



FEDERATION INTERNATIONALE
DE MOTOCYCLISME

TECHNICAL RULES
HARD ENDURO

2024

RÈGLEMENTS TECHNIQUES
HARD ENDURO



HARD ENDURO
WORLD CHAMPIONSHIP

Technical Rules Hard Enduro

2024

Règlements Techniques Hard Enduro



YEAR 2024		
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DIAGRAMS

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

01.01 INTRODUCTION

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

01.03 FREEDOM OF CONSTRUCTION

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

01.05 CATEGORIES AND GROUPS OF MOTORCYCLES

For FIM Hard Enduro World Championship there are accepted followed category and group:

All solo motorcycles (Group A) must be constructed in such a way that they are entirely controlled by a rider

Category I

Vehicles propelled by a thermal engine and by the action of only one driving wheel in contact with the ground in only one direction.

01.07 CLASSES

For FIM Hard Enduro World Championship there are no classes.

01.11 MEASUREMENT OF CAPACITY

11.11 Reciprocating movement engine, "Otto" Cycle

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

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

where D = bore
and C = stroke

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

When measuring, a tolerance of 1/10 [mm] is permitted in the bore. If with this tolerance the capacity limit is exceeded for the class in question, a further measurement should be taken with the engine cold, to 1/100 [mm] limits.

11.13 Rotary engines

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

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

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

This engine is classified as a 4-stroke.

11.15 Wankel system

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

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

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

This engine is classified as a 4-stroke.

01.17 SUPERCHARGING

Supercharging by means of a device of any kind is forbidden in all meetings.

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

01.18 TELEMETRY

Information must not be transmitted in any way to or from a moving motorcycle.

An official signalling device may be required on the machine.
Automatic lap timing devices are not considered as “telemetry”.
Automatic lap timing devices must not disrupt any official time keeping methods and equipment.

01.19 MOTORCYCLE WEIGHTS

At present, there are no minimum weight limits for motorcycles. Minimum weight limits may be introduced in the future.

01.21 DESIGNATION OF MAKE

When two manufacturers are involved in the construction of a motorcycle the name of both must appear on the machine as follows:

- The name of the chassis manufacturer
- The name of the engine manufacturer

01.23 DEFINITION OF A PROTOTYPE

A prototype motorcycle is a vehicle which must conform to the safety requirements as required by the FIM Sporting Code and Appendices applicable to the type of competition for which it is to be used.

01.25 GENERAL SPECIFICATIONS

The following specifications apply to all vehicles of the groups indicated and to all types of competitions except where otherwise stated in the corresponding section of the FIM Sporting Code.

They should also be applied to all national competitions unless the FMNR (National Motorcycling Federation) has otherwise directed.

Further specifications for some competitions may also be required and these will be detailed in either the appropriate FIM Appendix or in the Supplementary Regulations for the competition in question.

Concerning material verification, in case of doubt, a sample or the part in question shall be taken and analysed at a Material Testing laboratory.

25.01 Use of titanium

The use of titanium alloy in the construction of the frame, the front forks (referred only to structural parts: legs, tubes, etc), the handlebars, the swinging arms, the swinging arm spindles, and the wheel spindles is forbidden.

The use of light alloys for wheel spindles is also forbidden.

The use of titanium alloy nuts and bolts is allowed.

25.03 Carbon fibre

The use of carbon fibre reinforced materials is authorised (with the exception of handlebars and wheel rims).

25.04 Ceramic materials

The use of ceramic parts is forbidden.

25.05 Other equipment

No signal of any kind may pass between a moving motorcycle and any person, including radio and Bluetooth communication. The exception is for the signal from the time keeping transponder, automatic lap timing devices or from the approved on-board cameras (with prior written approval from the Championship Promoter/Organiser, which cannot be granted for helmet mounted cameras).

25.06 Number of cylinders

The number of cylinders in an engine is determined by the number of combustion chambers.

25.07

If separate combustion spaces are used they must be connected by an unrestricted passage of minimum cross sectional area at least 50% of the total inlet port area.

01.26 DEFINITION OF A FRAME OF A SOLO MOTORCYCLE

The structure or structures used to join any steering mechanism at the front of the machine to the engine/gear box unit and to all components of the rear suspension.

01.27 STARTING DEVICES

Starting devices for the engine are compulsory.

01.29 OPEN TRANSMISSION GUARDS

A guard must be fitted to the countershaft sprocket

29.01

If the primary transmission is exposed, it must be fitted with a guard as a safety measure. The guard must be designed so that rider or the passenger cannot under any circumstances come into accidental contact with the transmission parts. It must be designed to protect the rider or passenger from injuring his fingers.

29.04

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

01.31 EXHAUST PIPES

Exhaust pipes and silencers must fulfil all the requirements concerning sound control (see also Art. 01.79).

31.01

The axis of the silencer end must be parallel (tolerance 15°) to the two principal longitudinal planes of the vehicle. The extremity of the silencer must not pass the vertical tangent of the rear tyre.

