. All motorcycles must have a closed breather system. The oil breather line must be connected and discharge in the airbox.
- d. Where breather or overflow pipes are fitted they must discharge via existing outlets. The original closed system must be retained: no direct atmospheric emission is permitted.
- e. Motorcycles must be equipped with a red light on the instrument panel that will illuminate in the event of oil pressure drop (Yamaha R6 exempted).

# 2.8 KTM RC CUP TECHNICAL SPECIFICATIONS

The following rules are intended to permit limited changes to the homologated motorcycle in the interests of safety and improved competition between various motorcycle concepts.

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

# If a change to a part or system is not specifically allowed in any of the following articles, then it is forbidden

# KTM RC Cup motorcycles will be checked randomly for conformity of the rules.

Only KTM RC Cup bikes meeting the specifications of the KTM RC Cup powered by KTM and delivered officially for the series by KTM shall be allowed

The appearance from the front, rear and the profile of KTM RC Cup motorcycles must (except when otherwise stated) conform to the homologated shape (as originally produced by the manufacturer).

# 2.8.1 Motorcycle specifications

All parts and systems not specifically mentioned in the following articles must remain as originally produced by KTM for the KTM RC Cup specific race model.

# 2.8.2 Engine configurations and displacement capacities

The following engine configurations comprise the KTM RC Cup class:

373.2 cc 4-stroke 1 cylinder

The displacement capacity, bore and stroke (new), must remain at the homologated size.

#### 2.8.3 Minimum weight

KTM RC 390 141kg (310.8lb)

At any time of the event, the weight of the whole motorcycle (including the tank and its contents) must not be lower than the minimum weight.

There is no tolerance on the minimum weight of the motorcycle.

During the final technical inspection at the end of the race, the selected motorcycles will be weighed in the condition they finished the race, and the established weight limit must be met in this condition. Nothing may be added to the motorcycle. This includes all fluids.

During the practice and qualifying sessions, riders may be asked to submit their motorcycle to a weight control. In all cases the rider must comply with this request.

# 2.8.4 Number plate colors

The background colors and figures (numbers) for KTM RC Cup are **Yellow Background (pantone yellow) with Black Numbers.** 

The sizes for all the front numbers are:	Minimum height: Minimum width: Minimum stroke: Minimum space	100mm 55mm 15mm
	between numbers:	10mm
The size for all the side numbers is:	Minimum height: Minimum width: Minimum stroke: Minimum space between numbers:	100mm 55mm 15mm 10mm

The allocated number (& plate) for the rider must be affixed on the motorcycle as follows:

- a. Once on the front, either in the center of the fairing or slightly off to one side. The number must be centered on the yellow background with no advertising within 25mm in all directions.
- b. Once, on each side of the motorcycle. The preferred location for the numbers on each side of the motorcycle is on the lower rear portion of the main fairing near the bottom. The number must be centered on the red background. Any change to this position must be preapproved a minimum of 2 weeks before the first race by the MotoAmerica Technical Director.
- c. The numbers must use the fonts as detailed after Art. 2. Any numbers not using these fonts must have the design of the numbers and the layout pre-approved by the MotoAmerica Technical Director a minimum of 2 weeks before the first race. All digits must be of standard form.
- d. Any outlines must be of a contrasting color and the maximum width of the outline is 3mm. The background color must be clearly visible around all edges of the number (including outline). Reflective or mirror type numbers are not permitted.
- e. Numbers cannot overlap.

In case of a dispute concerning the legibility of numbers, the decision of the MotoAmerica Technical Director will be final.

# 2.8.5 Fuel

# Specified in Article: 2.9

# 2.8.6 Tires

- a. You must use the KTM RC Cup series approved Dunlop tires only.
  - 1. Dry Tires DOT All Tracks

- Front 110/70ZR17 ALPHA 13
- Rear 150/60ZR17 ALPHA 13
- 2. Rain Tires
  - Rain Front 110/70R17 KR189
  - Rain Rear 140/65R17 KR389
- b. The maximum number of tires, of any type, available to each rider during the event will be **specified in Article: 2.3.7**
- c. For the KTM RC Cup race only, wet tires will not need to be marked with a tire sticker. They will not be considered in the total number of tires available for use, However normal allocation limits still apply.
- d. Every tire used during the event must be marked with an adhesive sticker with a number allocated by the MotoAmerica Technical Director. The sticker will be a different color front and rear.
- e. The tire stickers will be delivered to the teams in a sealed envelope, on the day before the first practice after which the teams will be responsible for their use.
- f. Officials will check that all the motorcycles in the pit lane are fitted with tires carrying the sticker.
- g. Stickers must be mounted to the left sidewall.
- h. The use of motorcycles without the official stickers will be immediately reported to the Race Direction whom will take appropriate action.
- i. Any modification or treatment (cutting, grooving) is forbidden.
- j. At the beginning of the event, the Official Supplier may be requested by the MotoAmerica Technical Director to deliver to him four (4) samples of each type of tire to be used at the event.
- k. The allocation of individual tires will be made on a random basis, with no involvement of any representative from the tire supplier, teams or riders. Those tires will be individually identified and may not be exchanged between riders, including between team mates, and may not be exchanged by the tire supplier after the allocation, except with the permission of the Race Direction.
- I. In exceptional cases, should the sticker be damaged or applied in the wrong way, up to 2 extra stickers may be provided at the sole discretion of the MotoAmerica Technical Director. However, the damaged sticker must be returned to the MotoAmerica Technical Director and/or the tire it was applied to, must be absolutely intact.

# 2.8.7 Engine

# 2.8.7.1 Fuel injection system

Fuel injection systems refer to throttle bodies, fuel injectors, variable length intake tract devices, fuel pump and fuel pressure regulator.

- a. The fuel injection system must maintain the configuration that KTM delivers the machines with and cannot be altered or changed.
- b. The fuel injectors must be stock and unaltered from the original specification and manufacture.
- c. Bell mouths must remain as originally produced by the manufacturer for the homologated motorcycle.
- d. Butterfly valves cannot be changed or modified.
- e. Air and air/fuel mixture must exclusively enter the combustion chamber through the throttle body butterflies.

# 2.8.7.2 Cylinder Head

- a. No modifications are allowed.
- b. The cylinder head and cover must have the official tech seal intact.

# 2.8.7.3 Camshaft

No modifications are allowed.

#### 2.8.7.4 Cam sprockets or gears

No modifications are allowed.

# 2.8.7.5 Cylinders

No modifications are allowed.

# 2.8.7.6 Pistons

No modifications are allowed (including polishing and lightening).

