

## Non-standard wheels in conformity with article 1.3.018:

Article 1.3.018 relates only to massed start races.

In this type of event, the riders generally use standard (conventional) wheels which are clearly defined in article 1.3.018. These wheels are authorised de facto.

However, during races in packs, certain riders do use non-standard wheels (rims higher than 2.5 cm, fewer than 16 spokes, spoke thicknesses of over 2.4 mm). If any of these conditions is noted, the wheel is deemed to be a non-standard wheel and must have passed a break test in order for it to be authorised for use in competition.

The manufacturers inform the UCI of the names of wheels which have been successfully tested. The names of these wheels are shown in the list below. The wheels can therefore be clearly identified. If this is not the case then the wheel is not authorised for use.

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### ADA

- Ada wheel – V profile (50mm)

### Ambrosio

- Ambrosio Luster (24, 28 rayons / spokes)
- Ambrosio Onda (jante/rim Focus or FCS 28)
- Ambrosio X Carbo
- Ambrosio X-SPACE (20, 24 rayons / spokes)
- Ambrosio LASERPRO (20, 24 rayons / spokes)
- Ambrosio Thedrema (16, 20 rayons / spokes)

### American Classic

- American Classic CR-420 (18 rayons / spokes)
- American Classic Carbon 38
- American Classic Carbon 58

### Aerohead

- Clincher Pro front wheel (16 rayons / spokes)

### Bianchi

- XL Levitation (16, 24 rayons / spokes)
- XL Elevation (16, 24 rayons / spokes)

### Campagnolo

- NEUTRON Tubular - Clincher
- NEUTRON Ultra (Clincher) (22 rayons / spokes)
- HYPERON
- KHAMSIN (Clincher) (24 rayons / spokes)
- SHAMAL Ultra Tubular – Clincher (16 rayons / spokes)
- PROTON
- EURUS WH02-EUCF
- EURUS CARBON code WH4-EUCFC
- EURUS 2006 CLINCHER TUBLAR (16 rayons / spokes)
- BORA
- SCIROCCO G3 AND SCIROCCO 2006 CLINCHER (20 rayons / spokes)
- ZONDA G4 AND ZONDA 2006 CLINCHER (16 rayons / spokes)
- ZONDA (production stoppée en 1999) (18 rayons / spokes)
- ATLANTA 96 (production stoppée en 1999) (28, 32, 36 rayons / spokes)
- VENTO 63 AND VENTO 2006 (24 rayons / spokes)
- ZONDA (16 rayons / spokes)

### **Carbonsports**

- Light Weight by Carbonsports – Modèle Ventoux (20 rayons / spokes)
- Lightweight Obermayer 12 Gen. II
- Lightweight Obermayer 16 Gen. II
- Lightweight Obermayer 20 Gen. II
- Lightweight Standard 12 Gen. II
- Lightweight Standard 16 Gen. II
- Lightweight Standard 20 Gen. II

### **Cole**

- Shuriken tubular (16-20 rayons / spokes)

### **Colnago**

- Colnago Star

### **Corima**

- Aéro boyau (18, 24 rayons / spokes)
- Aéro pneu (18, 24 rayons / spokes)
- Stevens Scorpio tubulars (18, 24 rayons / spokes)
- Stevens Scorpio clinchers (18, 24 rayons / spokes)

### **Citec**

- Citec 3000 aluminum (16 rayons / spokes)
- Citec Ultralite aluminum (20 rayons / spokes)
- Citec Jet aluminum (16 rayons / spokes)

### **Décathlon**

- Penta Aero 20

### **Dierl**

- Light Weight Carbon Fiber (20 rayons / spokes)

### **Fir**

- Galaxium – jante alu – ailettes carbonées sur rayons
- RA Antara (28 rayons / spokes)
- RA Antara (18 rayons / spokes)
- Speed Lite (18, 24, 28 rayons / spokes)

### **Fulcrum**

- Racing 1 (16 rayons / spokes) tubular / clincher
- Racing 3 (16 rayons / spokes) clincher
- Racing 5 (24 rayons / spokes) clincher
- Racing FC Tubular
- Racing Light (22 rayons / spokes) tubular / clincher
- Racing 0 (16 rayons / spokes) tubular / clincher
- Racing 5 Evolution (20 rayons / spokes) clincher
- Racing Speed (18 rayons / spokes) tubular
- Racing 7 (20 rayons / spokes) clincher