31.02

The edge of the silencer shall not be dangerous in case of accidental contact with the riders or helpers. If the final tube protrudes more than 3 [mm], the edge must be rolled to an angle of 180° or radiused (see pictures below). In both cases, the edge thickness shall be 3 [mm] minimum. See Figure 1

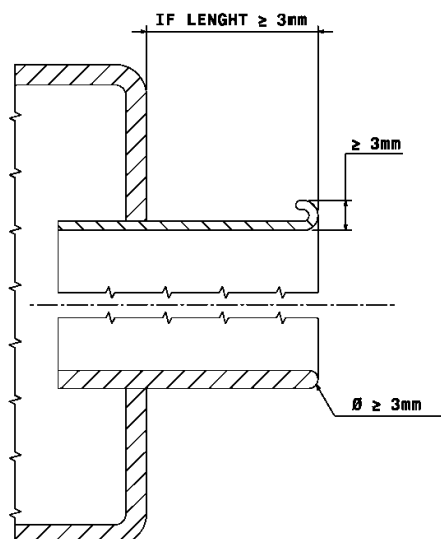


Figure 1

31.03

Exhaust fumes must be discharged towards the rear but not in such a manner as to raise dust, foul the tyres or brakes, or any other rider.

31.04

Any valve systems installed on the exhaust system with a view to influencing (or modifying) the sound level meter test is forbidden. Only exhaust valve systems (e.g. EXUP) provided by the manufacturer on the manifold are authorised. The setting is free.

01.33 HANDLEBARS

33.01

The width of handlebars must be not less than 600 [mm] and not more than 850 [mm] (see Figure 2).

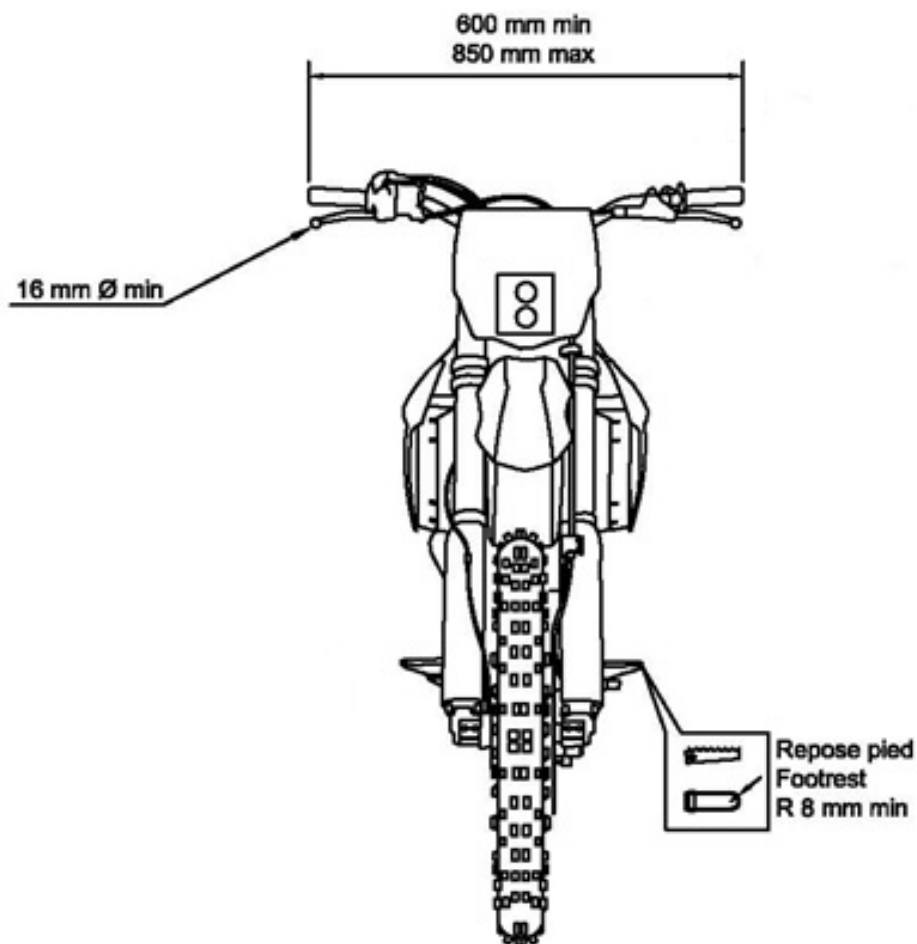


Figure 2

33.02

The handlebars must be equipped with a protection pad on the cross bar. Handlebars without a cross member must be equipped with a protection pad located in the middle of the handlebars, covering widely the handlebars clamps.

33.03

Handlebar clamps must be very carefully radiused and engineered to avoid any fracture points in the handlebar.

33.04

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

33.06

When hand protectors are used, these must be made of a shatter-resistant material and have a permanent opening for the hand.

33.07

Handlebars made of composite materials are not authorised.

33.08

Repair by welding of light alloy handlebars is prohibited.

33.09

Solid stops (when on full-lock, other than steering dampers) must be fitted. These must ensure a minimum clearance of 30 [mm] between the handlebar with levers and the tank to prevent trapping the rider's fingers.

01.35 CONTROL LEVERS

35.01

All handlebar levers (clutch, brake, etc.) must be in principle 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. (see Figure 2). If the gear lever consists of a tube, then its edge must be rounded.

35.03

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

35.04

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

35.05

Hand -and foot- controls may be modified for mobility challenged riders.

01.37 THROTTLE CONTROLS**37.01**

Throttle controls must be self-closing when not held by the hand. The throttle operation (opening and closing) shall only be activated by mechanical cable from the twist grip directly attached to the throttle valve. Electronically controlled throttle valves are forbidden. All air intakes into the cylinder must pass through the throttle body. No other means allowing ambient air into the inlet track of the cylinder head are allowed.

37.02

Motorcycles must be equipped with a functional ignition kill switch or button mounted on either right or left side of handlebar (within reach of the hand while on the hand grips), that cut the power to the engine.

