



APPROVAL PROTOCOL
FOR FRAMES AND FORKS

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1. INTRODUCTION

The approval procedure for the development of new generation bicycle frames and forks implemented by the UCI comes into force on 1 January 2011 in accordance with article 1.3.001bis of the UCI Regulations (Part 1: General organisation of cycling as a sport) which states:

“Each licence holder shall ensure that the equipment he uses on the occasion of road, track or cyclo-cross events shall be approved by the UCI according to the specifications of Approval Protocols in force and available on the UCI website. (article introduced on 1.01.11)”.

From this date, all new frames and forks used by licence holders in road, track and cyclo-cross events must be approved on the basis of this Protocol.

Approval by the UCI certifies that the new equipment meets the shape requirements set out in the UCI regulations.

However, the frames and forks approval by the UCI does not certify the safety of the equipment which must meet the applicable official quality and safety standards, in accordance with article 1.3.002 of the UCI regulations.

During the transition stage, this procedure does not apply to frames and forks which, on 1 January 2011, are:

- already manufactured
- on the market
- already at the production stage.

Frames and forks which have already been available on the market during 2009 and 2010 can be approved under the present procedure at the manufacturer’s request.

The names of the approved models of frames and forks, together with the name of the manufacturer and the date of the approval are added to the register of approved models available from the UCI website.

All manufacturers must comply with article 1.3.007 of the UCI Regulations when distributing a new model after approval. The new model must be available on market at the time of its use in events on UCI calendars as described in the article:

Preamble
Bicycles shall comply with the spirit and principle of cycling as a sport. The spirit presupposes that cyclists will compete in competitions on an equal footing. The principle asserts the primacy of man over machine.

Type
Bicycles and their accessories shall be of a type that is sold for use by anyone practising cycling as a sport. The use of equipment designed especially for the attainment of a particular performance (record or other) shall be not authorised.”

This approval procedure is intended to improve and simplify various aspects of competitive cycling. It offers the following benefits:

- Manufacturers are informed about the regulations in force before starting a production run of parts. The protocol facilitates and encourages the exchange of information between the manufacturer and the UCI, while guaranteeing the confidentiality of information by OpenTrust®, the European leader in information security solutions.
- The approval protocol offers an optimised approach and service to allow new equipment to be brought to market as quickly as possible.
- The labelling of frames and forks brings added value to the newly approved equipment.
- The approval offers reassurance to riders and future customers that the model complies with the regulations in force.
- The use of an approved frame authorises the licence holder to take part in any road, track or cyclo-cross event.
- The systematic verification of frames and forks during their development helps to reduce and facilitate the checks to be carried out by the commissaires before an event.
- The approval allows the manufacturer to avoid having his equipment rejected at the start of an event. Arguments about the compliance of new equipment are avoided.

The main objectives of the implementation of these approvals are, and will remain, that of assuring riders that the equipment used complies with UCI regulations and improving communication with manufacturers.

Any questions on the UCI Approval Protocol for frames and forks should be directed to approval@uci.ch.

2. CONFIDENTIALITY

2.1 INTELLECTUAL PROPERTY

All intellectual property rights relating to plans, drawings, designs, brands, models or other documents submitted to the UCI by the manufacturer shall remain the exclusive property of the manufacturer.

2.2 CONFIDENTIALITY RULES

- A.** The UCI accepts the strictly confidential nature of all data submitted by the manufacturer in the course of the present procedure. At the manufacturer's request, a written undertaking of confidentiality can be obtained from the UCI.
- B.** The UCI declares and acknowledges that confidential data belongs solely to its owner.
- C.** All data, documents, products, specifications, plans, drawings or other information submitted orally, in writing or by any other means by the manufacturer to the UCI which are noted as being confidential shall be considered to be confidential. Confidential information shall not include:
 - Information which the UCI already possessed or was aware of before its submission.
 - Information which is or becomes common knowledge to the business world and the public, at the time of submission or subsequently, other than through the fault or negligence of the UCI.
 - Information which is received from a third party in a legitimate manner.
 - Information for which the use or publication has been authorised by the manufacturer.
- D.** The UCI shall keep confidential all documents and information that comes to its attention under any circumstances whatsoever, concerning the activities of the other party.
- E.** The UCI takes meticulous care of confidential information and certifies that it uses this information exclusively in order to meet its obligations in the course of the execution of this protocol.
- F.** The UCI shall take all appropriate measures from both an organisational and practical point of view to avoid the illegal publication of confidential information. It shall restrict information to what is strictly required and shall in particular ensure that its staff and third parties associated with the implementation of the procedure are also subject to an equivalent duty of confidentiality.

G. All exchanges of data shall make use of an encrypted network known as OpenTrust® (see OpenTrust® Users' Guide). The UCI shall set up an OpenTrust® account for the manufacturer as soon as the application form is received.

H. The obligation of confidentiality shall apply for as long as the data remains confidential.

I. The UCI undertakes to return or destroy confidential information at the request of the manufacturer.

J. The marketing of the product shall annul the confidentiality of the relevant information, although the UCI undertakes to keep information as confidential as possible. Professional exchanges carried out during the course of the validation procedure shall however remain confidential.

2.3 CONFIDENTIALITY WITH OPENTRUST®

In order to guarantee that information is transmitted securely throughout the approval procedure, exchanges of files between manufacturers and the UCI are carried out over an encrypted network set up by OpenTrust®. Information exchanged in this way is protected and this solution ensures encryption and secure reception of all files with proof of sending.

OpenTrust® allows users to access their inboxes in a secure manner using any device from any location. OpenTrust® is already used by many major organisations, including the post office, the Swiss army, the National Bank of Belgium, Renault, Alstom, Michelin and others.

The system is intuitive to use and does not require any specialist training. The user interface is identical to a traditional email inbox and can be accessed at <https://uci-mft.taas.opentrust.com/zephyr>.

When an Application Form for a new "one-piece" moulded type frame is received, the UCI creates a new OpenTrust® account for the manufacturer using the email address provided on the form. It then sends details of the file transmission procedure to be followed by post, together with the personal password required to exchange messages.

In case of submission of an assembled "tubular" type model, the exchange of files is also secured by OpenTrust®, but on the basis of tickets without the opening of a personal account. This process ensures the same confidentiality as the sent files from an account.

Both parties receive automatic notification in their normal email inbox when a message is received and when a message is read by the recipient, thus ensuring both the correct transmission and traceability of data. Manufacturers can send files of up to 100 MB thus ensuring that the exchange of information is not restricted.

Everything that you need to know about using OpenTrust® can be found in the OpenTrust® Users' Guide available from the UCI website. Files and information sent to the UCI by manufacturers during the approval procedure are stored on a secure UCI server used for this purpose only.

3. UCI TECHNICAL REGULATIONS FOR FRAME AND FORKS

3.1 GENERAL PROVISIONS

3.1.1 Principes

- ▶ **1.3.001** Each licence holder shall ensure that his equipment (bicycle with accessories and other devices fitted, headgear, clothing, etc.) does not, by virtue of its quality, materials or design, constitute any danger to himself or to others.
- ▶ **1.3.001bis** Each licence holder shall ensure that the equipment he uses on the occasion of road, track or cyclo-cross events shall be approved by the UCI according to the specifications of Approval Protocols in force and available on the UCI website.
(article introduced on 1.01.11)
- ▶ **1.3.002** The UCI shall not be liable for any consequences deriving from the choice of the equipment used by licence holders, nor for any defects it may have or its non-compliance. Equipment used must meet applicable official quality and safety standards.
(text modified on 1.04.07)
- ▶ **1.3.003** In no event shall the fact that a rider has been able to take part in the competition give rise to liability on the part of the UCI; checks on equipment that may be carried out by the commissaires or by an agent or a body of the UCI being limited to compliance with purely sporting requirements. Where required, checks on equipment and material may be carried out, after the race, at the request of the president of the commissaires' panel, or that of an agent or body of the UCI.
(text modified on 1.01.05; 1.07.10)

