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**EXPLAINING THE NEW RULES OF BMX CYCLING  
IN AN INDIVIDUAL WAY (BMX RACING)**

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**РАЗЪЯСНЕНИЕ НОВЫХ ПРАВИЛ ВЕЛОСПОРТА BMX В  
ИНДИВИДУАЛЬНОМ ВИДЕ (BMX RACING)**

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**BMX VELOSPORTING YANGI QOIDALARINI INDIVIDUAL TARZDA  
TUSHUNTIRISH (BMX POYGASI)**

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**АННОТАЦИЯ**

В данной статье приведены разъяснения правил и требований для гонок по велоспорту BMX райсинг для всех возрастов от требований к велосипеду до регулирования участников по заездам.

**ABSTRACT**

This article provides an explanation of the rules and requirements for BMX racing cycling for all ages from the requirements for a bicycle to the regulation of participants in races.

**ANNOTATSIYA**

Ushbu maqolada barcha yoshdagilar uchun BMX poyga velosportiga qo'yiladigan qoidalar va talablar, velosipedga qo'yiladigan talablardan tortib, poyga ishtirokchilarini tartibga solishgacha tushuntirish berilgan.

BMX is an extreme sport in cycling, which is included in the Olympic program.

The main feature of the BMX bike are the wheels of 20 inches, the complete absence of suspension and the presence of only one gear. Otherwise, the variations may be different, depending on the purpose (riding style). BMX bikes are generally very maneuverable, have a low weight (up to 12 kg).

### Frame

BMX frames are designed to be sturdy yet lightweight, so they have a very simple and solid construction: two triangles with a common base, bushes for hubs (dropouts) which can be thick and large. To increase strength, additional braces are welded into the rear frame feathers and sometimes between the main tubes. Cheap BMX frames are made from unalloyed steel, and more expensive - from alloy steel (with the addition of chromium and molybdenum), rarely from titanium or aluminum (the latter material is used for BMX racing frames). The frame technology uses "batting" - pulling still hot tubes. As a result, tubes are thicker in the load areas, and thinner where there is little load. Pulling can be multistage.

On the frame, the carriage cup (under the bearings for the carriage shaft axle) can be of four kinds:

- American. The largest cup, mounted on old and/or cheap bikes. Designed to press two bearing cups, complete with a sleeve between them, so that the bearings will shrink and not break when the axle bolts on the shaft are tightened.

- Mid. About a third smaller in diameter, the bearings are pressed directly into the frame, bypassing the cups.

- Spanish. This cup has the same construction as the Mid, but is the smallest in diameter.

- Euro. This cup is threaded and is designed to fit a special carriage. It has two cups screwed into the frame into which are pressed four bearings (2 per side) and a sleeve between the bearings. This type of bottom bracket is also used in mountain bike frames.

### Wheels

Wheels on BMX have a size of 20 inches (ISO 406, sometimes 451 millimeters), but there are "baby" versions of 18, 16, 14, 12 inches (not for bmx racing). Rims have a wide "box" profile, come in single, double or even triple, most are designed for use with rim brakes. BMX racing also uses rims that are pulled inward for greater stiffness in direct impacts. The number of spokes can be: 48 (4-cross spokes) is an outdated version; 36 (3-cross).

Tires, as a rule, slicks or semi-slicks, depending on the discipline, width 1.8 - 2.50 inches. Recommended chamber pressures are 3-7 atm (300-700kPa).

## Handlebar

The handlebar of a BMX usually has a crossbar - a crossbar in the middle, increasing the strength of the handlebar. The handlebars can be made as two-piece or more. The most popular handlebars are two-element (made of two pipes) and four-element (respectively, four). On the ends of the handlebar, as a rule, are installed (stretched or if there is such a possibility - thrown and screwed by hexagon) grips - handles for increasing the grip of the hands with the handlebar and to prevent damage to the fingers when doing the trick barspin from English to scroll the handlebar at 360 degrees and more simple versions of the trick such as chicken bar slide bar. To ensure that when you fall the handlebar does not cut into the skin, as well as to prevent damage when you fall the bike handlebars are installed on it - stubs on both sides of the handlebar, can be with screws or free-running - nylon.

stem

The part that connects the handlebar to the fork. Basically it is made of one piece of aluminium.

