



## NON-STANDARD WHEELS IN CONFORMITY WITH ARTICLE 1.3.018

Version on 23.07.2010

Article 1.3.018 relates only to mass start competitions.

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

However, during mass start competitions, 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 rupture 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.

### ADA

- Ada wheel - V Profile (50 mm) composite carbon aramid 20 spokes

### AEROHEAD

- Pro 16 spokes

### AMBROSIO

- Luster 24/28 spokes
- F28Comp 20/24 spokes
- X Carbo 28 spokes
- XUL 28 spokes
- XXL tubular Zipp 360 rim 20/24 spokes
- XXL clincher Zipp 505 rim 20/24 spokes
- Laserpro 20/24 spokes
- Theorema 16/20 spokes

### AMERICAN CLASSIC

- CR-420 18 spokes
- Carbon 38
- Carbon 58

### BIANCHI

- XL Levitation 16/24 spokes
- XL Elevation 16/24 spokes

### CAMPAGNOLO

- Neutron tubular/clincher 22 spokes
- Neutron Ultra clincher 22 spokes
- Hyperon 22 spokes
- Khamsin clincher 24 spokes
- Shamal Ultra tubular/clincher 16 spokes
- Proton 22 spokes
- Eurus WH02-EUCF 16 spokes
- Eurus Carbon WH4-EUCFC 16 spokes
- Eurus 2006 tubular/clincher 16 spokes
- Bora 18 spokes
- Scirocco G3 & Scirocco 2006 clincher 24 spokes
- Zonda G4 & Zonda 2006 clincher 16 spokes
- Zonda 18 spokes production stopped
- Atlanta 96 28/32/36 spokes production stopped
- Vento G3 & Vento 2006 24 spokes
- Zonda 16 spokes

**CARBONSPORTS**

|   |                                        |           |                    |
|---|----------------------------------------|-----------|--------------------|
| - | Light Weight by Carbonsports – Ventoux | 20 spokes |                    |
| - | Lightweight Obermayer 12 Gen. II       | 12 spokes | production stopped |
| - | Lightweight Obermayer 16 Gen. II       | 16 spokes | production stopped |
| - | Lightweight Obermayer 20 Gen. II       | 20 spokes | production stopped |
| - | Lightweight Standard 12 Gen. II        | 12 spokes | production stopped |
| - | Lightweight Standard 16 Gen. II        | 16 spokes | production stopped |
| - | Lightweight Standard 20 Gen. II        | 20 spokes | production stopped |
| - | Lightweight Standard 16 Gen. III       | 16spokes  |                    |

**CITEC**

|   |                     |           |                    |
|---|---------------------|-----------|--------------------|
| - | 3000 aluminium      | 16 spokes |                    |
| - | Ultralite aluminium | 20 spokes | production stopped |
| - | Jet aluminium       | 16 spokes | production stopped |
| - | 3000 S Aero         | 14 spokes |                    |
| - | 3000 S Aero Carbon  | 16 spokes |                    |
| - | 6000 CX Carbon      | 12 spokes |                    |

**COLE**

|   |                  |              |  |
|---|------------------|--------------|--|
| - | Shuriken tubular | 16/20 spokes |  |
|---|------------------|--------------|--|

**COLNAGO**

|   |      |           |  |
|---|------|-----------|--|
| - | Star | 18 spokes |  |
|---|------|-----------|--|

**CORIMA**

|   |                         |              |           |
|---|-------------------------|--------------|-----------|
| - | AERO tubular            | 18/24 spokes |           |
| - | AERO clincher           | 18/24 spokes |           |
| - | AERO+ MCC tubular       | 50 mm rim    | 12 spokes |
| - | WINIUM+ MCC tubular     | 28 mm rim    | 12 spokes |
| - | Stevens Scorpo tubular  | 18/24 spokes |           |
| - | Stevens Scorpo clincher | 18/24 spokes |           |