01.39 FOOTRESTS

Footrests must be solidly fixed or of a folding type but in this case must be fitted with a device which automatically returns them to the normal position, and an integral protection is to be provided at the end of the footrest which must have at least 8 [mm] radius (see Figure 2). The footrest teeth shall not be sharp. The height of the footrest teeth must be 10 [mm] maximum.

01.41 BRAKES

All motorcycles must have at least 2 efficient brakes (one on each wheel) operated independently.

01.43 MUDGUARDS AND WHEEL PROTECTION

Motorcycles must be fitted with rounded mudguards.

43.01

Mudguards must project laterally beyond the tyre on each side.

43.02

The front mudguard must cover the angle formed by one line drawn from the front edge of the mudguard to the centre of the wheel and one drawn horizontally through the centre of the wheel must be maximum 60°.

43.03

The rear mudguard must cover the angle formed by two lines, one drawn from the rear edge of the mudguard to the centre of the wheel and one drawn horizontally through the centre of the wheel shall not exceed 70°. (See Figure 3)

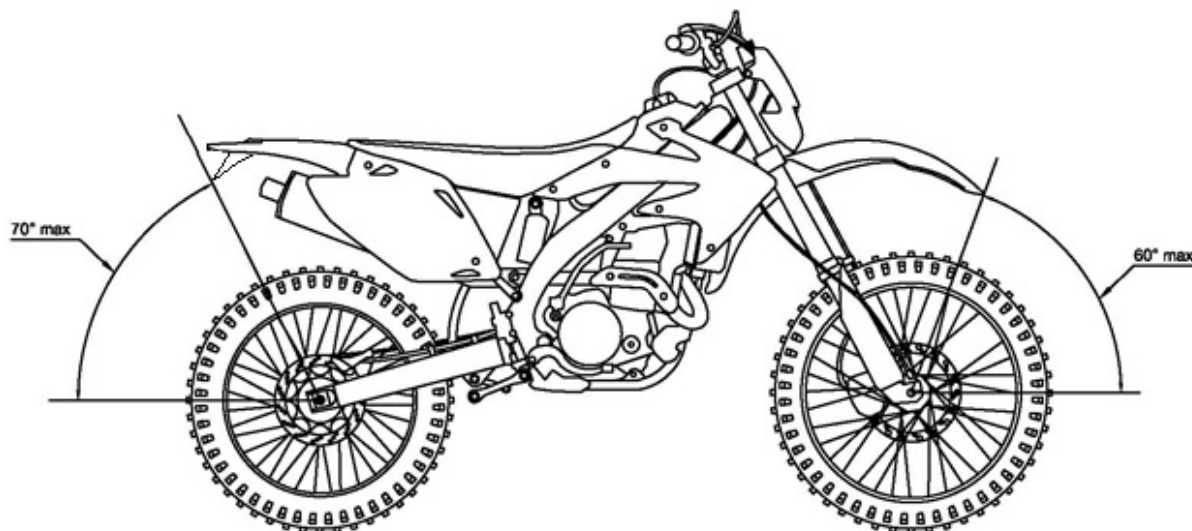


Figure 3

01.45 STREAMLINING

No type of streamlining is allowed.

Radiator covers (shields) must be made of flexible materials only (e.g. plastics).

01.46 SUSPENSION

Electronically controlled suspension systems may not be used.

01.47 WHEELS AND RIMS

47.01

All tyres will be measured mounted on the rim at a pressure of 1 [kg/sq.cm] (14 [lb./sq.in]); measurements are taken at a tyre section plane with a 90° angle with the ground plane.

47.02

Any modification to the rim or spokes of an integral wheel (cast, moulded, riveted) as supplied by the manufacturer (other than for rims with spokes, or valve and security bolts) is prohibited, except for tyre retention screws sometimes used to prevent the tyre movement relative to the rim. If the rim is modified for these purposes, bolts, screws, etc., must be fitted.

01.49 TYRES

49.01 General

Only tyres normally available from commercial or retail sources are authorised.

Modifying the tyre is not authorised. It is forbidden to treat tyres with chemicals, cut or groove them, use tyre warmers or any other means which may alter the shape, minimum Shore hardness, construction or other characteristics.

The tyres shall appear on the tyre manufacturers range catalogue or tyre specification lists available to the general public.

Any marking on the tyre reporting “FIM” approved or similar is forbidden for new production dates (from 2018). FIM Quality Products are exempt of this rule.

49.02 Enduro Tyres

Enduro Tyres are allowed for Hard Enduro World Championship.

They shall be approved according to UN Vehicle Regulation 75 Rev. 2 (2010) with the following specific features:

- Category of use (5.2): it shall be "snow" or "special" or "All terrain"
- Speed category symbol (5.4): M (130 Km/h) or above
- Load capacity index (5.5): 45 (165 Kg) or above.

It is recommended that the tyres be used according to the European Tyre and Rim Technical Organisation (ETRTO) guidelines.

The E approval mark and number as defined by the UN Vehicle Regulation R75 must be present on both the front and rear tyre sidewalls.

The DOT approval mark is also accepted.