# 2.8.7.7 Piston rings

No modifications are allowed.

# 2.8.7.8 Piston pins and clips

No modifications are allowed.

# 2.8.7.9 Connecting rods

No modifications are allowed (including polishing and lightening).

# 2.8.7.10 Crankshaft

No modifications are allowed (including polishing and lightening).

# 2.8.7.11 Crankcase / Gearbox housing

No modifications are allowed.

## 2.8.7.11.1 Lateral covers and protection

- a. Lateral (side) covers may be altered, modified or replaced. If altered or modified, the cover must have at least the same resistance to impact as the original one. If replaced, the cover must be made in material of same or higher specific weight and the total weight of the cover must not be less than the original one.
- b. All lateral covers/engine cases containing oil and which could be in contact with the ground during a crash, must be either replaced by a 'heavier' engine cover or protected by a second cover made from metal such as aluminum alloy, stainless steel, steel or titanium, or an approved cover.
- c. Any secondary covers must cover a minimum of 1/3 of the original cover. It must have no sharp edges to damage the track surface. These covers must be fixed properly and securely with a minimum of three (3) case cover screws that also mount the original covers/engine cases to the crankcases.
- d. Plates or crash bars made from aluminum or steel also are permitted in addition to these covers. All of these devices must be designed to be resistant against sudden shocks, abrasions and crash damage.
- e. No oil containing engine case may be secured with aluminum bolts.
- f. FIM approved covers will be permitted without regard of the material or dimensions.
- g. These covers must be fixed properly and securely with case cover screws that also mount the original covers/engine cases to the crankcases.
- h. The Technical Director has the right to refuse any cover not satisfying this safety purpose.

## 2.8.7.12 Transmission / Gearbox

- a. No modifications are allowed to the transmission or gearbox.
- b. The sprocket cover may be modified or eliminated.
- c. Final drive sprockets may be changed but must remain a 520 O-ring style chain.
- d. Sprockets can be made of aluminum or steel.

## 2.8.7.13 Clutch

- a. The homologated non-back torque limiting or back torque limiting clutch may be used.
- b. 2015 KTM RC Cup motorcycles equipped with a non-back torque

limiting clutch may be updated to the 2016 KTM RC Cup Back torque limiting clutch. The following part numbers must be used for the conversion:

Qty	Part Number	Description
1	90232101044	Clutch Cage
1	90232102000	Inner Clutch Hub
1	90232111010	Clutch Kit 390
1	90232103000	Pressure Plate
3	90232105000	Clutch Springs
3	90232101101	HH Screw M6x35
1	J625069020	Ball Bearing 6902
1	90232006000	Stopper Plate
3	90232004000	Spring Seat

#### c. No other modifications are allowed

d. Replacement clutch parts (ie friction plates, steel plates, springs, etc.) must remain as homologated.

#### 2.8.7.14 Oil pumps and oil lines

No pump or oil line modifications are allowed.

#### 2.8.7.15 Radiator, cooling system and oil cooler

- a. The only liquid engine coolants permitted will be water
- b. Protective meshes may be added in front of the oil and/or water radiator(s).
- c. The cooling system hoses and catch tanks may be changed.
- d. Radiator cap is free.

#### 2.8.7.16 Air box

- a. The air box must remain as originally produced by the manufacturer on the homologated motorcycle.
- b. The air filter element may be replaced but must be included on the approved air filter list.
- c. The air box drains must be sealed.
- d. All motorcycles must have a closed breather system. All oil breather lines must be connected and discharge in the airbox.

## 2.8.7.17 Fuel supply

- a. Fuel pump and fuel pressure regulator must remain as homologated.
- b. The fuel pressure must be as homologated.

- c. Fuel lines from the fuel tank to the delivery pipe assembly (excluded) may be replaced.
- d. Fuel vent lines may be replaced.

## 2.8.7.18 Exhaust system

- a. The MotoAmerica approved KTM RC Cup Akrapovic exhaust system is the only system that can be used.
- b. Wrapping of exhaust systems is not allowed except in the area of the rider's foot or an area in contact with the fairing for protection from heat.

#### c. The silencer noise insert may be removed.

#### 2.8.7.19 Lubrication system

The MotoAmerica approved KTM RC Cup **Motorex** "**POWER SYNT 4T Fully Synthetic 10w/50**" engine oil must be used.

#### 2.8.8 Electrics and electronics

#### 2.8.8.1 Ignition / Engine Control System (ECU)

- a. The engine control system (ECU) must be the original system as homologated.
- b. Optional equipment sold by the motorcycle Manufacturer for the homologated model is considered not homologated with the bike
- c. During an event the Technical Director has the right to ask a team to substitute their ECU with the sample received from the Manufacturer. The change has to be done before Sunday warm up.
- d. No extra sensors may be added for control strategies.
- e. The addition of an infrared (IR) or GPS based lap timing system is allowed.
- f. Data logging is not allowed. Lap timers using any data recording with the exception of lap time are not allowed.
- g. Telemetry is not allowed.
- h. No remote or wireless connection to the bike for any data exchange or setting is allowed whilst the engine is running or the bike is moving.
- i. Harness:
  - 1. No modifications are allowed.
  - 2. An on/off circuit may be added for the rain light
- j. Spark plugs may be replaced.
- k. Battery is free.

## 2.8.8.2 Generator, alternator, electric starter

- a. No modifications are allowed.
- b. The electric starter must operate normally and always be able to start the engine during the event.

## 2.8.9 Main frame and spare frame

During the entire duration of the event, each rider can only use one (1) complete motorcycle, as presented for Technical Control, with the frame clearly identified with a seal. In case the frame will need to be replaced the rider or the team can request the use of a spare frame to the MotoAmerica Technical Director. The spare frame must be inspected before assembly can begin.

The spare frame will not be allowed in the pit box before the rider or the team has received authorization from the MotoAmerica Technical Director.

The rebuilt motorcycle must be inspected before its use by the technical number stewards for safety checks and a new seal will be placed on the motorcycle frame.

In extraordinary circumstances the technical director may give permission for the KTM supplied spare machine to be used if it is felt the damaged machined cannot be repaired safely and in the available time.

## EXPLANATION OF THE PROCEDURES

Only one (1) complete motorcycle may be presented for the preliminary technical checks and it will be the only motorcycle allowed on the track and in the pit box during the practices, qualifying, warm up and race.

The frame of this motorcycle will be officially sealed by the MotoAmerica Technical Director or by his appointed staff. The seal will bear a serial number, which will be recorded. Any attempt made to remove the seal will damage it irreparably.