3.1.2 Technical innovations

- ▶ **1.3.004** Except in mountain bike racing, no technical innovation regarding anything used, worn or carried by any rider or license holder during a competition (bicycles, equipment mounted on them, accessories, helmets, clothing, means of communication, etc.) may be used until approved by the UCI executive bureau. Requests for approval shall be submitted to the UCI before June 30th of any year, accompanied by all necessary documentation. If accepted, the innovation shall be permitted only as from January 1st of the following year.
Acceptance shall refer solely to the fact that the innovation is acceptable from a sporting point of view. There is no technical innovation in the sense of the present article if the innovation entirely falls within the specifications foreseen in the regulations.
(text modified on 1.01.02; 1.01.04; 1.01.05)

- ▶ **1.3.005** If at the start of a competition or stage the commissaires' panel considers that a rider arrives with a technical innovation not yet accepted by the UCI, it shall refuse to permit the rider to start with such an innovation. In the event of use in competition, the rider shall automatically be expelled from the competition or disqualified. There shall be no right to appeal against the decision of the commissaire's panel.
If this technical innovation is not noticed or sanctioned by the commissaire's panel, the UCI disciplinary commission shall order the disqualification. The UCI shall refer to the disciplinary commission, either automatically or at the request of all interested. The disciplinary commission only applies sanctions after having received the opinion of the equipment commission. In out of competition situations, the UCI shall decide whether an item should be considered a technical innovation and whether the procedure provided for in article 1.3.004 is to be followed.
(text modified on 1.01.05)

3.2 BICYCLES

3.2.1 Préambule

Bicycles shall comply with the spirit and principle of cycling as a sport. The spirit presupposes that cyclists will compete in competitions on an equal footing. The principle asserts the primacy of man over machine.

3.2.2 Principles

Definition

- ▶ **1.3.006** The bicycle is a vehicle with two wheels of equal diameter. The front wheel shall be steerable; the rear wheel shall be driven through a system comprising pedals and a chain.

Type

- ▶ **1.3.007** Bicycles and their accessories shall be of a type that is sold for use by anyone practising cycling as a sport. The use of equipment designed especially for the attainment of a particular performance (record or other) shall be not authorised.

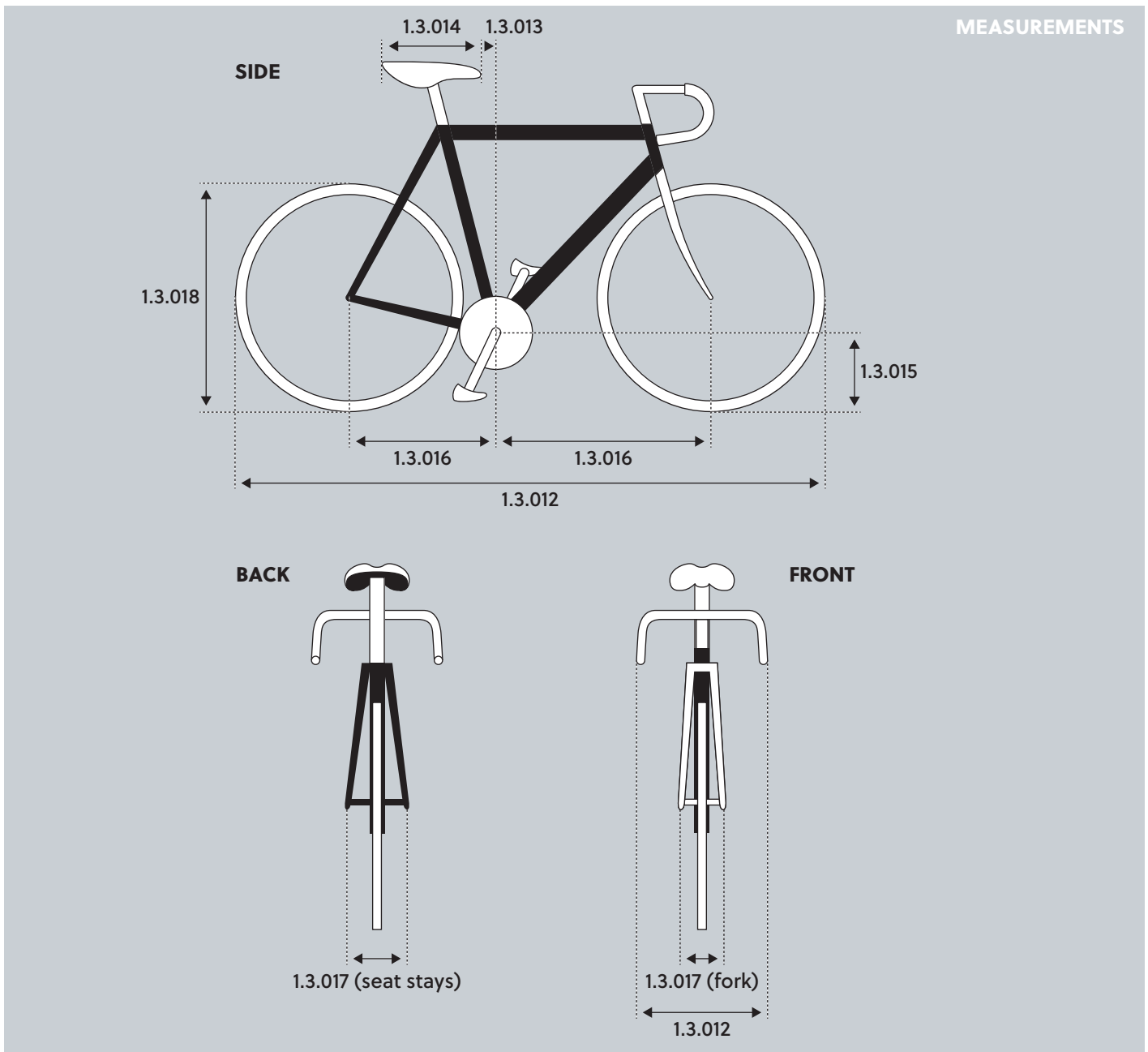
3.2.3 Technical specifications

Except where stated to the contrary, the following technical specifications shall apply to bicycles used in road, track and cyclo-cross racing.

The specific characteristics of bicycles used in mountain bike, BMX, trials, indoor cycling and paracycling for riders with disabilities are set out in the part regulating the discipline in question.

(text modified on 1.01.05; 25.06.07)

► **1.3.011 a) Measurements** (see diagram «Measurements»)



► **1.3.012** A bicycle shall not measure more than 185cm in length and 50cm in width overall. A tandem shall not measure more than 270cm in length and 50cm in width overall.

► **1.3.015** The distance between the bottom bracket spindle and the ground shall be between 24cm minimum and maximum 30cm.

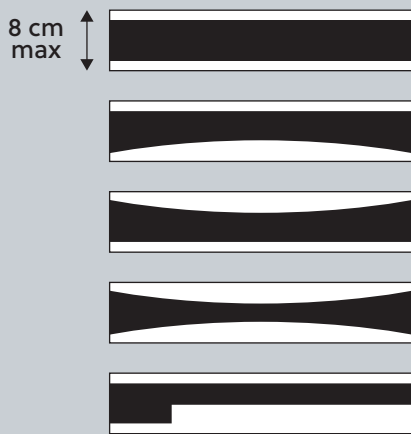
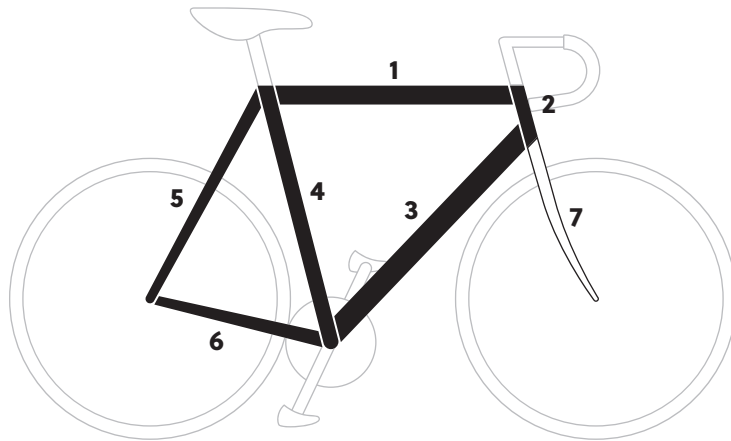
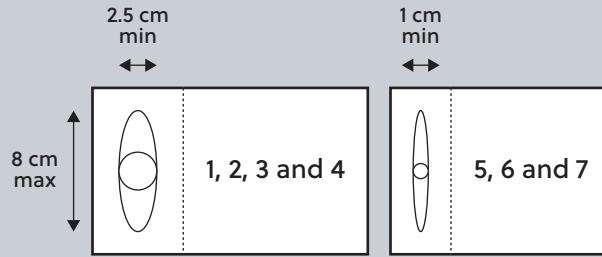
► **1.3.016** The distance between the vertical passing through the bottom bracket spindle and the front wheel spindle shall be between 54cm minimum and 65cm maximum (1).