**DECATHLON**

|   |                        |           |                    |
|---|------------------------|-----------|--------------------|
| - | Penta Aero 20 clincher | 20 spokes | production stopped |
|---|------------------------|-----------|--------------------|

**DETEC**

|   |            |           |           |
|---|------------|-----------|-----------|
| - | M58 carbon | 58 mm rim | 20 spokes |
| - | U38 carbon | 38 mm rim | 20 spokes |
| - | U50 carbon | 50 mm rim | 20 spokes |
| - | U60 carbon | 60 mm rim | 20 spokes |
| - | U80 carbon | 80 mm rim | 20 spokes |

**DIERL**

|   |                          |           |  |
|---|--------------------------|-----------|--|
| - | Lightweight Carbon Fiber | 20 spokes |  |
|---|--------------------------|-----------|--|

**DT SWISS**

|   |                                          |              |  |
|---|------------------------------------------|--------------|--|
| - | RRC 1250 clincher                        | 18 spokes    |  |
| - | RR 1850 clincher                         | 20 spokes    |  |
| - | RRC 425F Tubular 32 (Reynolds MV32 T UL) | 20 spokes    |  |
| - | RRC 570F Clincher 32 (Reynolds MV32C UL) | 20 spokes    |  |
| - | RRC 445F Tubular 46 (Reynolds DV46T UL)  | 16/20 spokes |  |
| - | RRC 600F Clincher 46 (Reynolds DV46C UL) | 16/20 spokes |  |
| - | RRC 625F Tubular 66 (Reynolds SDV 66 T)  | 16 spokes    |  |

**EASTON**

|   |           |           |              |
|---|-----------|-----------|--------------|
| - | EC90 Aero | 56 mm rim | 18/20 spokes |
| - | EC90 SL   | 38 mm rim | 18/24 spokes |

**EDGE COMPOSITES**

|   |                        |                    |  |
|---|------------------------|--------------------|--|
| - | Carbon 68 / 65 tubular | 16/20/24/28 spokes |  |
| - | Carbon 45              | 18/20/24/28 spokes |  |

**EDGE DESIGN**

|   |                   |           |           |
|---|-------------------|-----------|-----------|
| - | Edge 38FC tubular | 38 mm rim | 20 spokes |
| - | Edge 50FC tubular | 50 mm rim | 20 spokes |
| - | Edge 58FC tubular | 58 mm rim | 20 spokes |
| - | Edge 85FC tubular | 85 mm rim | 20 spokes |
| - | Sidewinder 3.8    | 38 mm rim | 20 spokes |
| - | Sidewinder 8.5    | 85 mm rim | 20 spokes |

**EQUINOX**

|   |                    |           |           |
|---|--------------------|-----------|-----------|
| - | RT033-700C carbon  | 33 mm rim | 20 spokes |
| - | RT038-700C carbon  | 38 mm rim | 20 spokes |
| - | RT050-700C carbon  | 50 mm rim | 20 spokes |
| - | RT050C-700C carbon | 50 mm rim | 20 spokes |
| - | WH051-700C Carbon  | 85 mm rim | 20 spokes |

**FFWD (FAST FORWARD WHEELS)**

|   |           |           |              |
|---|-----------|-----------|--------------|
| - | F6        |           | 20/24 spokes |
| - | F5 carbon | 50 mm rim | 20/24 spokes |
| - | F4 carbon | 40 mm rim | 24 spokes    |

**FIR**

|   |                                   |  |                 |
|---|-----------------------------------|--|-----------------|
| - | Galaxium (carbon wings on spokes) |  | 20 spokes       |
| - | Ra Antara                         |  | 28 spokes       |
| - | Ra Antara                         |  | 18 spokes       |
| - | Speed Lite                        |  | 18/24/28 spokes |

**FSA EUROPE**

|   |                        |           |              |
|---|------------------------|-----------|--------------|
| - | K-Force Carbon tubular |           | 20 spokes    |
| - | SLK Carbon             | 50 mm rim | 20/24 spokes |