At any time during the event the technical stewards, under the direction of the MotoAmerica Technical Director, may check the seal and verify that it conforms to the motorcycle and rider it was assigned to. For cross reference, every frame must have a unique number punched on it, preferably on the steering-head.

If the motorcycle is damaged in a crash or in any other incident, it is allowed to use the pre-assembled spare frame to rebuild the motorcycle.

The spare frame may be pre-assembled with the following items: main frame assembly, swing-arm, rear suspension linkage, shock-absorber, steering head bearings, upper and lower triple clamps and wiring harness.

When a team decides that a crashed or damaged motorcycle requires a change of frame, it must inform the MotoAmerica Technical Director. Only at this point may the spare frame be brought into the pit box.

Parts may be transferred from the damaged motorcycle for the assembly of the replacement motorcycle.

Once the assembly of the replacement motorcycle is completed, it will then undergo technical and safety checks and it will be officially sealed. The seal on the damaged motorcycle will be destroyed by the technical staff and the chassis of this motorcycle must not be used for the remainder of the event. The new serial number will be recorded by the MotoAmerica Technical Director.

The replacement motorcycle may be used on the track only after the end of the practice and qualifying sessions or race in which the damage occurred. The damaged motorcycle must be removed from the pit box as soon as possible and put in storage outside the pit box.

After the spare part frame has been used, should it become necessary to replace the frame again because of a further crash or damage, the assembly work must be done using a bare frame with no components attached. The MotoAmerica Technical Director must inspect the bare frame and give his approval before work can start.

Any actions contrary to these procedures will result in a penalty as described in the Sporting Regulations.

## 2.8.9.1 Frame body and rear sub frame

- a. The frame must remain as originally produced by the manufacturer for the homologated motorcycle.
- b. The sides of the frame-body may be covered by a protective part made of a composite material. These protectors must fit the form of the frame.
- c. Nothing else may be added or removed from the frame body.
- d. All motorcycles must display a vehicle identification number punched on the frame body (chassis number).
- e. Engine mounting brackets or plates must remain as originally produced by the manufacturer for the homologated motorcycle.
- f. The frame paint scheme is restricted to the original KTM orange.

## 2.8.9.2 Front Forks

- a. Forks (stanchions, stem, wheel spindle, upper and lower crown, etc.) must remain as originally produced by the manufacturer for the homologated motorcycle.
- b. The upper and lower fork clamps (triple clamp, fork bridges) must remain as originally produced by the manufacturer on the homologated motorcycle.
- c. Steering stem pivot position must remain in the homologated position (as supplied on the production bike).

- d. Original internal parts of the homologated forks may not be modified or changed.
- e. Springs may be changed with the following:
  - 7040-9005 Fork spring 290.220.00.070W
  - 7040-9006 Fork spring 290.220.00.075W (mounted stock in the RC390 cup bike)
  - 7040-9007 Fork spring 290.220.00.080W
  - 9701-0029 Fork spring 290.220.00.085W
  - 9701-0030 Fork spring 290.220.00.090W
- f. Oil weight/height may be changed.
- g. Additional surface treatments are not allowed.
- h. Modifications to the pistons, valve stacks, or oil passage ways is not allowed.

## 2.8.9.3 Rear fork (Swing arm)

- a. The rear fork must remain as originally produced by the manufacturer for the homologated motorcycle.
- b. A stock or aftermarket chain guard must be fitted in such a way to reduce the possibility that any part of the riders' body may become trapped between the lower chain run and the rear wheel sprocket.

## 2.8.9.4 Rear suspension unit

- a. All rear suspension linkage parts must remain as originally produced by the manufacturer for the homologated motorcycle.
- b. Rear suspension unit cannot be changed.
- c. Normal service components (seals, oil, bushings) may be changed or replaced.
- d. Springs may be changed with the following:
  - 7018-9001 Shock spring 72/130 (mounted stock in RC390 cup bike)
  - 7018-9002 Shock spring 74/130
  - 7018-9003 Shock spring 76/130
  - 7018-9004 Shock spring 78/130
  - 7018-9005 Shock spring 80/130
  - 7018-9006 Shock spring 82/130
  - 7018-9007 Shock spring 84/130
  - 7018-9008 Shock spring 86/130
- e. Modifications to the pistons, valve stacks, or oil passage ways is not allowed.

## 2.8.9.5 Wheels

- a. Wheels must remain as originally produced by the manufacturer for the homologated motorcycle.
- b. A non-slip coating / treatment may be applied to the bead area of the rim.
- c. The original KTM RC Cup orange paint must remain as homologated.
- d. Wheel **axles and bearings must remain** as homologated, wheel spacers may be modified or replaced.
- e. Wheel balance weights may be discarded, changed or added to.
- f. Any inflation valves may be used.

#### 2.8.9.6 Brakes

- a. Brake discs must remain as homologated.
- b. The front and rear brake caliper (mount, carrier, hanger) must remain as originally produced by the manufacturer for the homologated motorcycle.
- c. The front and rear master cylinder must remain as originally produced by the manufacturer for the homologated motorcycle.
- d. Front and rear brake fluid reservoirs may be changed with aftermarket products.
- e. Front and rear hydraulic brake lines may not be changed.
- f. Front and rear brake pads Can only be replaced with the homologated brake pads (part# 90813030000 or 90113030000)
- g. Additional air scoops or ducts are not allowed.
- h. Motorcycles must be equipped with brake lever protection, intended to protect the handlebar brake lever from being accidentally activated in case of collision with another motorcycle. Composite guards are not permitted with the exception of the original equipment as delivered by KTM. FIM approved guards will be permitted without regard to the material.
- i. The MotoAmerica Technical Director has the right to refuse any guard not satisfying this safety purpose.

## 2.8.9.7 Handlebars and hand controls

- a. Handlebars may be replaced with homologated or aftermarket parts.
- b. The original mounting location for the handle bars must be used.
- c. Throttle controls must be self-closing when not held by the hand.

- d. Throttle assembly and associated cables may not be modified or replaced.
- e. Clutch and brake lever may be replaced.
- f. Switches may be changed but the electric starter switch and engine stop switch must be located on the handlebars.
- g. Motorcycles must be equipped with a functional ignition kill switch or button mounted on the right hand handlebar (within reach of the hand while on the hand grips) that is capable of stopping a running engine. The button or switch must be RED.