### **Gipiemme**

- Gipiemme Grecale 28"
- Gipiemme Tecno Star 28"
- Gipiemme Tecno 024 Race 28"
- Gipiemme Fulcrum 28
- Gipiemme Tecno 1.55 (20 rayons / spokes)
- Gipiemme Tecno 324 (24 rayons / spokes)
- Gipiemme Tecno 716 (16 rayons / spokes)
- Gipiemme Carbon H4.0 (20 rayons / spokes)
- Gipiemme Carbon H5.5 (20 rayons / spokes)
- Phoenix (20 rayons / spokes)

**HED**

- ALPS 700C (18 rayons / spokes)

**Kinlin**

- XKEYMET KWS-C1 (24 rayons / spokes)
- XKEYMET TB-25 (Tubular)
- 24 FLAT SPOKES WHEEL
- KINLIN KLM41 ETRTO 700C-635
- MANUFACTURE PROCESS T10

**Marchisio**

- Tetragon (16 rayons / spokes)
- Zephir (16 rayons / spokes)
- Alisea (20 rayons ronds / round spokes)
- Solide (28 rayons / spokes)

**Mavic**

- Cosmic (Elite, SL, SL Premium, Pro, SSC, Ultimat)
- Ksyrium SSC
- Ksyrium SSC SL
- Ksyrium SSC SL2
- Ksyrium SSC SL TdF
- Ksyrium (Equipe, SL, ELITE, ES)
- Ksyrium SL Premium (18, 20 rayons / spokes)
- R-Sys (16, 20 rayons / spokes)

**MICHE**

- Supertype (Zipp 404 Tubular)
- Supertype (Zipp 404 Clincher)
- Radial (Zipp 303 Tubular)
- Radial (20, 28 rayons / spokes)

**Neugent**

- Neuvation M28 Aero aluminium (16 rayons plats / flat spokes)

**Nippon Mitsubishi Oil Corporation**

- Nisseki carbon wheel AM27 (18 rayons / spokes)

**Reynolds**

- DV46T (Stratus DV) (16 rayons / spokes)
- DV46UL (Stratus DV – UL (carbon) (16 rayons / spokes)
- DV46C (Stratus DV (carbon) (16 rayons / spokes)
- MV32T (Cirro-MV) Cirro-MV
- MV32C (Cirro-MV clincher) (20 rayons / spokes)

**Ritchey**

- WCS Protocol Road (16 rayons / spokes)
- Pro DS Road (20 rayons / spokes)
- Comp DS Road (20 rayons / spokes)
- VELOMAX Circuit

**Rolf Prima**

- Rolf Prima Vigor – aluminium clincher front wheels (14 rayons / spokes)
- Rolf Prima Echelon (16 rayons / spokes)
- Rolf Prima Carbon (14 rayons / spokes)
- Rolf Prima Carbon IDF 58 (12 rayons / spokes)
- Rolf Prima Tempo (16 rayons / spokes)

## Shimano

- WH-R535 clincher alloy rim (black or silver) (16 rayons / spokes)
- WH-540 clincher alloy rim (black) (16 rayons / spokes)
- WH-6500 clincher alloy rim (silver) (16 rayons / spokes)
- WH-7700 clincher or tubular alloy rim (dark green) (16 rayons / spokes)
- WH-7700 tubular carbon (CFRP) rim (black) (16 rayons / spokes)
- WH-7701 clincher or tubular alloy rim (black) (16 rayons / spokes)
- WH-7701 tubular carbon (CFRP) rim (black) (16 rayons / spokes)
- WH-7800 + WH 7801 clincher or tubular alloy rim (silver) DURA ACE (16, 20, 24 rayons / spokes)
- WH-7800 + WH 7801 tubular carbon (CFRP) rim (black) DURA ACE (16, 20, 24 rayons / spokes)
- WH-7800 SL + WH 7801 clincher alloy rim (black) DURA ACE (16, 20 rayons / spokes)
- WH-7850-C50 (clincher or tubular) (16, 20 rayons / spokes)
- PRO RC50 (High Profile Carbon Tubular) (24 rayons / spokes)

## Spinergy

- Spinergy SRX (2B02) (20, 28 rayons / spokes)
- Spinergy SR3 (2S02) (20, 28 rayons / spokes)
- Spinergy X AERO (PRI-FC-111) (16, 20 rayons / spokes)
- Spinergy X AERO LITE (2L02) (18, 20 rayons / spokes)
- Spinergy X AERO CARBON (16, 20 rayons / spokes)