The distance between the vertical passing through the bottom bracket spindle and the rear wheel spindle shall be between 35cm minimum and maximum 50cm.

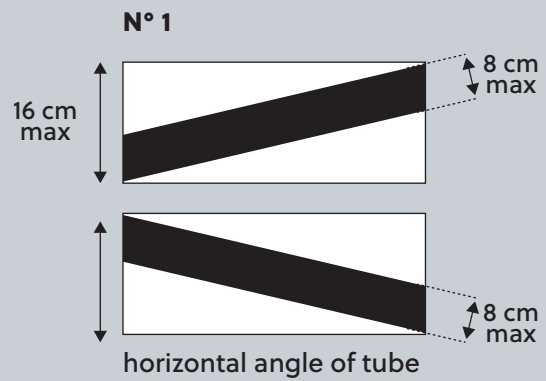
► **1.3.017** The distance between the internal extremities of the front forks shall not exceed 10.5cm; the distance between the internal extremities of the rear triangle shall not exceed 13.5cm.

SHAPE 1

CROSS SECTIONS



straight or stretched
tubular elements



horizontal angle of tube



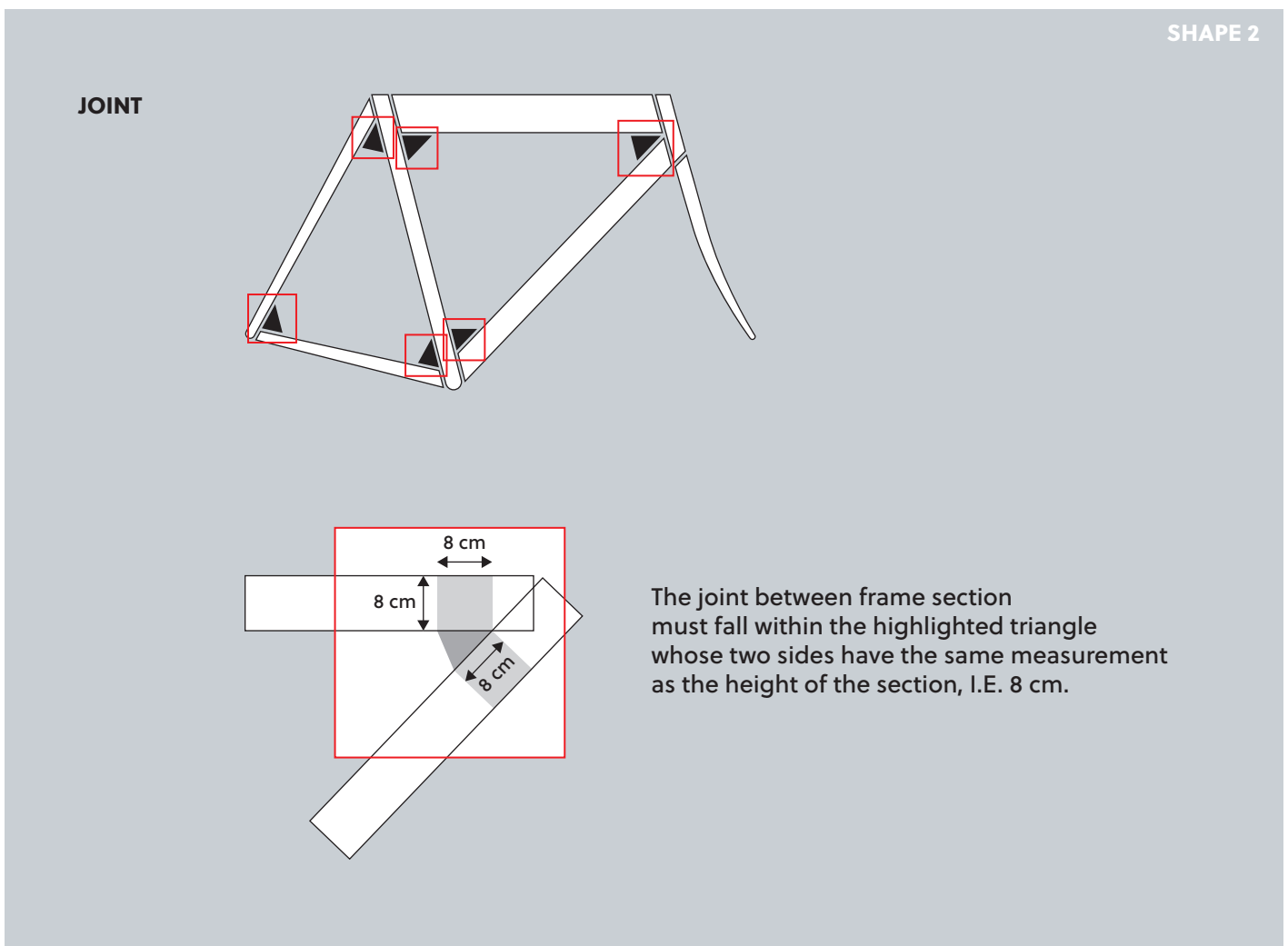
the line of each segment
shall always be straight