#### 2.8.9.8 Foot rest / Foot controls

- a. Foot rest/foot controls may be replaced with homologated or aftermarket parts.
- b. Foot rest/foot controls may be relocated but brackets must be mounted to the frame in the original mounting points.
- c. Foot rests may be rigidly mounted or a folding type which must incorporate a device to return them to the normal position.
- d. The end of the foot rest must have at least an 8 mm solid spherical radius.
- e. Non folding footrests must have an end (plug) which is permanently fixed, made of aluminum, plastic, Teflon® or an equivalent type material (minimum radius 8mm). The plug surface must be designed to reach the widest possible area. The MotoAmerica Technical Director has the right to refuse any plug not satisfying this safety aim.

#### 2.8.9.9 Fuel tank

- a. Fuel tank must remain as originally produced by KTM for the homologated motorcycle.
- b. The sides of the fuel tank may be protected with a cover made of a composite material. These covers must fit the shape of the fuel tank.

## 2.8.9.10 Fairing / Bodywork

- a. Fairing, bodywork, and windscreen must be as originally fitted on KTM RC Cup model motorcycle.
- b. The rear fender upper cover may be removed or modified only for the purpose of accessing rear shock adjustments.

#### 2.8.9.11 Seat

Seat padding may be replaced with parts of similar appearance as originally produced by the manufacturer for the homologated motorcycle.

The appearance from the front, rear and profile must conform to the homologated shape.

## 2.8.9.12 Rear Safety Light

All motorcycles must have a functioning red light mounted at the rear of the machine, this light must be switched on any time the motorcycle is on the track or being ridden in the pit-lane and the session is declared WET. All lights may be the KTM light as originally supplied or comply with the following:

- a. Lighting direction must be parallel to the machine center line (motorcycle running direction), and be clearly visible from the rear at least 15 degrees to both left and right sides of the machine center line.
- b. The rear light must be mounted near the end of the seat/rear bodywork and approximately on the machine center line, in a position approved by the Technical Director. In case of dispute over the mounting position or visibility, the decision of the Technical Director will be final.
- c. Power output/luminosity equivalent to approximately: 10 15 (incandescent), 0.6 1.8 W (LED).
- d. The output must be continuous no flashing safety light whilst on track, flashing is allowed in the pit lane when pit limiter is active.
- e. Safety light power supply may be separated from the motorcycle.
- f. The Technical Director has the right to refuse any light system not satisfying this safety purpose.

## 2.8.9.13 Fasteners

- a. Standard fasteners may be replaced with fasteners of any material and design but titanium fasteners cannot be used. The strength and design must be equal to or exceed the strength of the standard fastener.
- b. Fasteners may be drilled for safety wire, but intentional weightreduction modifications are not allowed.
- c. Threads may be repaired using inserts of different material such as helicoils and timeserts.
- d. Fairing / bodywork fasteners may be replaced with the quick disconnect type.
- e. Aluminum fasteners may only be used in non-structural locations.

# 2.8.10 The following items MAY be altered or replaced from those fitted to the homologated motorcycle

- a. Any type of lubrication, brake or suspension fluid may be used with the exception of engine oil.
- b. Material for brackets connecting non original parts (fairing, exhaust, instruments, etc.) to the frame (or engine) cannot be made from titanium or fiber reinforced composites.
- c. Protective covers for the frame, chain, footrests, etc. may be made in other materials like fiber composite material if these parts do not replace original parts mounted on the homologated model
- d. The OEM chain guard may be modified for the purpose of making rear wheel changes more efficient as long as the chain guard still functions as intended.

## 2.9 FUEL, OIL AND COOLANTS

MotoAmerica reserves the right to nominate a fuel supplier until Jan 15<sup>th</sup> 2016.

#### 2.9.1 Air

Only ambient air may be mixed with the fuel as an oxidant.

#### 2.9.2 Primary Tests

The AMA/FIMNA may require tests of fuels to be administered before, or at the time of delivery to, an event at which such fuels are to be used.

Fuel companies supplying fuels to participating teams must submit ten litres (2 x 5 L) to the laboratory appointed by the AMA/FIMNA for analysis in accordance with the specification. Providing the fuel is within the specification, a certificate containing a test report number will be issued to the fuel company. The fuel company must provide a copy of the test report number to the appropriate rider/teams before they take part in a race. Contact for fuel analysis technicaldirector@motoamerica.com

## 2.9.3 Fuel Sampling and Testing

- a. The MotoAmerica Technical Director has the sole responsibility for the administration and supervision during the taking of fuel samples.
- b. The preferred fuel test method is gas chromatography or GC Fingerprint method.
- c. Gas chromatography (GC) is an analytical technique for separating compounds based primarily on their volatility and polarity. Gas chromatography provides both qualitative and quantitative information for individual compounds present in a sample. Gas chromatography is widely used for the analysis of fuels.
- d. The GC Fingerprint is a comparison between the given reference and the fuel drawn from the competitor. With the fingerprint method any changes in composition and concentration of the fuel against the reference is detected. The separation is done with a non-polar column suitable for fuels analysis. The detection of the components is done with a flame ionisation detector.
- e. If other test methods are required, fuel samples will be transported to the appointed laboratory by an official courier, using the appropriate containers.
- f. Riders selected for fuel controls will be directed with their motorcycles to the inspection area.
- g. Only new sample bottles will be used for the fuel samples.
- h. The fuel to be tested will be transferred into three bottles (3 small sample containers), marked A, B and C, and identified by reference to

the motorcycle from which the sample was taken. The bottles will be closed, sealed and labelled by the MotoAmerica Technical Director and/or the Fuel Analysts.

- i. The Fuel Sample Declaration form will be filled out immediately, containing all information as shown on the sample sheet, including the riders' name and race number, date and place of fuel sampling. A responsible team member will sign this declaration, after verifying that all the information is correct.
- j. Sample A and B will be given to the appointed laboratory staff, present at the event for analysis or be sent to the respective laboratory by the organiser if no trackside laboratory is available. Sample B will be kept by the laboratory staff as a retained sample in case of a dispute. All samples will be accompanied by a copy of the Fuel Sample Declaration form. Costs for the analyses of sample A and B will be paid by MotoAmerica.
- k. Sample C will be handed over to the AMA/FIMNA for safeguarding in case of protests and/or requirement of a counter-expertise by the AMA/FIMNA appointed laboratory, accompanied by a copy of the Fuel Sample Declaration form. Costs for the analyses of sample C will be paid by the team concerned.
- I. As soon as possible after receipt of the samples and completing the testing, the Fuel Analyst/AMA/FIMNA appointed laboratory will report the results of the fuel sample analyses directly to the MotoAmerica Technical Director.
- m. In the case of non-conformity, the MotoAmerica Technical Director must notify the results to MotoAmerica, the Race Direction and the rider/team representative concerned. Failure of the sample to correspond to the controlled fuel will result in the disqualification of the competitor. The result of the competitor's fuel sample analysis ("A" or "B" sample) more favourable to the competitor will be taken into account.
- n. Within 48 hours of the receipt of the notification of the results of the test of sample A and/or B, the team must notify MotoAmerica and the MotoAmerica Technical Director if a counter-expertise is required (or not required) for sample C.
- o. The Race Direction will take a decision at the Superbike, Supersport and Superstock 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 FIMNA Stewards appointed for the Superbike, Supersport and Superstock event at which the Race Direction decision is taken. This will take place after the C sample has been analysed.