## Sunny Crown Enterprise

- Sunny Crown Enterprise CKT Carbone (16, 18 rayons / spokes)
- CKT AURORA Carbon (16 rayons / spokes)

## Thorius

- Thorius – model SHADO Carbon – pneu (16, 20 rayons / spokes)
- Thorius – model SHADO Carbon – boyau (16, 20 rayons / spokes)
- Thorius - model N'ERA (24 rayons / spokes)

## Topolino

- Topolino Revelation (24 rayons / spokes)

## Trek

- Aeolus 5.0 ACC (16 rayons / spokes)
- Bontrager X-Lite Tubular
- Bontrager X-Lite Clincher
- Bontrager Race Lite Tubular
- Bontrager Race Lite Clincher
- Bontrager Race X Lite Carbon
- Bontrager Race X Lite Aero
- Bontrager Aero Tubular
- Bontrager Aero Clincher
- Bontrager Triple XXX Lite aero (90mm)
- Bontrager Triple XXX Lite aero (60mm)
- Bontrager Aeolus (16 rayons / spokes)
- Bontrager Aeolus 5.0 ACC (16 rayons / spokes)
- "Vector Comp" (Rolf)
- "Vector Pro" (Rolf)
- Triple XXX lite aero rim (16 rayons / spokes) h90
- Triple XXX lite aero rim (16 rayons / spokes) h60

## Vuelta

- XRP III Silver (24 rayons plats / flat spokes)
- Vuelta Xlite (20 rayons plats / flat spokes)
- Carbon Pro (12 rayons / spokes)

## XERO

- XR-1F XERO lite front wheel (16 rayons / spokes)

### **ZIPP Speed Weaponry**

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|-------------------------------|----------------|----------------------|
| - ZIPP 303 (Z3) Tubular 700 c | (rim ZIPP 280) |                      |
| - ZIPP 303 Tubular 650 c      | (rim ZIPP 245) |                      |
| - ZIPP 404 (Z4) Tubular 700 c | (rim ZIPP 360) |                      |
| - ZIPP 404 Tubular 650 c      | (rim ZIPP 330) |                      |
| - ZIPP 404 Clincher 700 c     | (rim ZIPP 505) |                      |
| - ZIPP 404 Clincher 650 c     | (rim ZIPP 460) |                      |
| - ZIPP 303 Clincher 700 c     | (rim ZIPP 415) |                      |
| - ZIPP 303 Clincher 650 c     | (rim ZIPP 370) |                      |
| - ZIPP 808 (rim 420)          |                | (18 rayons / spokes) |
| - ZIPP – BLEM 808 700         |                | (18 rayons / spokes) |
| - VELOMAX TEMPEST II          |                |                      |

### **Non-standard wheels in conformity with article 1.3.018**

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#### 1.3.018 :

Wheels of the bicycle may vary in diameter between 70 cm maximum and 55 cm minimum, including the tyre. For the cyclo-cross bicycle the width of the tyre shall not exceed 35 mm and it may not incorporate any form of spike or stud.

For massed start road races and cyclo-cross races only wheel designs granted prior approval by the UCI may be used. Wheels will have minimum 12 spokes; spokes can be round, flattened or oval, as far as no dimension of their sections exceeds 10 mm. In order to be granted approval wheels must have passed a rupture test as prescribed by the UCI in a laboratory approved by the UCI. The test results must show that the rupture characteristics obtained are compatible with those resulting from an impact sustained during normal use of the wheel. The following criteria must be fulfilled:

- On impact, no element of the wheel may become detached and be expelled outwards.
- The rupture must not present any shattered or broken off elements, or any sharp or serrated surfaces that could harm the user, other riders and/or spectators.
- The rupture characteristics must not cause the hub to become separated from the rim in such a way that the wheel becomes detached from the forks.

Without prejudice to the tests imposed by the laws, regulations or customs, standard (traditional) wheels are exempted from the rupture test referred to above. A traditional wheel is deemed to be a wheel with at least 16 metal spokes; the spokes may be round, flat or oval, provided that no dimension of their cross sections exceeds 2.4 mm; the section of the rim must not exceed 2.5 cm on each side.

Notwithstanding this article, the choice and use of wheels remains subject to articles 1.3.001 to 1.3.003.