**FULCRUM**

|   |                                         |  |                    |
|---|-----------------------------------------|--|--------------------|
| - | Racing Zero tubular/clincher            |  | 16 spokes          |
| - | Racing Zero 2-Way Fit clincher/tubeless |  | 16 spokes          |
| - | Racing 1 tubular/clincher               |  | 16 spokes          |
| - | Racing 1 2-Way Fit clincher/tubeless    |  | 16 spokes          |
| - | Racing 3 clincher                       |  | 16 spokes          |
| - | Racing 5 clincher                       |  | 24 spokes          |
| - | Racing 5 Evolution clincher             |  | 20 spokes          |
| - | Racing 7 clincher                       |  | 20 spokes          |
| - | Racing Light tubular/clincher           |  | 22 spokes          |
| - | Racing Light XLR tubular                |  | 18 spokes          |
| - | Racing Speed tubular                    |  | 18 spokes          |
| - | Racing Speed XLR tubular                |  | 18 spokes          |
| - | Racing FC tubular                       |  | 18 spokes          |
|   |                                         |  | production stopped |

**GIPIEMME**

|   |                    |  |           |
|---|--------------------|--|-----------|
| - | Grecal 28"         |  | 16 spokes |
| - | Tecno Star 28"     |  | 24 spokes |
| - | Tecno 024 Race 28" |  | 24 spokes |
| - | Fulcrum 28         |  | 16 spokes |
| - | Tecno 1.55         |  | 20 spokes |
| - | Tecno 324          |  | 24 spokes |
| - | Tecno 716          |  | 16 spokes |
| - | Carbon H4.0        |  | 20 spokes |
| - | Carbon H5.5        |  | 20 spokes |
| - | Phoenix            |  | 20 spokes |

**GRAVITY-ZERO**

|   |                 |           |           |
|---|-----------------|-----------|-----------|
| - | Carbon Tubular  | 50 mm rim | 20 spokes |
| - | Carbon Clincher | 50 mm rim | 20 spokes |