#### 2.9.4 Fuel Storage

- a. Fuel must only be stored in metal, sealable containers in the competitor's pit.
- b. Firefighting equipment, protective devices and staff must conform to the requirements imposed by the local authorities and by-laws.
- c. The organiser must have fire extinguishers of a size and type approved by the local by-laws, available to each competitor in the pit area.

## 2.9.5 Coolants

The only liquid engine coolants permitted other than lubricating oil shall be water or water mixed with ethyl alcohol.



## AMA / FIM NORTH AMERICA ROAD RACING FUEL SAMPLE DECLARATION FORM

# FUEL SAMPLES TAKEN ON ..... / ..... FOR LABORATORY ANALYSIS

	Sample	Can "A"
RIDER N°:	Can Label N°	Can Seal N°
	Sample	Can "B"
SESSION:	Can Label N°	Can Seal N°
	Sample	Can "C"
RIDER NAME:	Can Label N°	Can Seal N°
MOTORCYCLE MAKE:		
TEAM:		
The above listed details refer to fuel samples taken race while in the Check Area for a period		
Sample "A" and "B" will go to the laboratory appointe "B" will be kept by the laboratory staff a		
Sample "C" will be safeguarded by the AMA/FIMNA i	n case of protests and/or count	er-expertise is required.
As a responsible member of the team named on this	s sheet, I,	
(print name):		
have controlled the serial numbers of can seals and serial numbers of can labels and hereby certify the accuracy of the listed information.		
Time:		
	(Signature)	
Position in team: (OWN	ER/MANAGER/MECHAN	IC)

## 2.10 PROTECTIVE CLOTHING AND HELMETS

- **2.10.1** Riders must wear a complete leather suit with additional leather padding or other protection on the principal contact points, knees, elbows, musters, hips etc.
- **2.10.2** Linings or undergarments must not be made of a synthetic material which might melt and cause damage to the riders' skin.
- **2.10.3** Riders must also wear leather gloves and boots, which with the leather suit provide complete coverage from the neck down.
- **2.10.4** Leather substitute materials may be used, providing they have been checked by the MotoAmerica Technical Director.
- **2.10.5** Use of a back protector is highly recommended.
- **2.10.6** Riders must wear a helmet which is in good condition, provides a good fit and is properly fastened.
- **2.10.7** Helmets must be of the full face type (integral) and conform to one of the recognized international standards:

Europe	ECE 22-05 'P'
Luiopo	

- Japan JIS T 8133 :
- USA SNELL M 2010
- **2.10.8** Visors must be made of a shatterproof material.
- **2.10.9** Disposable "tear-offs" are permitted.
- 2.10.10 The riders clothing must include their name, emergency contact, and blood type adhered to the left-side lining adjacent to the main zipper.
- **2.10.11** Any question concerning the suitability or condition of the riders clothing and/or helmet shall be decided by the MotoAmerica Technical Director, who may, if he so wishes, consult with the manufacturers of the product before making a final decision.

## 2.11 PROCEDURES FOR TECHNICAL CONTROL

A rider is at all times responsible for his motorcycle.

**2.11.1** At each circuit the Technical Checking Area consisting of the *parc fermé* and the inspection area must be clearly defined:

## a. Parc fermé

The *parc fermé* is a restricted access area sealed with fences or other physical divisions with one or more gates.

The gates and the area are under the control of marshals when the *parc fermé* is in use (e.g. after practice/race).

The *parc fermé* area must be sufficiently large to give shelter to all participating motorcycles.

The only persons allowed to enter the parc fermé are the:

- MotoAmerica Technical Director and Technical Staff
- Race Direction Members
- FIMNA Stewards
- Tire Manufacturer's staff
- Riders and Team Managers of motorcycles staying in the parc fermé
- Up to 3 Team Mechanics until dismissed by the technical stewards

No other persons have the right to enter and stay in the *parc fermé* unless invited by the MotoAmerica Technical Director.

#### b. Inspection area

The inspection area is a sensitive area where motorcycles are disassembled and inspected and technical meetings are held. Therefore, the inspection area is highly restricted.

The following persons are allowed to remain in the inspection area:

- The MotoAmerica Technical Director and Technical Staff
- The Race Direction Members
- The FIMNA Stewards
- The Riders, Team managers or their representatives of the inspected motorcycles
- For disassembling operations, up to 3 mechanics per motorcycle may be present

Any other persons may enter or stay in the inspection area at the sole discretion of the MotoAmerica Technical Director. In case of an engine inspection, the inspected entrant has the right to request a reserved area where other entrants cannot watch closely.

In the inspection areas, under the control of the Technical Manager and the supervision of the MotoAmerica Technical Director, suitable equipment will be installed to conduct the various tests, e.g.

- 1. Equipment for measuring the noise of the motorcycle
- 2. Weighing scales with check weights for calibration purposes
- 3. Instruments for measuring engine capacity
- 4. Rulers and degree discs and gauges for measuring other dimensions
- **2.11.2** The technical control procedure will be carried out in accordance with the schedule set out in these Regulations. The Technical Stewards must be available throughout the event to check motorcycles and equipment as required by the MotoAmerica Technical Director.
- **2.11.3** Presentation of a motorcycle will be deemed as an implicit statement of conformity with the technical regulations. A rider's presence at the technical control is not mandatory.
- **2.11.4** The motorcycle will be inspected under the name of the rider.
- **2.11.5** For each motorcycle the Technical Stewards will prepare a technical control card on to which will be recorded, amongst other information, the team presenting the motorcycle and the rider.
- **2.11.6** The Technical Stewards must inspect the motorcycle for obvious safety omissions and the MotoAmerica Technical Director may, at his discretion, choose to check the motorcycles for technical compliance with all other aspects of these Regulations.
- 2.11.7 The MotoAmerica Technical Director will refuse any motorcycle that does not have a correctly-positioned positive transponder attachment. The transponder must be fixed to the motorcycle in the position and orientation as shown in the Timekeeping information given to teams pre-season and available at each event. Positive attachment of the transponder bracket consists of a minimum of tiewraps, but preferably by screw or rivet. Velcro or adhesive alone will not be accepted. The transponder retaining clip must also be secured by a tie-wrap.
- **2.11.8** At the conclusion of the check, the Technical Stewards will place a small sticker on the motorcycle indicating that it has passed the safety checks.
- **2.11.9** The Technical Manager will prepare a report on the results of technical control which, will be submitted to the Event Management Committee via the MotoAmerica Technical Director.
- **2.11.10** The Technical Stewards must re-inspect any motorcycle that has been involved in an accident. This would normally be carried out at the inspection area.
- 2.11.11 The Technical Stewards must be available, based on instructions from the MotoAmerica 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.