► **1.3.020 c) Configuration**

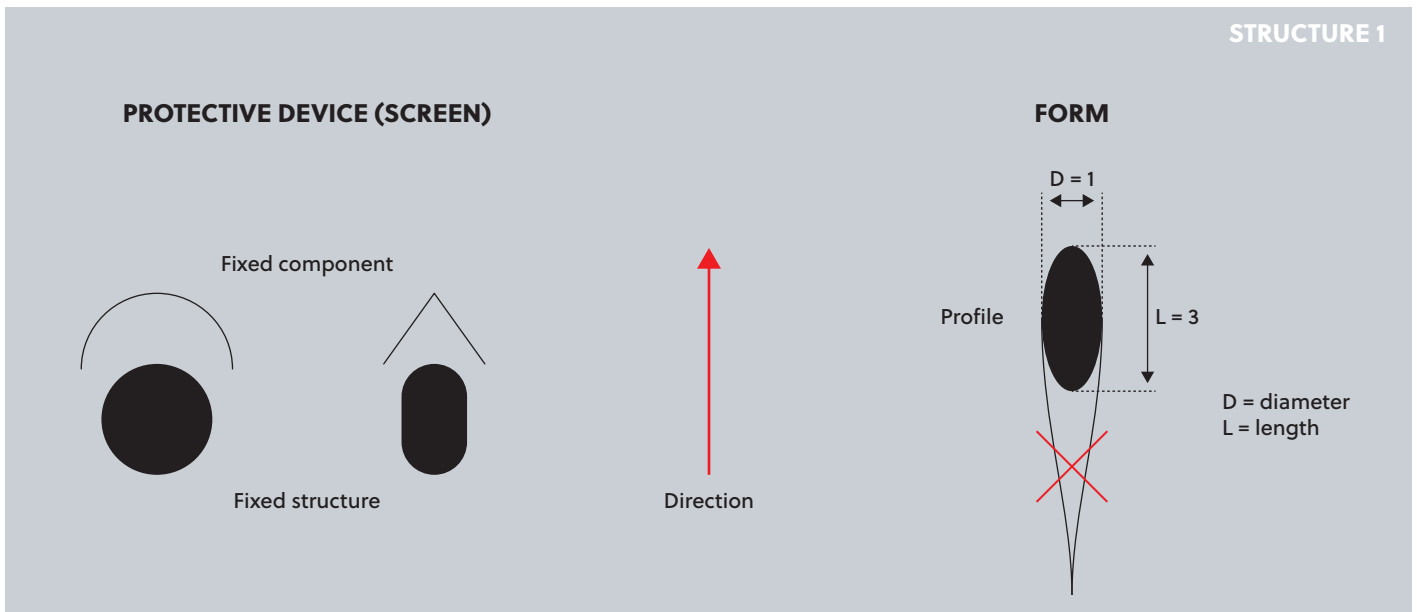
For road competitions other than time trials and for cyclo-cross competitions, the frame of the bicycle shall be of a traditional pattern, i.e. built around a main triangle. It shall be constructed of straight or tapered tubular elements (which may be round, oval, flattened, teardrop shaped or otherwise in crosssection) such that the form of each element encloses a straight line. The elements of the frame shall be laid out such that the joining points shall follow the following pattern: the top tube (1) connects the top of the head tube (2) to the top of the seat tube (4); the seat tube (from which the seat post shall extend) shall connect to the bottom bracket shell; the down tube (3) shall connect the bottom bracket shell to the bottom of the head tube. The rear triangles shall be formed by the chain stays (6), the seat stays (5) and the seat tube (4) with the seat stays anchored to the seat tube at points falling within the limits laid down for the slope of the top tube. The maximum height of the elements shall be 8 cm and the minimum thickness 2.5 cm. The minimum thickness shall be reduced to 1 cm for the chain stays

(6) and the seat stays (5). The minimum thickness of the elements of the front fork shall be 1 cm; these may be straight or curved (7). (See diagram «Shape (1)»). The top tube may slope, provided that this element fits within a horizontal template defined by a maximum height of 16 cm and a minimum thickness of 2.5 cm. *(text modified on 7.06.00; 1.01.05)*

► **1.3.021** For road time trials and for track competitions, the elements of the bicycle frame may be tubular or solid, assembled or cast in a single piece in any form (including arches, cradles, beams or any other). These elements, including the bottom bracket shell, shall fit within a template of the «triangular form» defined in article 1.3.020. (See diagram «Shape (2)»). *(text modified on 7.06.00; 1.01.05)*

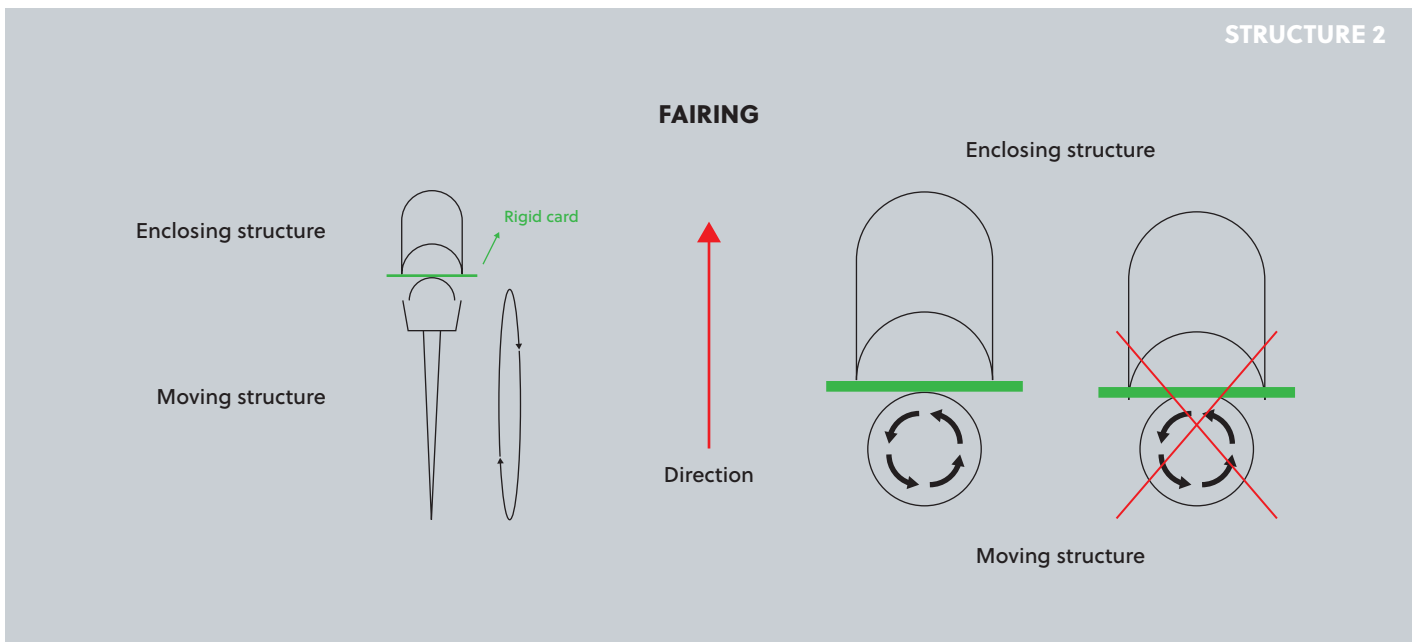


- ▶ **1.3.024** Any device, added or blended into the structure, that is destined to decrease, or which has the effect of decreasing, resistance to air penetration or artificially to accelerate propulsion, such as a protective screen, fuselage form fairing or the like, shall be prohibited.



A protective screen shall be defined as a fixed component that serves as a windscreen or windbreak designed to protect another fixed element of the bicycle in order to reduce its wind resistance.

A fuselage form shall be defined as an extension or streamlining of a section. This shall be tolerated as long as the ratio between the length (L) and the diameter (D) does not exceed 3.



Fairing shall be defined as the use or adaptation of a component of the bicycle in such a fashion that it encloses a moving part of the bicycle such as the wheels

or the chainset. Therefore it should be possible to pass a rigid card (like a credit card) between the fixed structure and the moving part.

4. PRACTICAL GUIDE AND CLARIFICATIONS OF THE REGULATIONS

As the summit organisation of world cycle sport, the International Cycling Union (UCI) is the guarantor of the proper application of ethical and sporting regulations. The UCI Regulations assert the primacy of man over machine. Observance of the regulations by all the parties involved guarantees sporting fairness and safety during competition. This chapter does not replace Articles 1.3.001 to 1.3.025 of the UCI Regulations, but instead complements them and illustrates the technical rules defined therein. The objective of this document is to offer an explanation in order to facilitate understanding and application of the Regulations by international commissaires, teams and manufacturers. Only the UCI can extend the clarification when needed. This chapter applies to equipment used in the following three disciplines: road events, track events and cyclo-cross. Each discipline has its own technical characteristics and each may have variants depending on the type of event (*see Articles 1.3.013, 018, 020, 021, 022, 023 and 025 of the UCI Regulations*).

This chapter has been drawn up with the invaluable assistance of manufacturers, teams and international commissaires under the supervision of Jean Wauthier, UCI Technical Advisor. The UCI Equipment Unit may be contacted by anyone seeking further information on the Technical Regulations. The Regulations can be consulted at the UCI website at www.uci.ch; click on the "Rules" heading. All technical innovations are subject to the application of Article 1.3.004.