The rear tyre must present a tread groove with a maximal depth of 13 [mm]. Such a depth must be measured between the "minimum" of the tread groove and a line tangent with the side wall (see Figure 4)

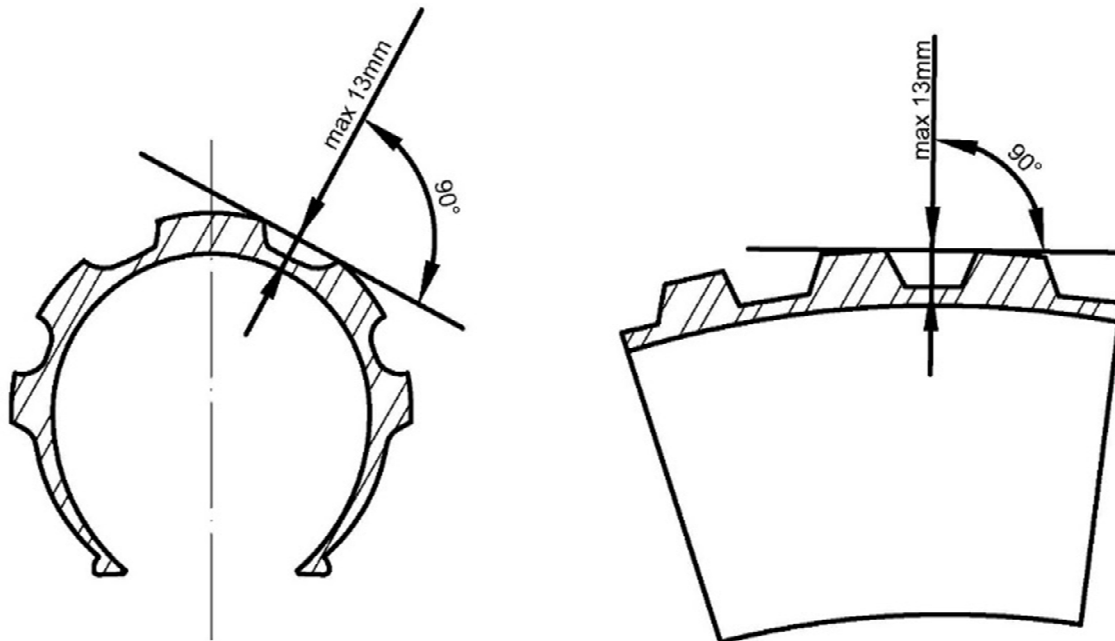


Figure 4

49.03 Motocross Tyres

The use of motocross tyres will be defined in the Supplementary Rules of the event, as long as legal roads are not used as a part of a track.

Only motocross tyres available from commercial tyre retail sources are authorised. These shall appear on the manufacturer's tyre catalogue or tyre specification list available to the general public.

49.04 Trial Tyres

Trial tyres (Art. 20 of Technical rules for Trial) are strictly forbidden.

49.05 Tyres with studs

The use of studded tyres will be defined in the Supplementary Rules of the event.

The use of studded tyres shall be approved by the Clerk of the Course/FIM Race Director, based on the state of the course.

Only studded tyres available from commercial tyre retail sources are authorised. These shall appear on the manufacturer's tyre catalogue or tyre specification list available to the general public.

All dimensions of the studs, their number, method of mounting, etc., must be in accordance with the national legislation of the country where the event is held.

Scoop or paddle tyres (continuous radial rib) are forbidden.

01.55 NUMBER PLATES

Number plates are required for Hard Enduro. They must be fitted as follows.

55.03

Number plates must be made of flexible materials only (e.g. plastic).

The shape of the front number plate is free and may be part of the general design of the motorcycle.

55.04

The plates curved not more than 50 [mm] out of a true plane must not be covered or bent.

The following minimum dimensions must be respected:

- Height of the number 100 [mm]
- Width of each number 50 [mm]
- Width of the stroke 20 [mm]
- Space between two numbers 10 [mm]

The English form for numbers must be used. That is single vertical line for the "one" and a simple sloping line without a horizontal line for the "seven" (see Diagram O).

Reflecting numbers are forbidden.

The numbers must be clearly legible and like the background, they must be painted in matt colours to avoid reflection from sunlight.

In case of a dispute, the decision of the FIM Technical Director will be final.

55.05 Front number plates

One plate must be fixed to the front inclined not more than 30° rearwards from the vertical. Holes can not be perforated between the numbers on the number plate. Under no circumstances may the numbers be perforated. See Figure 5

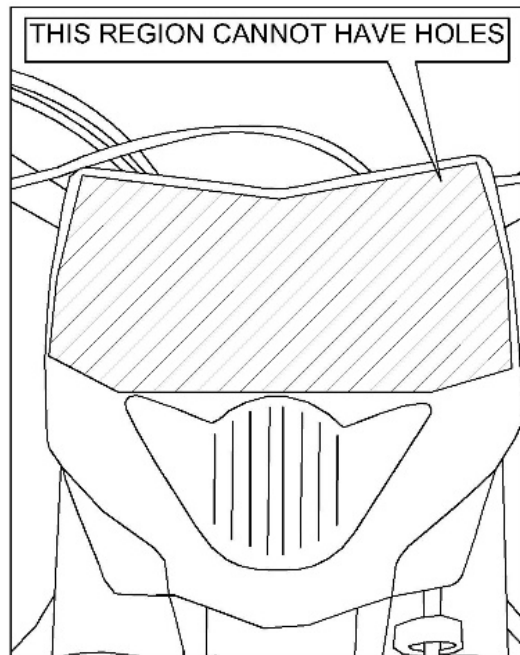


Figure 5

55.06 Side number plates

The side number plates must be positioned above a horizontal line drawn through the rear wheel spindle and the front edge of the plate must be behind a vertical line drawn at 200 [mm] to the rear of the rider's footrest.

They must be fixed in such a manner as to be clearly visible and they must not be masked by any part of the motorcycle or by the rider when seated in the riding position.