**2.11.12** At the end of Superpole 1, the Technical Manager will ensure that the classified motorcycles are placed in the parc fermé for a period of at least 30 minutes after the end of the session.

At the end of Superpole 2, the Technical Manager will ensure that classified motorcycles are placed in the parc fermé for a period of at least 30 minutes after the end of the session.

At the end of the races, the Technical Manager will ensure that all classified motorcycles are placed in the parc fermé for a period of at least 30 minutes from the end of the race (unless held longer at the discretion of the Technical Director) with the following exception;

At the end of Superbike Race 1 (one) the machines will be allowed to return to their pits where following confirmation of tire stickers by the Technical Director or his approved staff the wheels may be removed. Data may be downloaded, NO other work may be carried out until 15 minutes after the end of Superbike Race 1 (see art 3.4.3). The motorcycle must remain in a visible area during this period.

The motorcycles must be checked for compliance according to the Verification Guidelines (Art.2.10), and any other technical requirement if requested by the MotoAmerica Technical Director.

Competitors must retrieve their motorcycles within approximately 30 minutes after the motorcycle entered the parc fermé, except for those motorcycles chosen for disassembly. After this time limit, the parc fermé officials will no longer be responsible for the motorcycles left behind.

- **2.11.13** The MotoAmerica Technical Director may require a team to provide such parts or samples as he may deem necessary.
- **2.11.14** If a motorcycle is involved in an accident, the MotoAmerica Technical Director or his appointed staff must check the motorcycle to ensure that no defect of a serious nature has occurred. However, it is the responsibility of the rider or the team to present his motorcycle for this re-examination together with helmet and clothing.

If the helmet is clearly defective, the Technical Manager must arrange to retain this helmet. The Medical Director must send this helmet, together with the accident and medical report (and pictures and video, if available) to the AMA/ FIMNA and/or the Federation of the rider.

- 2.11.15 Noise may be checked after Superpole as well as after the race. Noise may be checked at any time of the event by request of the MotoAmerica Technical Director. On request of rider, team or mechanic, noise of their own motorcycles can be checked at any time during the event.
- **2.11.16** The random weight check during practices will be held with minimum disturbance to the riders.

The MotoAmerica Technical Director has the final authority in case of a dispute on the conformity of the parts in question and for their acceptance.

## 2.12 VERIFICATION GUIDELINES FOR TECHNICAL STEWARDS

- **2.12.1** Verification for the classes
  - Make sure all necessary measures and administrative equipment are in place at least 1 hour before the Technical control is due to open.
  - Decide who is doing what and note decisions. "Efficiency" must be the watchword. Always keep cheerful and remember the reasons for Technical controls: SAFETY AND FAIRNESS.
  - Be well informed. Make sure MotoAmerica has supplied you with all technical "updates" that may have been issued subsequent to the printing of the Technical Regulations. Copies of all homologation documents must be in your possession.
  - Inspection must take place under cover with a large enough area (min. surface 100 sq. metres).
  - Weighing apparatus must be accurate and practical. The scale must be certified in the current year.
  - Rules regarding noise level and measurement must be respected.
  - The scales and noise meter will be available to the teams or riders for pre-race checking in the technical control area.

#### **2.12.2** General Verification Guidelines

The motorcycles will not be required for weight and/or noise check at the pre-race technical inspection.

Noise test must take place in a clear area adjacent to the Technical control at least 5 metres from any possible noise reflecting obstruction.

The riders and teams must be aware that the weight and noise may be checked at random during practice in the pit-lane, at the end of Superpole and at the end of each race.

Claiming that the noise and weight were not officially controlled before the race will not be grounds for appeal. Conformity of the rules is the responsibility of the rider and the team (or of the participants).

The MotoAmerica Technical Director reserves the right to spot check the weight and noise of any motorcycles on pit row during free practice and official practice. This can occur at any time during the free practice and in the first forty minutes of any official (timed) practice. This will be carried out with the least possible inconvenience to the rider or the team.

Motorcycles arriving later than the first free practice must be controlled in the technical control area.

At the conclusion of the inspections, a small sticker or coloured mark will be placed on the motorcycle indicating that the motorcycle had passed inspection The MotoAmerica Technical Director/Technical Manager must re-inspect any motorcycle that has been involved in an accident.

The Technical Stewards must be available, based on instructions from the MotoAmerica Technical Director or the Technical Manager, to re-inspect any motorcycle for compliance during the meeting.

2.12.3 Dry Superbike

Each motorcycle which completed the Superpole may be checked.

The minimum checks are weight and noise.

The MotoAmerica Technical Director may request other checks.

2.12.4 Superbike/STK 1000 Race 1

The first five motorcycles plus one at random from six through fifteen can be checked for the following compliance points:

- Weight: The weight will be checked in the condition that the motorcycle has finished the race. No elements can be added to the motorcycle neither fuel, oil, water nor tires.
- Noise
- Throttle bodies / injection: Homologation points
- The MotoAmerica Technical Director may request other checks.
- 2.12.5 Superbike/STK 1000 Race 2

The first ten motorcycles plus one at random from eleven through fifteen can be checked for the following compliance points:

- Weight: The weight will be checked in the condition that the motorcycle has finished the race. No elements can be added to the motorcycle neither fuel, oil, water nor tires.
- Noise.
- Throttle bodies/injection: Measurement and inspection of both inlet and outlet tract. (Homologation points)
- Engine: Any engine, chosen at random, can be checked internally for capacity and compliance with the regulations.

The random choice can be determined by the finishing positions selected prior to the race by the Technical Manager. The MotoAmerica Technical Director may at his absolute discretion require the control of any additional motorcycle and other checks.

The MotoAmerica Technical Director may require a team to provide parts or samples, as he may deem necessary to confirm compliance with the rules.