4.1 COMMENTS ON THE PRINCIPLES (ARTICLES 1.3.006 TO 1.3.010)

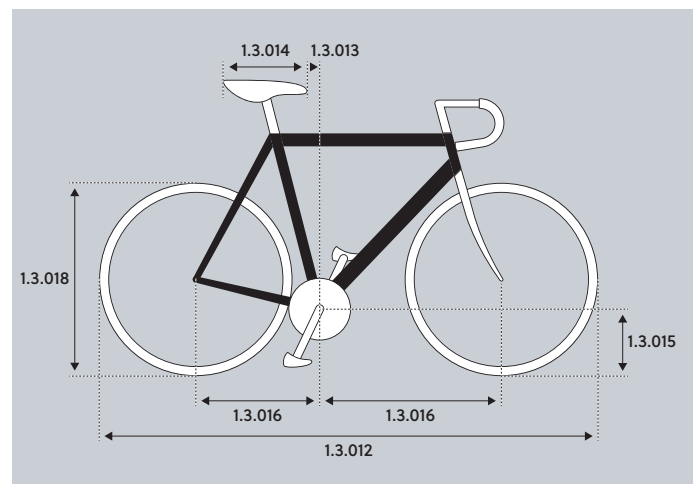
The bicycle is a vehicle with two wheels of equal diameter: the front wheel shall be steerable; the rear wheel shall be driven.

The bicycle must be in "working order" with a steering system acting on the steerable wheel and a propulsion system acting on the driven wheel by means of a circular movement through a chainset (using a chain) comprising one or more chainwheels and two cranks, arranged opposite each other, one as an extension of the other, in the same plane. Bicycles used in road events must be fitted with an efficient braking system that acts on both wheels (either simultaneously or independently) operated by two brake levers. The use of a fixed gear in competition is prohibited. The bicycle must be accessible to all participants. It must be marketed (i.e. available for sale on the market). Prototypes and the use of equipment specially designed for a particular athlete, event or performance is prohibited. "Special design" means a bicycle with a technical added value when compared with other equipment.

The bicycle must be designed and constructed to the highest professional standards in accordance with official quality and safety criteria in a manner that respects the UCI's Technical Regulations, allowing the rider to adopt, without difficulty or risk, the required positions (support points, tip of saddle behind bottom bracket, position of hands on the handlebars, overall rider position).

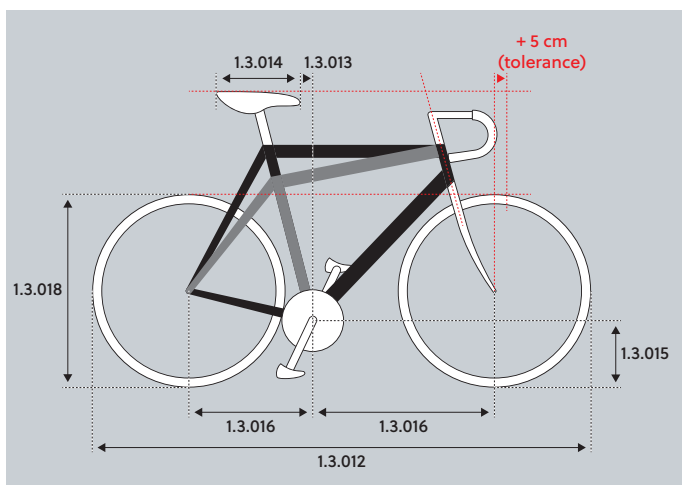
4.2 WITH REGARD TO MEASUREMENTS (ARTICLES 1.3.011 TO 1.3.018)

Bicycles shall comply with the measurements described in the appropriate Articles :



4.3 COMMENTS ON ARTICLE 1.3.020

For massed-start road races and cyclo-cross, the frame elements (arranged as shown in the diagram below) shall be tubular without excessive curvature (a straight line along the element's longitudinal axis must remain inside the element). The elements shall have a maximum transverse dimension of 8 cm and a minimum transverse dimension of 2.5 cm (reduced to 1 cm for the seat stays, chain stays and forks). If the seat tube is extended so that it replaces the seat post, the anchorage point with the top tube is considered for the purposes of the horizontal template of the "Shape 1" diagram shown in article 1.3.020.



4.4 COMMENTS ON ARTICLE 1.3.021

For time trials on the road and track competitions the elements making up the frame are not restricted provided they fit freely inside a defined template (see regulations) and comply with the 1:3 ratio described above (comments on Article 1.3.020).

If the seat tube is extended so that it replaces the seat post, the template is extended in the same direction. For offset fork designs, the pivoting part must be contained within the template of the head tube. The bicycle must be designed and adjusted in such a manner that the rider can adopt a regulatory position as defined by Article 1.3.023.

4.5 COMMENTS ON ARTICLE 1.3.024

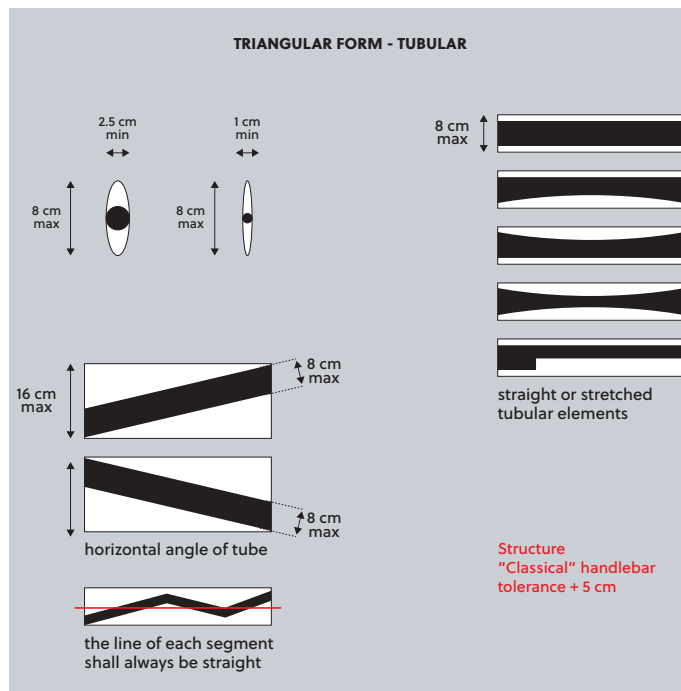
The rule 1.3.024 (ratio 1:3) applies in this respect as a regulatory consideration.

Examples

- ▶ When using the maximum transverse dimension authorised for an element, namely 8 cm, the associated minimum transverse dimension is $8/3 = 2.66$ cm;

- ▶ When using the minimum transverse dimension authorised for an element, namely 2.5 cm, the associated maximum transverse dimension is $2.5 \times 3 = 7.50$ cm;
- ▶ When using the minimum transverse dimension authorised for an element, namely 1.0 cm, the associated maximum transverse dimension is $1.0 \times 3 = 3.0$ cm;
- ▶ For all intermediate options, the maximum to minimum transverse dimension ratio must not exceed 3.
- ▶ The minimum possible section is 2.5 cm (in all directions).
- ▶ The application is the same for the seat stays, chain stays and forks.

The minimum possible section is 1.0 cm (in all directions). A tolerance of 1 mm is accepted for frame elements, taking into account the thickness of the surface coating (paintwork and livery).



4.6 COMMENTS ON ARTICLE 1.3.024

Protective screens, aerodynamic shapes, fairings or any other device that is added or forms part of the structure, and that is destined or has the effect of reducing wind resistance, are prohibited.

Article 1.3.024 establishes that aerodynamic assemblies and protuberances on the head tube are prohibited. The 1:3 ratio applies to the shapes of bicycle elements, with the exception of moving parts (wheels and chainsets) and the saddle. The pedal crank is not subject to the regulation, but its transverse dimension is restricted to 8 cm.

The regulation does not apply to the pedals, front or rear derailleur bodies or wheel brake mechanisms. The regulation does, however, apply to all elements making up the frame architecture as well as frame accessories (stem, handlebars, handlebar extension, seat post).

However, the regulation on the subject of the shape of bicycle elements (1:3 ratio) does not exempt manufacturers from complying with the official «racing bicycle» standards when concerning uncovered projections (must be rounded for safety). As for brake levers, gear levers, bottle cages and other items (not subject to the 1:3 regulation), «knife-edge profile» shapes are not allowed (see uncovered projections - EN and similar standards).