55.07

In place of separate plates, a space of equivalent size in matt colours can be painted or fixed on the bodywork.

55.09

All other number plates or markings on a motorcycle liable to cause confusion with the number must be removed before the start of a competition.

55.10

The figures must be applied to each machine by the organisers during the preliminary examination. The carrying of number plates is obligatory for the Six Days Enduro and any rider who retires during the event, must immediately remove them.

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

01.56 LIGHTING, WARNING EQUIPMENT AND SPEEDOMETERS

Motorcycles and their equipment must comply with rules specified in the Supplementary Regulations.

If public roads are used in an event every motorcycle and its equipment must comply with following:

- The electric generator must operate continuously and normally with respect to current and voltage requirements to run front and rear lights during the competition and at post competition control. The electrical connections must be retained.
- A stop light activated by the front or rear brake, a front and rear light as well as a speedometer, in good working order, are compulsory.
- The registration number of the machine (if applicable) shall be displayed on a plate firmly fixed to the rear mudguard of the machine (not handwritten on the mudguard direct). The number plate or its copy must be made of flexible and non-cutting material and must not exceed the width of the rear mudguard.
- With the engine running all electrical equipment/consumers of electricity simultaneously must be supplied with electricity produced by the generator.

If the event is held only on private land or using officially closed roads the motorcycle requirements will be stipulated in the Supplementary Regulations and every motorcycle and its equipment must comply with following:

- A front light with number plate combined are necessary (enduro appearance).
- The lights must be fitted, but do not have to be operational.

The use of the side-stand is optional.

Each motorcycle must be equipped with an exhaust pipe and a silencer in accordance with Article 01.31.

01.65 EQUIPMENT AND PROTECTIVE CLOTHING DURING PRACTICE AND RACE

The FIM cannot be held liable for any injuries that a rider or passenger may sustain from the use of a specific item of equipment or protective clothing.

65.01 Clothing and protectors

It is compulsory that riders wear either a suit or trousers and long-sleeve shirt.

Repaired overalls are acceptable provided that the repair guarantees protection to the same standard as the original garment. The Chief Technical Steward has the right to

refuse any temporary repairs which are not deemed to provide the same protection as the original garment.

Any modifications brought to the protectors remove the certification of the equipment and will not be accepted.

If the clothing and/or protectors listed below does not meet the technical requirements or is found to be defective, the Technical Steward must clearly mark in red (e.g. with a red dot) all international marks without destroying them and retain it until the end of the event. The rider must submit another clothing and/or protectors for approval by the Technical Steward. After an accident involving impact, the back and chest protector must be presented to the Technical Steward for examination.

65.01.1 Limb joints protectors

It is recommended that riders wear limb joint protectors for knees, hips, elbow and shoulders.

The limb joint protectors, if present, should be certified according the International norm:

- EN 1621-1, Level 1 or 2

65.01.2 Back protector

It is compulsory that riders wear a back protector.

The back protector must be certified according the International norm:

- EN 1621-2, Level 1 or 2, only CB (Central Back) or FB (Full Back)

Newer Labels (1621-2:2014)		
Full Back Level 1 or 2		
Older Labels (1621-2:2003)		
Full Back Level 1 or 2		

65.01.3 Chest protector

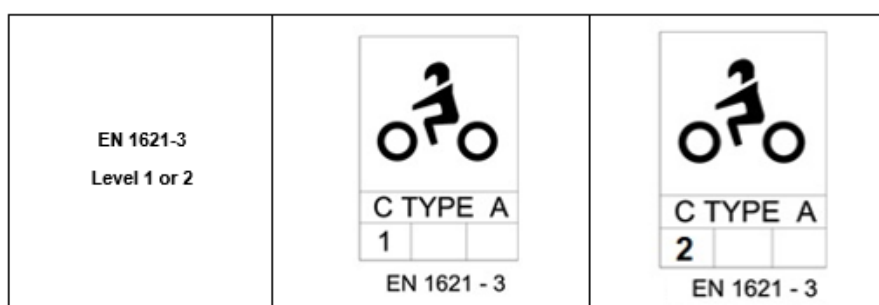
It is compulsory that riders wear a chest protector.

The chest protector must be certified according the International norm:

- EN 1621-3, Level 1 or 2, for the chest.

The chest protector according to EN 14021 are forbidden.

CHEST PROTECTOR: must comply with EN1621-3.



65.02 Footwear

Footwear, in a good condition, made of leather or other materials having equivalent properties, shall be worn and have a minimum height of 30 [cm].

65.03 Gloves

Riders shall wear gloves made of leather or other materials having equivalent properties.

65.04 Eye protection

Riders shall wear goggles (**in case of an off-road helmet**) or a **full closed visor (in case of a full face circuit racing helmet)**. The use of glasses, helmet visors and "roll offs" is also permitted. The use of "tear offs" is forbidden for environmental reasons. The material used for glasses, goggles and visors must be made of shatter-proof material. Helmet visors must not be an integral part of the helmet.

Eye protectors which cause visual disturbance (e.g. scratched) must not be used.

01.67 WEARING OF HELMETS

- It is compulsory for all participants taking part in practice and races to wear a protective helmet. The helmet must be properly fastened, be of a good fit, and be in good condition. The helmet must have a chin strap type 'retention system'.
- A protective lower face cover must be present and must be not detachable, not moveable.