The MotoAmerica Technical Director may request other checks.

## 2.12.6 Supersport & Superstock 600 Races

The first ten motorcycles plus one at random from eleven through fifteen can be checked for the following compliance points:

- Weight: The weight will be checked in the condition that the motorcycle has finished the race. No elements can be added to the motorcycle neither fuel, oil, water nor tires.
- Noise.
- Throttle bodies /injection: Measurement and inspection of both inlet and outlet tract.
- Engine: One engine and up to a maximum of three engines, chosen at random, can be checked internally for capacity, cams, valve size, timing, etc.
- Tire, air box and electric starter compliance.

The random choice can be determined by the finishing positions selected prior to the race by the Technical Manager. The MotoAmerica Technical Director may at his absolute discretion require the control of any additional motorcycle and other checks.

#### 2.12.7 Timetable

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

See final instructions for event specific timetable.

#### 2.12.8 Equipment list

- Revolution meter
- Sound meter and calibrator
- Slide calliper
- Depth gauge
- Steel measuring tape
- Seals
- Weighing apparatus (scales) with calibration weights
- Tools for measuring engine capacity
- Tools for measuring valve lift
- Weighing apparatus for investigation of valve weights
- Color for marking parts
- Magnet for materials testing
- Computer with Homologation Documents
- **2.12.9** Document list

- Regulations of the CURRENT year.
- Homologation documents
- Homologations Information
- Technical control forms
- Writing materials

## 2.13 SOUND LEVEL CONTROL

#### Sound limits in force:

The maximum sound level shall be measured at a mean piston speed of 11 m/sec. The fixed RPM specified in Art. 2.13.6 may be used.

- **2.13.1** With the microphone placed at 50 cm from the exhaust pipe at an angle of 45° measured from the center-line of the exhaust end and at the height of the exhaust pipe, but at least 20 cm above the ground. If this is not possible, the measurement can be taken at 45° upwards.
- **2.13.2** During a sound test, motorcycles not equipped with a gear-box neutral must be placed on a stand.
- **2.13.3** The silencers will be marked when they are checked and it is not allowed to change them after the verification, except for any spare silencer which has also been checked and marked.
- **2.13.4** The rider shall keep his engine running out of gear and shall increase the engine speed until it reaches the specified Revolutions Per Minute (RPM). Measurements must be taken when the specified RPM is reached.

#### 2.13.5 Noise control

Due to the similarity of the piston stroke in different engine configurations within the capacity classes, the noise test will be conducted at a fixed RPM. For reference only, the mean piston speed at which the noise test is conducted is calculated at 11 m/sec.

	2 cylinders	3 cylinders	4 cylinders
600cc	5,500 RPM	6,500 RPM	7,000 RPM
750cc	5,500 RPM	6,000 RPM	7,000 RPM
over 750cc	5,000 RPM	5,000 RPM	5,500 RPM

The maximum sound level for engines with more than one cylinder will be measured on each exhaust end.

A motorcycle which does not comply with the maximum sound limits may be presented several times at pre-race control.

The surrounding sound must not exceed 90 dB/A within a 5 metres radius from the power source during tests.

Apparatus for noise control must be to international standard IEC 651, Type 1.

The sound level meter must be equipped with a calibrator for control and adjustment of the meter during periods of use.

The "slow response" setting must always be used.

#### 2.13.6 Sound control after the competition

In a competition which requires a final examination of motorcycles before the results are announced, this examination must include a sound control measurement of at least the first three motorcycles listed in the final classification. At this final test, there will be a 3 dB/A tolerance.

## 2.13.7 Noise control during a competition

In a competition which requires noise control tests during the event, motorcycles must comply with the noise limits without the tolerance in Article 2.11.

#### 2.13.8 Guidelines for use of Sound Level Meters

The Technical Stewards must arrive in sufficient time for discussions with the MotoAmerica Technical Director and other Technical Stewards in order that a suitable test site and testing policy can be agreed.

Sound level measuring equipment must include a compatible calibrator, which must be used immediately before testing begins and always just prior to a re-test if a disciplinary sanction may be imposed.

Two sets of equipment must be available in case of failure of tachometer, sound level meter or calibrator during technical control.

Tests may take place in rain or excessively damp conditions. Motorcycles considered excessively noisy must be individually tested if conditions allow.

In other than moderate wind, motorcycles must face forward in the wind direction. (Mechanical noise will blow forward, away from microphone).

'Slow' meter response must be used.

'A' weighted setting on sound level meter.

No rounding down of the meter reading, that is: 110.9 dB/A = 110.9 dB/A.

#### 2.13.9 Corrections

Type 1 meter: deduct 1 dB/A

#### 2.13.10 **Precision of the method (tolerances)**

All corrections are accumulative. Action and decisions will depend on the Sporting Discipline concerned, and decisions taken during prior discussions with the MotoAmerica Technical Director.

#### 2.13.10 **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 MotoAmerica within 30 minutes of the publication of the results - which is analogous to the end of the race.

The protest must then be confirmed in writing or withdrawn within 1 hour at the latest after the publication of the results.

Following Superbike Race 1 the intention to protest other riders for technical breaches only must be submitted within 15 minutes of the end of the race. For sporting protests the time limits remain as above.

Protests must be handed to a responsible official (Race Direction, Technical Director) together with the protest fee or equivalent.

Teams and riders contracted to compete in the Championship may submit a letter of guarantee from MotoAmerica 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 (e.g. weight, noise, materials, etc.) may be made after the start of official practice.

# 3.0 DISCIPLINARY AND ARBITRATION CODE

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	PENALTIES THE DISCIPLINARY AND ARBITRATION BODIES PROTESTS AND APPEALS PROCEDURE BEFORE ALL THE DISCIPLINARY BODIES COSTS OF PROCEDURE LAW OF MERCY

## 3.0 2016 DISCIPLINARY AND ARBITRATION CODE

## 3.1 PRINCIPLES

The obligations incumbent upon the participants, officials and organizers are set out in these Regulations. Violations or non-observance of these obligations will be subject to the penalties laid down in this chapter.