5. APPROVAL PROCEDURE

5.1 GENERAL

5.1.1 Procedure

The UCI Approval Protocol for Frames and Forks comes into force on 1 January 2011. The approval procedure consists of several stages which are detailed in this section.

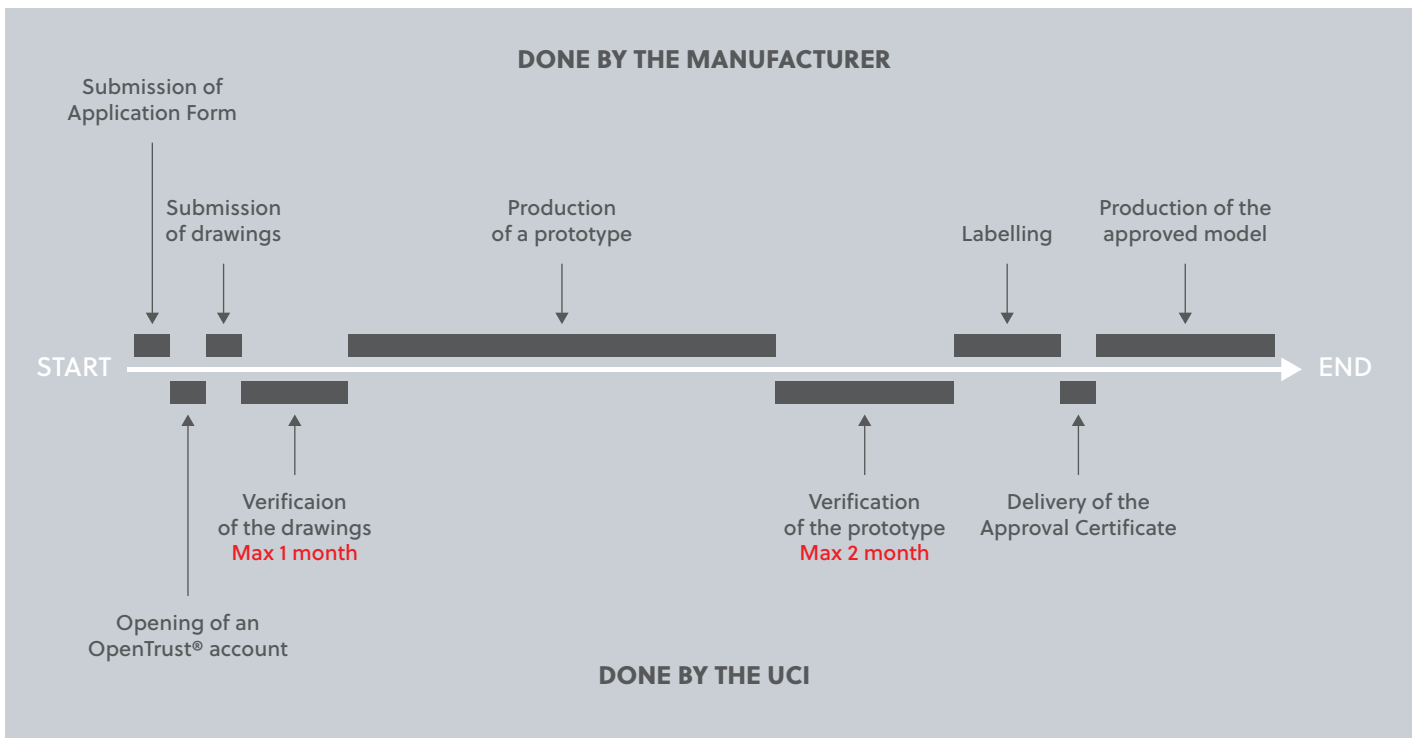
The approval procedure starts with the submission of the Application Form and concludes when the UCI issues the Approval Certificate to the manufacturer or when the manufacturer withdraws the application.

Before the Application Form is submitted, the UCI encourages manufacturers to let them know about their ideas and concepts, in order to avoid any clear breaches of the regulations, to allow a model that complies with

the requirements to be designed without delay and to avoid unexpected issues when the technical drawings are checked.

The diagram below represents the schedule for the approval of new models of frames and forks where no deadline for the correction of technical drawings or samples is required.

The maximum duration of the procedure by the UCI to check technical drawings and sample products is three months, but this is reduced to the minimum achievable. The manufacturer has a period of ten months after the Application Form is sent in to submit all the technical drawings.



The maximum duration of the procedure by the UCI to check technical drawings and sample products is three months, but this is reduced to the minimum achievable. These time limits are scrupulously guaranteed for the opening of an approval procedure for a new model of frame and fork.

Models produced in 2009 and 2010 can also receive the label, but the time limits mentioned above cannot be guaranteed. The models will be checked and approved according to availability, in the order in which the Application Forms are received. However the UCI will endeavour to respect the time limits as far as possible.

The manufacturer has a period of twelve months after the Application Form is sent in to submit all the technical drawings.

5.1.2 Models subject to approval

Under article 1.3.001bis of the UCI regulations, the models which are subject to the approval procedure are:

- all new models of frames and forks used by licence holders in road, track or cyclo-cross events,
- all models of frames and forks under development on 1 January 2011 which had not reached the production stage at that date,
- any changes made to the geometry of existing models after 1 January 2011.

Only “one-piece” type models used during time trial and track events which require a mould during their manufacturing process are subject to the full approval procedure. This procedure includes the opening of an OpenTrust® account for a secure exchange of confidential documents, the checking of all 2D and 3D technical drawings for each size, the dimensional verification of the first standard-sized prototype with the possibility to request that other sizes be checked and labelling.

The “one-piece” moulded type models used during massed start road races and cyclo-cross events, as well as all moulded “one-piece” models with backdated approval are subject to an intermediate procedure. This procedure includes the opening of an OpenTrust® account for a secure exchange of confidential documents, the checking of all 2D and 3D technical plans for each size, the possibility to request a dimensional verification of certain sizes and labelling.

All other models, assembled by welding, brazing, gluing or other technique, which are defined as “tubular”, follow a simplified approval procedure. This procedure includes solely the submission of the Application Form, secure exchange of confidential documents using OpenTrust® on the basis of tickets, the checks of drawings or plans of each size and labelling.

The choice of the procedure is determined by information provided in the Type of bicycle and Manufacturing Process fields of the Application Form.

Frames and forks available on the market during 2009 and 2010 can be approved under the intermediate procedure.

Frames or forks from a single manufacturer that are of a perfectly identical shape which differ only in name constitute a single model for the purposes of the present protocol. In this instance each name must be specified on the Application Form.

If the manufacturer changes the name of a previously approved model, the manufacturer must provide the UCI with a signed declaration that the new name corresponds specifically to the approved model.

Models from a given manufacturer are considered different if they are specific to different disciplines (road, time trial, track, cyclo-cross, etc.) or if the general geometry changes to the extent that it cannot be confused with a size difference.

Frames and forks submitted for approval under the same name and intended for the same discipline which differ only in size or weight shall be considered to be the same model.

Models in mass production or made to order must all follow the UCI approval procedure.

The maximum number of sizes for a given model is 8 (eight). Additional sizes beyond this is possible, however this requires an increase in the cost of the procedure per additional size, according to the Section 7.

Changes to the geometry of an approved product of any type whatsoever are forbidden without prior agreement from the UCI. Any geometry changes made to an approved product must be submitted to a new approval procedure.

5.2 SUBMISSION OF THE APPLICATION FORM

Whether the approval procedure is full, intermediate or simplified, it always starts with the submission of the Application Form that can be downloaded from the UCI website.

The Application Form must be submitted to the UCI for the approval of each new model of frame and forks or in the event of any kind of alteration to a previously approved product.

The manufacturer must complete the form clearly, completely and accurately. It must describe the product and its specifications in detail and provide contact information.