There are two different types of stem: frontload and topload. The front load is the top-load that holds the handlebar cap to the front.

the fork

The part where the front wheel is mounted. It consists of two legs, a stem, and dropouts (plates that hold the hub). Like the frame, the dropouts have an increased area and thickness. Can be made of the same materials as the frame and can be designed to fit an axle of 10 mm, more rarely 14 mm.

## Pegs

A peg is a carbon, metal or plastic tube that is mounted on an axle (not always mounted). Pegs are used for sliding on edges and railings, and also as an additional support when performing tricks. Pegs are made of steel, chromium-molybdenum alloy, titanium and durable plastic. The pedals are available as long, short and so-called "micro pedals". Flat style pins are usually larger in diameter than standard pins, and have a grippy surface to prevent the foot from slipping.

## Crank System

A crank system is defined as a shaft and two connecting rods. The cranks, in cycling terminology, are mistakenly referred to as cranks, whereas the role of the cranks in this case is played by the cyclist's shins. The system on the BMX uses 19 and 22mm axles. There are three types:

- One-Piece, where both connecting rods and shafts are in one piece. Slang for "poker.
- Two-Piece when one of the connecting rods is one piece with the shaft and the other is attached to the shaft by some kind of slotted interface.

- Three-Piece, the most common, is when the two connecting rods and the shaft are separate parts.

The connecting rod system is differentiated by the type of connection that transmits torque to the sprocket. Connecting rods are available as Four-Piece, 8-, 10-, 16-, and 48-piece.

### **Pedals**

BMX pedals are made of aluminum, magnesium, or plastic. Magnesium pedals are lighter than aluminum pedals, but more expensive. Plastic pedals are the lightest but less reliable and have worse grip than aluminum or magnesium pedals. Cheap pedals usually have a steel axle and bulk bearings, expensive pedals have a chromium-molybdenum alloy axle and industrial bearings. On some pedals, the cleats are screwed in with a hexagon. There are also pedals with slide bearings (Odyssey JC\PC). BMX racing also uses contact pedals that you have to buckle into.

### **Hubs**

Cyclists who do a lot of sliding on their pedals wear special "shields" on the front and rear hubs - "hubguards" (hub, protector). These protect the hub flanges and spokes from rubbing as they slide over the pawls.

### **Front Hub**

The body of the bushing is mostly made from aluminum. BMX bushings use two sealed industrial, or bulk, bearings. The hub most often has a 10mm axle, less often a 14mm axle. The most popular version is when the bushing on the fork is held by bolts screwed into the axle. The hub is designed for 36 spokes, less and less often for 48.

### **Rear Hub**

Rear hub housings, like the front hub, are most often made from aluminum, but can also be made from titanium. Rear hubs have a 14 or 10 millimeter axle, or 3/8 inch, and can be held to the frame with nuts or bolts. The bushings come in left-hand and right-hand versions.

Rear hubs are distinguished by their free-running sides: one-way (using a ratchet mechanism) and two-way (so-called "freecoasters" (freewheeling)). A freecoster allows you not to pedal backwards when riding in reverse (Fakie).

There are three designs for transmitting force from the chain to the hub:- Freewheel.

### **Freewheel**

is a special bicycle ratchet that screws onto the hub body. The ratchets and catches are in the freewheel itself and are covered by its housing. There are basically three bearings in the hub body itself, two of which are under the freewheel. The traditional design of the freewheel does not allow it to be made smaller than 13 teeth (left-hand

freewheel with 30×1 metric threads), or 16 teeth (for standard English 1.37"×24tpi threads).