- Helmets constructed with an outer shell made of more than one piece are not permitted (e.g. they must not contain any seam).
- A retention system with a strap and the double D ring closing system is recommended.
- All helmets must be marked with one of the official international standard marks mentioned in Art. 01.70. Any FMN approval marks do not substitute the official international standard marks.
- A helmet is made to provide protection. A helmet is not a platform to attach foreign objects. Cameras or other accessories are NOT permitted nor shall be attached to the rider's helmet.
- Riders with long hair should tie it up in a bun, or braid and tuck it into their shirt or jacket.

Failure to observe the above rules will entail exclusion.

01.69 HELMET OPERATIVE INSTRUCTIONS

69.01

Scrutineers, under the supervision of the Chief Technical Steward, may check prior to practice and the races that all helmets meet the technical requirements.

69.02

If a helmet does not meet the technical requirements or is found to be defective, the Technical Steward must clearly mark in red (e.g. with a red dot) all international marks without destroying them and retain the helmet until the end of the event. The rider must submit another helmet for approval by the Technical Steward. After an accident involving impact, the helmet must be presented to the Technical Steward for examination (see also Art. 77.02).

69.03

All helmets must be intact and no alteration must have been made to their construction. After an accident involving a shock or impact, the helmet must be presented to the Technical Steward for examination.

69.04

The Chief Technical Steward and/or the Technical Steward may perform the following checks before the rider is permitted to take part in practice of the race:

- 69.04.1** That the helmet fits well on the rider's head.

69.04.2 That it is not possible to slip the retention system over the chin, when fully fastened.

69.04.3 That it is not possible to pull the helmet over the rider's head by pulling it from the back of the helmet.

01.70 RECOGNISED HELMET APPROVAL MARKS

Helmets must conform to one of the recognised international standards:

FIM	FRHPhe-02
EUROPE	ECE 22-05 or ECE 22-06 (only "P" type)
JAPAN	JIS T 8133:2015 (only "Type 2 Full face")
USA	SNELL M 2015 or SNELL M 2020D or SNELL M 2020R or SNELL 2025R or SNELL 2025D

Examples of labels are reported below:

FIM	
EUROPE	
JAPAN	
USA	



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

A list of FIM Homologated helmets will be available on www.frhp.org

01.75 BADGE OF THE FIM

Under certain circumstances the FIM may permit the use of the FIM badge on certain equipment in order to show that the latter conforms to the standards laid down by the FIM. When this authorisation is granted and provided the equipment on which it appears is in good condition, the badge is then the guarantee of the conformity with the standard set by the FIM.

01.77 TECHNICAL VERIFICATIONS

77.01 Preparation

- Prior to the Technical Verifications, it should be decided who is doing what and note decisions. "Efficiency" must be the watchword. Always keep cheerful and remember the reasons for scrutineering: SAFETY AND FAIRNESS.
- Inspection must take place under cover with a large enough area.
- Inspection area must be supplied with the necessary equipment, including tables, chairs, electric light and power outlet.
- The necessary tools are listed below:
 - ✓ Revolution meter
 - ✓ Sound meter, calibrator and spare batteries
 - ✓ Slide calliper (for verifying engine capacity, carburettor diameter, etc.)
 - ✓ Depth gauge
 - ✓ Steel measuring tape

- ✓ Seals
 - ✓ Colour for marking parts
 - ✓ Heat resistant stickers or paint for marking the silencer (and solvent)
 - ✓ Magnet
 - ✓ Adequate fuel sample bottles
 - ✓ PC with CD Drive + updated operating system
 - ✓ Printer, etc. are recommended
 - ✓ Calculator
- The necessary documents are listed below:
 - ✓ Supplementary Regulations
 - ✓ FIM Technical Rules - current year
 - ✓ FIM Rules of the discipline concerned
 - ✓ FIM Sporting Code
 - ✓ Homologation papers (if applicable)
 - ✓ Writing material
 - ✓ Technical Verifications forms
 - All necessary measures and administrative equipment should be in place at least 1/2 hour before the start of the Technical Verifications is due to open (time in Supplementary Regulations).
 -

77.02 Verifications

- The Technical Verifications must be carried out in conformity with the procedure and times fixed in the CEN Rules and the Supplementary Regulations of the event.
- The Sound control must be carried out first. The Sound level will be recorded in the technical card. The exhaust silencer will be marked with paint or sticker.
- An example of minimum verifications that shall be performed is given below:

INITIAL TECHNICAL VERIFICATIONS	HARD ENDURO
Sound	✓
Cut-off switch	✓
Self-closing throttle	✓
Lights (front, rear, brake)	✓*
Make + model	✓
Race fuel certificate	✓
Vehicle identification plate/chassis number	✓
Crankcase	✓
Wheels (hubs)	✓
Registration plate + insurance (green card)	✓
Silencer	✓

Guard for the countershaft sprocket and rear sprocket	✓
Handlebar ends + protection + levers	✓
Side stand	✓
Tyres	✓
Helmet(s)	✓
Protective clothing	✓

* not applicable for closed circuits when specified in the Supplementary Regulations

- An overall inspection of the motorcycle must be carried out in conformity with the FIM rules. On accepted motorcycles a sticker or paint will be applied on the front of the main frame.
- The Technical Verifications will only be carried out when the Technical Verifications form of the motorcycle has been presented by the rider or his mechanic.
- At the arrival, at the end of the competition, all the marked parts on the motorcycles must be controlled. After control, the machines must be placed in a closed park for 30 minutes after arrival of the last rider from the class concerned, in case a protest is lodged, or further examination is required.
- If a motorcycle or a part of a motorcycle must be verified and completely dismantled, the motorcycle, the part or the group of parts must be sealed and shipped to a place where the required tools are present for a disassembly. The Clerk of the Course/FIM Race Director must take the decision for this operation.
- The disassembly and the verification of the motorcycle or the parts in question must take place in the presence of the Technical Steward, appointed to the event.
- The Organiser will pay the costs for the transportation and for the verification according to Art. 77.02.14 and 77.02.15.
- If a disassembly is required and ordered by the Clerk of the Course/FIM Race Director, following a protest, according to Art. 77.02.14 and 77.02.15, the losing party will incur all the transportation and verification costs, or a part of these costs fixed by the Clerk of the Course/FIM Race Director.