The email address given on the Application Form must remain valid throughout the Approval Procedure for Frames and Forks in order to ensure that data can be exchanged using OpenTrust®.

By signing the form the manufacturer agrees to comply with all applicable UCI regulations and to follow the UCI’s instructions at each stage of the approval procedure.

The signature must be that of a signatory authorised to make binding agreements on behalf of the company. Forms submitted without the signature of the manufacturer’s representative are not accepted.

Additional information may be requested from the manufacturer before the start of the approval procedure.

The UCI sends acknowledgement of receipt of the form to the manufacturer and gives notification that the approval procedure has started. An invoice for contributions to the costs of administration and appraisal, as defined in Section 7, is sent to the manufacturer, payable within 30 days.

Once the application form has been accepted and the contribution to administration and appraisal costs paid into the UCI account by the manufacturer, the approval procedure continues with the submission of technical drawings.

5.3 SUBMISSION OF TECHNICAL DRAWINGS

5.3.1 Full and intermediate procedure

To guarantee the confidentiality of data, files are exchanged using the OpenTrust® platform from a personal account as described in the OpenTrust® Users' Guide.

The submission of technical drawings for different sizes of the same model, whatever the number of sizes, may be staggered over up to 12 (twelve) months from the date that the OpenTrust® account is set up, provided that not more than eight sizes are registered.

Technical drawings sent to the UCI after the expiry of the twelve-month period are not taken into account and require a new approval procedure.

During this period, plans previously submitted and validated may still be amended for subsequent revalidation. The technical drawings for new models are to be submitted to the UCI in accordance with the following recommendations:

- ▷ sectional views of the frame, forks and the frame/forks assembly in 1:1 scale fitting into the template defined in Articles 1.3.020 and 1.3.021 with all the measurements required for the verification of compliance with the Articles of UCI Regulations,
- ▷ profile views of forks, seatstays and chainstays with measurements in order to be able to check the distance between the internal extremities,
- ▷ 3 sectional views with measurements of the sections of all tubes, seatstays, forks and chainstays at $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$ distances,
- ▷ perspective views of the frame with forks showing the general appearance.

The UCI will only proceed with the examination of technical drawings after it has received all the technical drawings specified above.

All the files sent must be in PDF and STEP formats (or SolidWorks formats), in order to have a printable version and another version usable with computer-aided design (CAD) software. The 3D version is also used to check compliance of the physical dimensions of an actual prototype.

Note: the uncertainties of production must be taken into account when drafting up the technical drawings in order to avoid the final prototype failing to comply with UCI regulations.

5.3.2 Simplified approval procedure

To guarantee the confidentiality of data, files are exchanged using the OpenTrust® platform on the basis of tickets, as described in the OpenTrust® Users' Guide.

The drawings for all sizes of new models are to be submitted to the UCI in accordance with the following recommendations:

- ▷ sectional views of the frame/forks assembly with all the measurements required for the verification of compliance with the Articles of UCI regulations,
- ▷ profile views of forks, seatstays and chainstays with measurements in order to be able to check the distance between the internal extremities,
- ▷ one or two sectional views with measurements of the sections of all tubes, seatstays, forks and chainstays,
- ▷ perspective views of the frame with forks or a photo showing the general appearance.

The files sent can be technical drawings, diagrams, sketches or drawings as precise and detailed as possible with measurements.

The UCI will only proceed with the examination of technical drawings after it has received all the technical drawings specified above.

The UCI reserves the right to ask for more information before accepting a model.

5.4 ACCEPTANCE OF TECHNICAL DRAWINGS BY THE UCI

The UCI Technological Coordinator checks that the drawings comply with UCI regulations.

In case of a new model procedure, no later than thirty days from the receipt of the technical drawings from the manufacturer, the UCI shall inform the manufacturer of the following decisions:

- ▷ If the drawings meet all the required conditions, a Control Report (intermediate) accepting the model is sent to the manufacturer who is authorised to move on to the next stage of the procedure.
- ▷ If a technical innovation is observed, article 1.3.004 applies. An Equipment Commission is convened and the manufacturer is informed of decisions taken by the UCI regarding the specific case.
- ▷ If there are one or more failures to comply with the regulations, a Control Report (intermediate) is sent to the manufacturer with the changes to be carried out. A full set of corrected drawings must be submitted to the UCI for validation within three months of the date of receipt of the report.

A report is only sent to the manufacturer when the contributions to the costs of administration and appraisal, as defined in Section 7, have been paid to the UCI.

If the simplified approval procedure applies, no prototype is required for checking and the following next stage is that described in Section 5.8.

5.5 PRODUCTION AND DESPATCH TO THE UCI OF A FULL SCALE PROTOTYPE

Following the acceptance of technical drawings by the UCI as per Section 5.4, the manufacturer is free to produce either a single copy of its new model at actual size, or to start mass production of its new model.

If the manufacturer chooses to move directly to the production stage, it shall bear all risks relating to a rejection if the production model fails to conform to the approved technical drawings.

In any event, the full-size prototype that the manufacturer sends the UCI for approval must come from the production line or at least from the moulds and equipment which will be used for the mass production of models.

The prototype must be as faithful as possible a reproduction of the technical drawings previously accepted by the UCI. The technical drawings of models must take account of possible production variations and errors in order to produce parts which meticulously comply with UCI regulations.

In case of models corresponding to the full procedure, the manufacturer sends the UCI one prototype of the standard size for every model, corresponding to the measurements previously accepted, for approval. The UCI can request that other sizes be checked if needed. The manufacturer is responsible for the costs of shipping. The UCI can ask the manufacturer to send one or more prototypes for the dimensional check of some sizes in case of intermediate procedure. The manufacturer is responsible for the costs of shipping.

5.6 VERIFICATION OF THE FULL-SCALE PROTOTYPE

The decision to approve a "one-piece" moulded type model is taken only after verification by the UCI Technological Coordinator that each size of each model conforms to the technical drawings previously approved.

Technical checks and the examination of prototypes is carried out in conjunction with independent experts (in particular the Ecole Polytechnique Fédéral de Lausanne/EPFL). The UCI has signed a confidentiality agreement with these experts.

For the moment, the procedure is centralized at the UCI for confidentiality reasons. Only the UCI collaborators go to the EPFL to carry out three-dimensional measurements of the prototypes. No person external to the UCI has access to the confidential information from the manufacturers.

In practice, an extremely precise computerised three-dimensional measuring machine is used to obtain the coordinates of the points measured (sensed) for a part in order to be able to draw its contours in 3 dimensions.

These coordinates allow the compliance of the dimensions and measurements to be verified on the basis of the UCI Regulations. A variation of ± 0.5 millimetre from

the technical drawings is tolerated during the dimensional check of the prototypes.

It is possible to measure the frame and forks, whether or not they are assembled. The elements are selected and measured by the computerised measuring machine (CMM) before being digitally reconstituted using a Computer-Aided Design (CAD) programme.

Once the prototype has been measured, the CAD software makes it possible to superimpose the accepted technical drawings on the actual structure to analyse its compliance. It is also possible to incorporate volumetric templates in order to ensure that the minimal and maximum widths and the 1:3 rule are properly respected.

A Control Report is sent to the manufacturer within two months of the receipt of the models concerned. However, the average response time by the UCI should be considerably shorter than that. Any non-compliant elements are described in the report.

The measuring equipment will be also used at certain events on the UCI calendars in order to check that labelled frames and forks correspond to the registered models.

5.7 VALIDATION OF THE PROTOTYPE

The examples examined, accompanied by a Control Report are returned to the manufacturer. The manufacturer is responsible for the costs of shipping and must state the carrier used and their account number to allow shipping (DHL, TNT, etc.).

If the prototype complies with the accepted technical drawings, the labelling of the model can start.

If the prototype does not correspond to the technical drawings previously provided, the manufacturer has six months to rectify its production method and submit a new compliant prototype to the UCI. If no correction is made within this six-month period, the procedure is cancelled and the manufacturer has to submit new documentation and start the approval procedure from the beginning.