| HED       |                                                        |              |                                 |
|-----------|--------------------------------------------------------|--------------|---------------------------------|
| -         | ALPS 700C                                              |              | 18 spokes                       |
| -         | Stinger 4                                              | 46 mm rim    | 18/24 spokes                    |
| -         | Stinger 6                                              | 60 mm rim    | 18/24 spokes                    |
| -         | Stinger 9                                              | 90 mm rim    | 18/24 spokes                    |
| -         | Jet 6                                                  | 63 mm rim    | 18/24/28 spokes                 |
| -         | Jet 9                                                  | 90 mm rim    | 18/24/28 spokes                 |
| -         | Scorpio or Stinger 3                                   |              | 18 spokes                       |
| KINLIN    |                                                        |              |                                 |
| -         | XKeymet KWS-C1                                         |              | 24 spokes                       |
| -         | XKeymet TB-25 tubular                                  |              | 24 spokes                       |
| LITE      |                                                        |              |                                 |
| -         | T58 carbon tubular (Detec M58)                         | 58 mm rim    | 20 spokes                       |
| -         | C38 carbon clincher (Detec U38)                        | 38 mm rim    | 20 spokes                       |
| -         | C50 carbon clincher (Detec U50)                        | 50 mm rim    | 20 spokes                       |
| -         | C80 carbon clincher (Detec U80)                        | 80 mm rim    | 20 spokes                       |
| MARCHISIO |                                                        |              |                                 |
| -         | Tetragon                                               |              | 16 spokes production stopped    |
| -         | Zefir                                                  |              | 16 spokes                       |
| -         | Tension                                                |              | 20 spokes                       |
| -         | Solida                                                 |              | 28 spokes                       |
| -         | Carbozefir / T800                                      | 38 mm rim    | 20 spokes                       |
| MATRIX    |                                                        |              |                                 |
| -         | T38 carbon tubular                                     | 38 mm rim    | 20 spokes                       |
| -         | T50 carbon tubular                                     | 50 mm rim    | 20 spokes                       |
| -         | T60 carbon tubular                                     | 60 mm rim    | 20 spokes                       |
| MAVIC     |                                                        |              |                                 |
| -         | Cosmic Elite                                           |              |                                 |
| -         | Cosmic Carbone Pro, SL, SL Premium, SSC, Ultimate, SLR |              | production stopped              |
| -         | Cosmic Carbone 80 SSC 2010                             |              | 16/20 spokes                    |
| -         | Ksyrium SSC                                            |              | 18/20 spokes production stopped |
| -         | Ksyrium SSC SL                                         |              | 18/20 spokes production stopped |
| -         | Ksyrium SSC SL2                                        |              | 18/20 spokes production stopped |
| -         | Ksyrium SSC SL TdF                                     |              | 18/20 spokes production stopped |
| -         | Ksyrium Equipe, SL, ELITE, ES                          |              | 18/20 spokes production stopped |
| -         | Ksyrium SL Premium                                     |              | 18/20 spokes production stopped |
| -         | Ksyrium SL "10ème anniversaire" clincher               |              | 18 spokes                       |
| -         | R-SYS SL tubular/clincher                              |              | 16/20 spokes                    |
| -         | R-SYS Premium clincher                                 |              | 16/20 spokes                    |
| -         | R-SYS Ultimate tubular                                 |              | 16/20 spokes                    |
| -         | R-SYS Lab ISM 3D                                       |              | 16/20 spokes                    |
| -         | K10                                                    |              | 16/20 spokes                    |
| MAX-WHEEL |                                                        |              |                                 |
| -         | Unlimited Speed                                        | 50 mm rim    | 20 spokes                       |
| MERCURY   |                                                        |              |                                 |
| -         | M3 (Edge Design Edge 38FC)                             | 38 mm rim    | 20 spokes                       |
| -         | M5 (Edge Design Edge 58FC)                             | 58 mm rim    | 20 spokes                       |
| -         | M9 (Edge Design Edge 85FC)                             | 85 mm rim    | 20 spokes                       |
| -         | M3 (Edge Design Sidewinder 3.8)                        | 38 mm rim    | 20 spokes                       |
| -         | M8 (Edge Design Sidewinder 8.5)                        | 85 mm rim    | 20 spokes                       |
| MICHE     |                                                        |              |                                 |
| -         | Radial tubular                                         | Zipp 303 rim | 24/28 spokes                    |
| -         | Radial                                                 |              | 20/28 spokes                    |
| -         | Supertype tubular                                      | Zipp 404 rim | 24/28 spokes                    |
| -         | Supertype clincher                                     | Zipp 404 rim | 24/28 spokes                    |

- Supertype 358 tubular Zipp 365 and 280 rims
- SWR Carbon 18 spokes

#### NEUGENT

- Neuvation M28 Aero 16 spokes

#### NIPPON MITSUBISHI OIL CORPORATION

- Nisseki Carbon Wheel AM27 18 spokes

#### PRO-LITE

- Gavia 20 spokes
- Vicenza 20 spokes

#### PRORACE

- Shooters CW051 carbon 51 mm rim 20/24 spokes

#### REYNOLDS

- DV46T (Stratus DV) 16/20 spokes
- DV46T Assault/Cross/Track 16/20 spokes
- DV46UL (Stratus DV UL Carbon) 16/20 spokes
- DV46T UL 16/20 spokes
- DV46C (Stratus DV Carbon) 16/20 spokes
- DV46C UL/Assault 16/20 spokes
- MV32T (Cirro MV) 20 spokes
- MV32T UL 20 spokes
- MV32C (Cirro MV clincher) 20 spokes
- MV32C UL/Attack 20 spokes
- SDV 66 tubular 16 spokes
- Solitude 700 C clincher 20 spokes