#### 3.2 PENALTIES

The penalties are:

- warnings
- fines
- penalty points
- drop of position
- ride through
- time penalties
- grid penalty
- disqualification
- points loss (withdrawal of Championship points)
- suspension
- exclusion

## **3.2.1** Definition and application of penalties

Warnings:	Can be made privately or publicly
Penalty points:	may be imposed by 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.
	<ul> <li>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 serves a disqualification.</li> </ul>
Fines:	cash penalty up to 10,000 USD
Drop 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 position at the rider's next race

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
Points loss:	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 FIMNA or AMA 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 FIM North America, qualified to deal with disciplinary and arbitration matters, are:

- The Race Direction
- The FIM North America Stewards
- The Permanent Bureau
- The Court of Arbitration for Sports (CAS)
- **3.3.1** The Race Direction
- **3.3.1.1** Composition

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 penalize riders, teams' personnel, officials, promoters, organizers and all the persons involved in any capacity whatsoever in an event or in the Championship for infringements of the Regulations, including the following:

- 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:

- penalty points
- warnings
- fines
- drop of position
- ride through
- time penalties
- grid penalty
- disqualification
- points loss (withdrawal of Championship points)
- suspension
- 3.3.2 The FIM Stewards Panel
- 3.3.2.1 Composition

The Composition of the FIMNA Stewards Panel is in accordance with the requirements laid down in Article 1.7.

3.3.2.2 Competence

The FIM North America Stewards Panel will hear any appeals against decisions taken by the Race Direction.

- **3.3.2.3** Penalties that may be pronounced by the FIMNA Stewards Panel only following an appeal:
  - fines
  - warnings
  - time penalties
  - grid penalty
  - disqualification
  - points loss (withdrawal of Championship points)
  - suspension

## 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 FIMNA, has the right to protest against that decision.

No protest may be lodged against a decision of the Race Direction entailing:

- a drop 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
- a photo finish
- **3.4.2** Right of appeal to the FIM North America Stewards against a decision of the Race Direction

No appeal may be lodged against a decision entailing or not:

- a drop 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
- a photo finish

When no appeal may be lodged the decision of the Race Direction is final.

**3.4.3** Right of appeal to the MotoAmerica Permanent Bureau against a decision of the FIM North America Stewards

No appeal may be lodged if the FIM North America Stewards confirm the previous decision of the Race Direction. In this case, the decision of the FIM North America Stewards is final.

**3.4.4** Right of appeal to the Court of Arbitration for Sport (CAS) against a decision of the MotoAmerica Permanent Bureau

No appeal may be lodged against a decision entailing or not:

- a drop 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
- a photo finish

The decision of the CAS is final.

## **3.4.5** 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 within 30 minutes of the publication of the results. 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 (Race Director or any member of Race Direction) together with the security deposit of 750 USD or equivalent.

Teams and riders contracted to compete in the Championship may submit a letter of guarantee from MotoAmerica 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.

After Superbike race 1, the intention to protest other riders for technical reasons must be submitted within 15 minutes of the end of the race. For sporting protests the time limits remain as above.

**3.4.6** 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.

**3.4.7** Effect of the decision upon a protest

The decision of the Race Direction of determination of penalty is immediate.

**3.4.8** 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 North America Stewards	5 days
statement of appeal before the CAS	5 days

The time limits shall be taken from the date and time of receipt of the decision by the appellant.

#### **3.4.9** Lodging of an appeal

To be admissible, the statement of appeal must be submitted by letter, sent by registered letter, special courier or email to FIM North America to be forwarded to the MotoAmerica Permanent Bureau. It is the appellant's responsibility to assure receipt of the appeal within the time limits.

The correct security deposit for appeal must be handed to FIM North America Chief Steward for an appeal before the FIM Stewards or paid to FIM North America for an appeal to the MotoAmerica Permanent Bureau.

**3.4.9.1** Security deposit for appeals

The amount of the security deposit is 1,500 USD.

Teams and riders contracted to compete in the Championships may submit a letter of guarantee.

Within 10 days following the statement of appeal before the MotoAmerica Permanent Bureau, the appellant assigns to FIM North America a brief of appeal stating the facts.

If the appeal was not lodged and/or the security deposit for the appeal was not paid within the deadline specified in article 3.4.8, the appeal will be declared inadmissible without hearing.

#### **3.4.9.2** 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.

#### **3.4.9.3** Time limits to be observed for appeal hearings

The FIM North America Stewards must be convened to examine an appeal immediately after the brief of appeal is received.

The MotoAmerica Permanent Bureau must be convened to examine an appeal not later than 6 weeks after the brief of appeal is received. The FIM North America Stewards must in all cases pronounce a decision.

#### 3.4.10 Effect of an appeal

On request of the appellant, the FIM North America 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 MotoAmerica Permanent Bureau may decide a stay of the provisional execution adjudicated by the FIM North America 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 offense 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 English. 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 proceedings have begun, each of the parties involved will 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 may 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 room and shall not be allowed to speak to any other witness who has still to give evidence.

The arbitration body may summon experts.

3.5.4 Judgment

Decisions of all disciplinary or arbitration bodies will be reached 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 Judgments

The decisions of the Race Direction or of the FIM North America Stewards must be notified directly at the event venue, or failing that, addressed by registered letter with acknowledgement of receipt. All judgments of the MotoAmerica Permanent Bureau 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 Judgments

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 FIM North America nor against any person having published the statement.

Furthermore, final decisions will be published in the media center and in the AMA Magazine unless the arbitration body itself decides otherwise.

## 3.6 COSTS OF PROCEDURE

The costs of a disciplinary or arbitration decision will be assessed by the FIMNA and will be awarded against the losing party, unless the arbitration body decides otherwise.

## **3.6.1** Payment of fines and costs

If the penalty is definitive, all fines and costs must be paid to FIM North America within 30 days of notification of the judgment decision according to Article 3.5.5. The person or body affected by the decision shall be automatically suspended from participation in all FIM North America and AMA activities, until such time as full payment has been received.

## 3.7 LAW OF MERCY

FIM North America, after consultation with the MotoAmerica Bureau may mitigate or completely forgive the penalty of a person or group of persons after having exhausted all the appeal procedures.

## 3.8 ARBITRATION CLAUSE

Final decisions made by the disciplinary bodies (exception art. 3.4.2.3) may be submitted exclusively to the Court of Arbitration for Sport by way of appeal within the time limit as laid down in article 3.4.6, which shall have exclusive authority to impose a definitive settlement in accordance with the Code of Arbitration applicable to sport.

## 4.0 CIRCUIT STANDARDS

Circuit standards will be guided by the "FIM STANDARDS FOR ROAD RACING CIRCUITS" (SRRC).

5.0	MEDICAL CODE

The regulations will be guided by the "FIM MEDICAL CODE".

# 6.0 ANTI-DOPING CODE

The regulations will be governed by the US Anti-Doping Agency (USADA).

# 7.0 ENVIRONMENTAL CODE

The regulations will be guided by the FIM Environments Code.