5.8 APPLYING "UCI FRAME" LABEL

For approved models to be authorised for use in road, track or cyclo-cross events, the technical label must be fitted in accordance with the conditions described in the document entitled Applying "UCI frame" Label.

The application of the label is a key condition of the approval procedure. If the label is applied incorrectly under this protocol or the document entitled Applying "UCI frame" Label, the frame does not comply.

The "UCI frame" label consists of the "UCI frame" logo, an identification code for the model and a coded date of approval.

The application of the "UCI frame" label by the manufacturer to one of its models certifies that it is the producer of the frame and forks and that this corresponds to the

technical drawings and prototypes submitted to the UCI in the course of the approval procedure. The fixing of the "UCI frame" label by private individuals is forbidden.

The "UCI frame" label must be visible, indelible and inseparable from the frame. The manufacturer shall apply the "UCI frame" label at the same time as the branding for the model designed by the manufacturer.

The "Applying 'UCI frame' Label" document on the conditions for fixing the label as well as on the visual guidelines for the label to be affixed on the frame will be given to the manufacturer at the end of the approval procedure. The location of the label must fit within the zones allowed for the label defined in the document concerning the fixing of the label.

The location of the "UCI frame" label on the frame must be submitted to, and approved by, the UCI before it is applied to the model. The UCI shall answer queries on label positioning as soon as possible upon receipt of a request.

Only the manufacturer is permitted to re-enamel its frames and reapply the label in an identical manner and in the same location as that approved by the UCI. If the frame is re-enamelled by any party other than the manufacturer, it immediately loses its approval.

Any reproduction of all or part of the "UCI frame" label is strictly forbidden without authorisation from the UCI.

5.9 APPROVAL OF THE MODEL

The UCI sends the manufacturer an Approval Certificate (final) for each model at the end of the approval procedure.

The issuing of the Approval Certificate authorises the manufacturer to produce the approved model without further restriction other than to add the corresponding label as defined in Section 5.9 and the document entitled "Applying 'UCI frame' Label".

The names of the approved models of frames and forks, together with the manufacturer's name, the sizes checked and the date of the approval are added to the register of approved models, available from the UCI website. This list will be updated whenever new models are approved. The use of approved models is permitted in competition from the date of approval. The use of approved frames and forks remains subject to article 1.3.007.

The approval has unlimited duration. However, the manufacturer is required to inform the UCI of the end of production of an approved product.

6. CHECKS AND PENALTIES

The UCI can carry out random compliance checks of approved models at any road, track or cyclo-cross events.

If an approved model is found not to conform, approval for the model may be withdrawn from the manufacturer, unless the non-compliance results from external handling for which the manufacturer cannot be held responsible.

The UCI shall be solely responsible for the withdrawal of approval from a manufacturer, after discussions with the manufacturer in question.

Should circumstances require, the UCI may provisionally suspend the approval for a non-conforming model.

In the event that approval is withdrawn, the model is removed from the list and is no longer authorised for use in UCI road, track or cyclo-cross events.

In the event of withdrawal, the manufacturer may submit the model in question for a new approval procedure under this protocol, on condition that the model name is changed.

Furthermore, any misuse of the label or use contrary to the provisions of this protocol may be penalised by a fine of between CHF 10,000 and 100,000.

Performances carried out using non-compliant equipment are not recognised.

If a labelled model is tested and found not to conform but the manufacturer cannot be held responsible, the licence holder is immediately disqualified and an investigation into the relevant team is opened.

7. CONTRIBUTIONS TO ADMINISTRATION AND APPRAISAL COSTS

The approval procedure for frames and forks is a service that the UCI has set up for manufacturers, but also for licensed riders, teams, commissaries and the sport of cycling in general. To ensure that the approval procedure is effective and perfectly equitable, qualified personnel and specialised equipment are required.

Therefore, the implementation and proper operation of this service incurs costs that the UCI cannot bear alone. The amounts requested of manufacturers for this service are reduced to a minimum, covering only the costs generated by the approval process.

The manufacturer shall pay the UCI a contribution for the costs incurred for the administrative procedures, examinations of documentation and checks of models in accordance with the following rates:

- ▷ CHF 5,000 + VAT for each model of frame and fork submitted by the manufacturer for the full procedure for a maximum of 8 sizes.
- ▷ CHF 3,000 + VAT for each model of frame and fork submitted by the manufacturer for the intermediate procedure for a maximum of 8 sizes.
- ▷ CHF 500 + VAT for each model of frame and fork submitted by the manufacturer for the simplified procedure for a maximum of 8 sizes.
- ▷ CHF 500 + VAT for the modification of a size, the addition of an extra size over and above 8 or the addition of a size after completion of the procedure in the case of a full procedure.
- ▷ CHF 250 + VAT for the modification of a size, the addition of an extra size over and above 8 or the addition of a size after completion of the procedure in the case of an intermediate procedure.
- ▷ CHF 50 + VAT for the modification of a size, the addition of an extra size over and above 8 or the addition of a size after completion of the procedure in the case of a simplified procedure.

The sum due shall be paid into the UCI bank account by the manufacturer within 30 days of invoicing for each submission of a new model.

Any delay in payment shall without further notice incur arrears interest at the rate of 5% (five per cent) calculated from the due date.

The Control Report for the technical drawings of a model shall not be sent to a manufacturer until the contribution due has been paid.

8. LIABILITY

Within the limits of the applicable legal provisions, the UCI shall not be liable to manufacturers for damage caused during the approval procedure, for loss of income, profits, opportunities, clients, reputation or any other form of indirect damage (even if such damage was reasonably foreseeable or if the UCI had been warned of the possibility that the manufacturer might incur it).

The manufacturer agrees to protect, indemnify and release the UCI and/or the UCI's authorised agent (if any) from all liability for damages, costs, expenses, losses, complaints, proceedings, actions at law, legal fees and court costs, of any type whatsoever (including lawyers' fees) resulting from any action arising from the approval procedure.

9. GLOSSARY

Approval

Official recognition of the compliance of frames and forks with the UCI regulations in force in accordance with the procedure described in Section 5.

Labelling

The final stage of the approval procedure consisting of the application of the "UCI frame" label which allows commissaires to check the compliance of frames and forks at events.

"UCI frame" label

A label consisting of the "UCI frame" logo, a code identifying the model and the approval date to be applied to the frame in order to certify the compliance of the equipment.

"UCI frame" logo

A graphical representation of the approval of frames and forks.

Model identification Code

A code consisting of letters and digits, unique to a specific model and allowing the manufacturer and the approved model to be identified.

Model

All frames and forks marketed by the same manufacturer and specific to a single discipline having a similar design, but with the option of different sizes.

Full procedure

The approval procedure that goes through all the stages described in Section 5 to fulfil the conditions for approval of a model. This procedure concerns the "one-piece" type models used during time trial and track events which require a mould during their manufacturing process. It includes the opening of an OpenTrust® account for a secure exchange of confidential documents, the checking of all 2D and 3D technical drawings for each size, the dimensional verification of the first standard-sized prototype with the possibility to request that other sizes be checked and labelling.

Intermediate procedure

The standard approval procedure less demanding than the full procedure. This procedure concerns the "one-piece" moulded type models used during massed start road races and cyclo-cross events, as well as all moulded "one-piece" models with backdated approval are subject to an intermediate procedure. It includes the opening of an OpenTrust® account for a secure exchange of confidential documents, the checking of all 2D and 3D technical plans for each size, the possibility to request a dimensional verification of certain sizes and labelling.

Simplified procedure

The reduced approval procedure very less demanding than other procedures. It concerns assembled models by welding, brazing, gluing or other technique, which are defined as "tubular". It includes solely the submission of the Application Form, secure exchange of confidential documents using OpenTrust® on the basis of tickets, the checks of drawings or plans of each size and labelling.

One-piece models

A type of frame model which requires a mould during the manufacturing process.

Tubular models

A type of frame model, the elements of which are assembled by welding, brazing, gluing or other method.



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