#### RITCHEY

- WCS Protocol Road 16 spokes
- Pro DS Road 20 spokes
- Comp DS Road 20 spokes
- Velomax Circuit production stopped
- Superlogic Carbon Tubular 46 (Reynolds DV46T UL) 16/20 spokes
- Superlogic Carbon Clincher 46 (Reynolds DV46C UL) 16/20 spokes

#### ROLF PRIMA

- Vigor 14 spokes
- Echelon 16 spokes
- Carbon TdF 38 14 spokes
- Carbon TdF 58 12 spokes

#### SHIMANO

- WH-R535 clincher (black/silver) 16 spokes production stopped
- WH-540 clincher (black) 16 spokes production stopped
- WH-6500 clincher (silver) 16 spokes production stopped
- WH-7700 tubular/clincher (dark green) 16 spokes production stopped
- WH-7700 CFRP tubular (black) 16 spokes production stopped
- WH-7701 tubular/clincher (black) 16 spokes production stopped
- WH-7701 CFRP tubular (black) 16 spokes production stopped
- WH-7800 + WH 7801 tubular/clincher (silver) Dura Ace 16/20/24 spokes production stopped
- WH-7800 + WH 7801 CFRP tubular (silver) Dura Ace 16/20/24 spokes production stopped
- WH-7800 SL + WH 7801 tubular (black) Dura Ace 16/20 spokes production stopped
- WH-7850-C50-CL 16 spokes
- WH-7850-C50-TU 16 spokes
- WH-RS 30 16 spokes
- WH-7850-C75-TU 12 spokes
- WH-7850-C35-TU 16 spokes
- WH-7900-C35-TU 16 spokes
- WH-RS20-A 16 spokes

|   |                                       |           |
|---|---------------------------------------|-----------|
| - | WH-RS30-A                             | 16 spokes |
| - | PRO RC50 High Profile Carbon clincher | 24 spokes |
| - | PRO RC50 High Profile Carbon tubular  | 24 spokes |

#### SPINERGY

|   |                     |              |
|---|---------------------|--------------|
| - | SRX (2B02)          | 20/28 spokes |
| - | SR3 (2S02)          | 20/28 spokes |
| - | X Aero (PRI-FC-111) | 16/20 spokes |
| - | X Aero Lite (2L02)  | 18/20 spokes |
| - | X Aero Carbon       | 16/20 spokes |

#### SUNNY CROWN ENTERPRISE

|   |                      |              |
|---|----------------------|--------------|
| - | CKT Splendor Carbone | 16/18 spokes |
| - | CKT Aurora Carbon    | 16 spokes    |

#### THORIUS

|   |                       |              |
|---|-----------------------|--------------|
| - | SHADO Carbon clincher | 16/20 spokes |
| - | SHADO Carbon tubular  | 16/20 spokes |
| - | N'ERA                 | 24 spokes    |

#### TOKEN

|   |      |              |
|---|------|--------------|
| - | C30A | 20 spokes    |
| - | T50  | 20 spokes    |
| - | T38  | 20/24 spokes |
| - | C50  | 20/24 spokes |

#### TOPOLINO

|   |            |           |
|---|------------|-----------|
| - | Revelation | 24 spokes |
|---|------------|-----------|

#### TREK

|   |                                           |              |                    |
|---|-------------------------------------------|--------------|--------------------|
| - | Bontrager Aeolus 9.0 (XXX-lite Aero 90)   | 16 spokes    |                    |
| - | Bontrager Aeolus 6.5 (XXX-lite Aero 60)   | 16 spokes    |                    |
| - | Bontrager Aeolus 5.0 Tubular              | 16 spokes    |                    |
| - | Bontrager Aeolus 5.0 ACC Clincher         | 16 spokes    |                    |
| - | Bontrager Aeolus 5.0 SE Carbon Tubular    | 18 spokes    |                    |
| - | Bontrager Race X-lite Aero Tubular        | 16 spokes    | production stopped |
| - | Bontrager Race X-lite Carbon Aero Tubular | 16 spokes    | production stopped |
| - | Bontrager Race X-lite Tubular             | 20/24 spokes | production stopped |
| - | Bontrager Race X-lite Clincher            | 20/24 spokes |                    |
| - | Bontrager Race Lite Tubular               | 20/24 spokes | production stopped |
| - | Bontrager Race Lite Aero Clincher         | 20/24 spokes |                    |
| - | Vector Comp (Rolf)                        | 20 spokes    | production stopped |
| - | Vector Pro (Rolf)                         | 14 spokes    | production stopped |