77.03 FMNR Chief Technical Steward and technical stewards

- The Chief Technical Steward must attend an event one hour before the Technical Verifications are due to begin. He must inform the Clerk of the Course/FIM Race Director and FIM Technical Director, if present, of his arrival.
- The Chief Technical Steward must ensure that all technical stewards appointed for the event carry out their duties in a proper manner. The Chief Technical Steward shall appoint the technical stewards to individual posts for the race, practices and final control.

- Scrutineers can have different tasks, but the team of scrutineers must have a minimum of four persons. The FMNR Chief Technical Steward must be a holder of an FIM SENIOR Technical Stewards Licence and at least one Technical Steward must hold a FIM Technical Stewards Licence. A minimum number of scrutineers is required according to the following:
 - Sound test, silencer marking: two
 - Machine inspection, helmet and clothing: twoIt is recommended to have 2 up to 4 helpers (staff).
- The Sound Control Officer (SCO) must be holder of a valid FIM Technical Steward's license, come with good knowledge and experience of the sound control and application of the test method. The FMNR may propose the services from a special technician (acoustic engineer) if there is no FIM licenced Technical Steward available to act as SCO.
- After the Technical Verifications has been completed the Chief Technical Steward will submit to the Clerk of the Course/FIM Race Direction a list stating the names of the accepted riders, machines and the sound levels.
- During the event, in the arrival and departure areas, the technical steward must control the repairs and changes made to the machines. He must control that no outside assistance is made. He must also control the condition of the machines.
- At individual time checks, the technical steward must control repairs and other technical assistance. He must also control that the machines are marked in order to ensure that no unallowed change in motorcycle occurred on the course.
- At the arrival, at the end of each day, the technical steward must check all parts and the condition of the machine. A rider is allowed an extra 30 minutes to repair or replace a silencer and/or exhaust pipe only.
- If a motorcycle is involved in an accident, the Technical Steward must check the machine to ensure that no defect of a serious nature has occurred. However, it is the responsibility of the rider to present his machine for this re-examination together with the helmet and clothing worn.
- The Chief Technical Steward has the right to look/ inspect any part of the motorcycle at any time of the event.
- All technical stewards shall be well informed and shall make sure their FMN has supplied them with all technical "updates" that may have been issued subsequent to the printing of the Technical Rules books.

77.04 FIM Technical Director

- The FIM Technical Director is appointed by the Director of the FIM International Technical Commission in consultation with the Director of the FIM Enduro Commission.

- The FIM Technical Director is not responsible for the technical verifications but will ensure that they are carried out in accordance with the FIM Technical Rules.
- The FIM Technical Director works in cooperation with the FIM Race Director and the FIM Delegate.
- The authority and duties of the FIM Technical Director include but are not limited to (Please, also refer to the FIM Technical Rules):
 - a) The FIM Technical Director will report any concerns or deficiencies relating to the technical verifications to the FIM Race Director and FIM Delegate and present proposals to resolve such concerns.
 - b) The FIM Technical Director is the final arbiter in relation to technical issues at the event.
 - c) The FIM Technical Director will examine with the Chief Technical Steward the motorcycle(s) and the protective equipment of any rider(s) involved in serious or fatal accidents and present a written report to the FIM Delegate.
 - d) The FIM Technical Director will attend all meetings of the Race Direction, but without voting rights.

77.05 Rider and/or mechanic

- The rider must present themselves to the Technical Verifications within the limit stated in the Supplementary Regulations.

The maximum number of persons present at the technical verifications except the rider will be the mechanic and/or the Team Manager.
- A rider remains at all times responsible that his machine and his personal protective gear are in conformity with the FIM Technical Rules for Hard Enduro motorcycles.
- The rider must present a clean motorcycle in conformity to the FIM Hard Enduro Technical Rules.
- A rider must present one motorcycle only and one spare silencer.
- The rider must present the rider's protective wear (equipment), e.g. helmet and clothing.
- For preliminary inspection rider have to bring one environmental mat and use it in Parc Fermé underneath of motorcycle in order to protect the ground from dropping liquids (oil, chain spray, fuel etc.). If environmental mats are provided by the organiser, this must be written in the Supplementary Regulation.

- After the marking, riders must confirm his agreement by signing the Technical Verifications Form (Technical Card), which must indicate the frame number. The motorcycles will then be placed immediately in a closed park (Parc Fermé).
- Competitors must retrieve their machines within 30 minutes after the opening of the closed park area, except for the machines that are chosen for disassembly. After this time limit, the closed park officials will no longer be responsible for the machines left behind.
- Any rider failing to report as required by the provisions below may be excluded from the meeting.
- The Clerk of the Course/FIM Race Director may prohibit any person who does not comply with the rules, or any rider who could be a danger to other participants or to spectators, from taking part in the competitions.