### **Cassette**

Cassette bushings always have a driver (drive pulley), a sprocket with a ratchet mechanism that transmits torque from the chain to the wheel. The hub principle is similar to that of the Freeville, but unlike the Freeville, the pawls are inside the hub body. The driver or hub body is the "cassette" for the pawls and ratchet springs. The driver is most often fitted with 2 or 3 industrial ball bearings, but there may be a single open roller bearing or a ceramic bearing (based on friction sliding). Combinations of these solutions are also used. Divided into two types:

1. With a cog in the housing - in this case the pawls and spring are located on the driver, there are variants with 6, 4 and 3 pawls, as well as different spring systems - one round spring for all pawls or a different spring for each pawl (this method is usually used for bushes with a symmetrical driver design).

2. With cogs on the driver (also called Q-lite) - in this case, the pawls and springs are in the hub body and the cog is in the driver. The advantage of this system is that you can install a larger bearing in the driver. In these bushings, there is a different spring for each dog.

### **Freecoaster**

- These bushings have a coarse thread on the driver instead of the pawls. There is a special nut screwed on the driver inside the bushing body. The principle is as follows: when the pedals are turned, the driver "screws" the nut on itself, it presses against the body and turns the wheel. When the rider stops pedaling, the nut is slightly "unscrewed" and no longer touches the casing. At free travel, the driver is completely disengaged from the hub, so the wheel can spin both ways without transmitting torque to the pedals.

### **Brakes**

The brake system is mounted on the frame so that when you twist the handlebar or frame around it, the cables won't get tangled and lose their effectiveness. Because of this, the front brake cable goes inside the fork, and the rear brake uses a special mechanism called a gyro. This element is located on the steering column and is a bearing with mounts for the brake cables. On the cables, before and after the gyro, splitters are used: the first splits (barrel) the cable, and the second - combines (barrel) them into one. This way, two cables go to the gyroplane at different edges, making the load on the gyroplane even. Sometimes, instead of a gyro and splitters, one long cable is put, and it is of such length that the handlebar can freely make one or more full revolutions. Some BMX riders prefer not to put brakes at all in order to reduce the

weight of the bike or depending on riding style. BMX racing bikes use conventional rim brakes and, less often, disc brakes.

Rules amendments applying on 01.01.2023.

6.1.010

Within the competition speciality of BMX Racing defined in article 6.1.007 for the Masters level, the single category is limited to Men ages 30 and over (1st category). the categories are as follows:

- a. Masters Men - ages: 30 and Over (1st category)
- b. Masters Women - ages: 30 and Over (1 category).

6.4.001

Application to the UCI for the sanctioning of a Challenge event is open to any national federation. The venue of each year's Challenge event shall be allocated at least three years in advance of its scheduled date by the UCI management committee.

6.1.079

Crank arms may be of any length so long as they do not compromise the bicycle's ground clearance. The bottom bracket bearings must be adjusted so as to allow the cranks to spin smoothly and without noticeable play. Pedals must be securely attached to the crank arms. Toe clips and straps are not permitted. Forms of connecting the riders' shoe to the pedal via Interlocking pedal-cleat systems e.g. magnetic pedals are allowed for all riders age 13 and older. For avoidance of doubt, riders aged 12 and under must use flat pedals with no forms of connection to the pedal permitted. interlocking pedal-cleat system. Multiple speed gear systems are permitted.

6.1.084

According to the new rules of UCI WMX racing regulations it is said that regardless of the number of riders in one age category (not more than 8) still must pass the qualification heats of three heats. Previously, they drove the final race at once. Now they are scoring 3 heats, which is also awarded points for the racer in the sum of the three races driver who earned the most points are disqualified from the final race. Thus, for example, 7 riders declared in the category 30 + master after the heats of the qualification of the one racer disqualified and then to the final to start 6 riders lined up. Disqualified racer goes to the list of participants who took 7 place. This is the most important and important change to date the purpose of which is to conduct the selection before the final race and select only worthy of the final.

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