#### TUFO

|   |                |           |
|---|----------------|-----------|
| - | Cyclone Energy | 20 spokes |
|---|----------------|-----------|

#### URSUS

|   |           |           |              |
|---|-----------|-----------|--------------|
| - | Miura C58 | 58 mm rim | 20/24 spokes |
|---|-----------|-----------|--------------|

#### VISION

|   |                                    |            |              |
|---|------------------------------------|------------|--------------|
| - | TriMaxPro Special Series Aluminium |            | 20 spokes    |
| - | TriMax Carbon                      | 50 mm rime | 20/24 spokes |

#### VUELTA

|   |                |           |
|---|----------------|-----------|
| - | XRP III Silver | 24 spokes |
| - | Xlite          | 20 spokes |
| - | Carbon Pro     | 12 spokes |

#### VZAN

|   |              |           |
|---|--------------|-----------|
| - | Futura       | 20 spokes |
| - | Concept Road | 20 spokes |

| XERO                |                            |              |                                 |
|---------------------|----------------------------|--------------|---------------------------------|
| -                   | XR-1F                      |              | 16 spokes                       |
| ZIPP SPEED WEAPONRY |                            |              |                                 |
| -                   | 303 Z3 Tubular             | Zipp 280 rim | 18/21 spokes production stopped |
| -                   | 303 Tubular 650c           | Zipp 245 rim |                                 |
| -                   | 303 Tubular 700c           |              |                                 |
| -                   | 303 Clincher               | Zipp 415 rim | 18 spokes                       |
| -                   | 303 Clincher 650c          | Zipp 370 rim | 18 spokes                       |
| -                   | 404 Z4 Tubular             | Zipp 360 rim | 18/21 spokes production stopped |
| -                   | 404 Tubular 650c           | Zipp 330 rim |                                 |
| -                   | 404 Tubular 700c           |              |                                 |
| -                   | 404 Clincher               | Zipp 505 rim | 18 spokes                       |
| -                   | 404 Clincher 650c          | Zipp 460 rim |                                 |
| -                   | 808 Tubular                | Zipp 420 rim | 18 spokes                       |
| -                   | 808 Clincher               | Zipp 420 rim |                                 |
| -                   | Velomax Tempest II         |              | production stopped              |
| -                   | SRAM S30 AL Sprint         | 30 mm rim    | 18/20 spokes                    |
| -                   | SRAM S40 Clincher          | Zipp 415 rim |                                 |
| -                   | SRAM S60 Clincher          | Zipp 505 rim |                                 |
| -                   | SRAM S80 Clincher          | Zipp 520 rim |                                 |
| -                   | FlashPoint 40              | Zipp 415 rim |                                 |
| -                   | FlashPoint 60              | Zipp 505 rim |                                 |
| -                   | FlashPoint 80              | Zipp 520 rim |                                 |
| ZYZX                |                            |              |                                 |
| -                   | Race Attack 58 (Detec M58) | 58 mm rim    | 20 spokes                       |
| -                   | Race Attack 38 (Detec U38) | 38 mm rim    | 20 spokes                       |
| -                   | Race Attack 60 (Detec U60) | 60 mm rim    | 20 spokes                       |
| -                   | Race Attack 80 (Detec U80) | 80 mm rim    | 20 spokes                       |

## **NON-STANDARD WHEELS IN CONFORMITY WITH ARTICLE 1.3.018**

### **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 mass start competitions in the disciplines road and cyclo-cross, only wheel designs granted prior approval by the UCI may be used. Wheels shall have at least 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 third parties.
- 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.