01.78 DANGEROUS MACHINES

If, during practice or the race, a Technical Steward finds that a machine is defective and might constitute a danger to other riders, he must immediately notify the Clerk of the Course/FIM Race Director or his deputy. It is their duty to exclude such a machine either from the practice or from the race itself.

01.79 SOUND CONTROL

Exhaust pipes and silencers must fulfil all the requirements concerning sound control (see also FIM Sound Regulation). Please refer to:

https://www.fim-moto.com/en/documents?tx_solr%5Bq%5D=sound

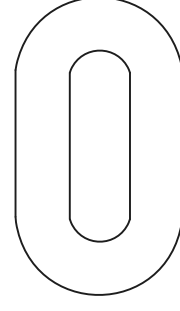
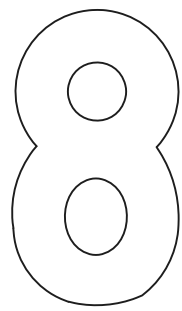
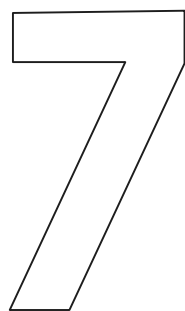
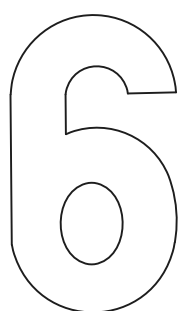
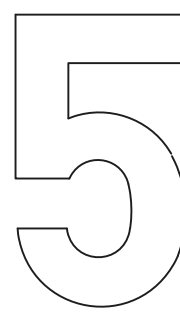
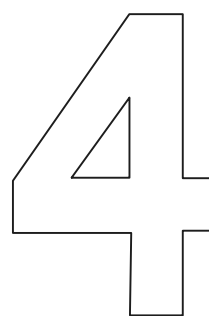
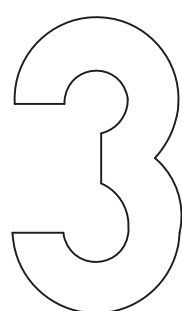
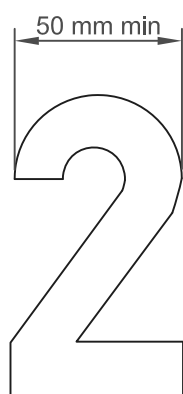
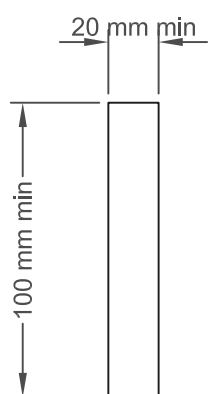
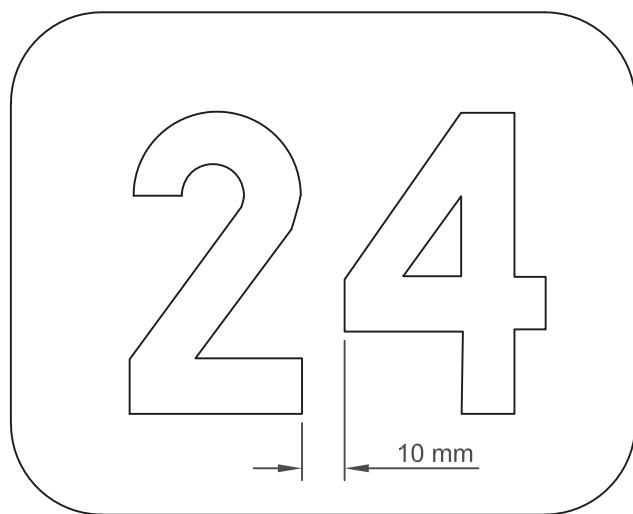
01.80 FUEL REGULATIONS

Please refer to FIM Fuel Regulations:

https://www.fim-moto.com/en/documents?tx_solr%5Bq%5D=fuel

Diagrams

NUMBERS/NÚMEROS



TEN FITTING TESTS FOR HELMETS **DIX TESTS D'ADAPTATION POUR LES CASQUES**

1. *Obtain correct size by measuring the crown of the head*
Avoir la bonne grandeur en mesurant le sommet de la tête
2. *Check there is no side to side movement*
Vérifier qu'il n'y ait pas de déplacement d'un côté à l'autre
3. *Tighten strap securely*
Serrer solidement la jugulaire
4. *With head forward, attempt to pull up back of helmet to ensure helmet cannot be removed this way*
Tête en avant, essayer de soulever le casque pour s'assurer qu'il ne peut pas être enlevé de cette façon



5. *Check ability to see clearly over shoulder*
Vérifier si vous pouvez voir clairement par-dessus l'épaule
6. *Make sure nothing impedes your breathing in the helmet and never cover your nose or mouth*
S'assurer que rien ne gêne votre respiration dans le casque et ne jamais couvrir le nez ou la bouche
7. *Never wind scarf around neck so that air is stopped from entering the helmet. Never wear scarf under the retention strap*
Ne jamais enrouler une écharpe autour du cou, car cela empêche l'air d'entrer dans le casque. Ne jamais porter d'écharpe sous la jugulaire
8. *Ensure that visor can be opened with one gloved hand*
S'assurer que la visière peut être ouverte avec une main gantée
9. *Satisfy yourself that the back of your helmet is designed to protect your neck*
S'assurer que l'arrière de votre casque a une forme telle qu'il vous protège la nuque
10. *Always buy the best you can afford*
Toujours acheter le meilleur que vous pouvez vous offrir



**FEDERATION INTERNATIONALE
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