



## **Mounting and care instructions for clincher and folding tyres**

**English 2018**

## GENERAL DIRECTIONS FOR USE AND CARE INSTRUCTIONS

-  Before every ride, check the tyre pressure and make sure the tyres are in sound condition. Check the tyre pressure with a pump with pressure gauge.
-  Before every ride, check the overall condition of the tyre and its proper seat by taking the tyre witness line as reference. The distance of the witness line to the rim must be even. Make also sure that the valve is not oblique (ill. 1).
-  Before every ride, test the brakes in standing by forcefully pulling the brake levers/shifters towards the handlebar. The brake pads of rim brakes must hit the rim evenly with their entire surface (ill. 2). They must not touch the tyre during braking, when released or in between. Check the thickness of the brake pads as well.
-  Replace worn down, brittle or cracked tyres with worn down tread and/or visible carcass fabric. Moisture and dirt could penetrate and impair the structure and hence the stability of the tyre. The tube could burst. Risk of fall!
-  Do not ride over sharp edges.
-  Do not clean the tyre by using solvents, such as acetone, benzine, thinner.
-  Tyres, inner tubes and rim strips should be replaced after three years irrespective of the mileage. Be sure to only use inner tubes with valves matching the rim.
-  Tyres wear down during operation. This wear cannot be avoided, but restricted by adapted riding style and careful treatment. Therefore avoid braking that blocks the wheel and drags it over the ground.
-  Do not store the tyres in the blazing sun or near a source of heat. When storing away your bicycle over the winter, make sure the tyres are always sufficiently inflated.
-  During rather long down times (e.g. over the winter) the inner tubes gradually loose air. If the bicycle is left standing on flat tyres for a longer period of time, this can cause damage to the structure of the tyres. It is therefore better to hang the wheels or the entire bike or to check the tyre pressure regularly.
-  Check the tyre pressure regularly and follow the recommendations of Continental on the sleeve, the packaging or on the tyre itself.
-  Tyres may show white discolourations from the beginning on. This is the normal appearance of protective anti-ageing wax.

## TYRE DIMENSIONS AND RIM CONFIGURATION

When choosing a tyre, the tyre dimension is already determined by the rim size. Indications as to the tyre size are found on the side wall of the tyre.

There are two designations for the tyre size: the more precise one is the standardized designation in millimetres. The combination 23–622 (ill. 3) means e.g. a tyre width of 23 mm (B) in inflated condition and an (inner) diameter of 622 millimetres (D).

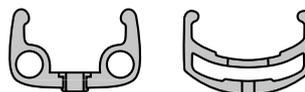
The other size designation is indicated in inches, e.g. 23x7/8 or in millimetres, e.g. 700x23c.

Observe the rim width configuration according to ETRTO during mounting:

		Rim width well-base rims			Rim width hooked-bead rims				
Nominal tyre width (mm)	18				13C				
	20				13C				
	23	16			13C	15C			
	25	16	18		13C	15C	17C		
	28	16	18	20	15C	17C	19C		
	32	16	18	20	15C	17C	19C		
	37	18	20	22	17C	19C	21C		
	40	20	22	24	19C	21C	23C		
	44	20	22	24	27	19C	21C	23C	25C
	47	22	24	27	19C	21C	23C	25C	
	50	24	27	30,5	21C	23C	25C		
	54	27	30,5		25C				
	57	27	30,5		25C				
62	27	30,5							

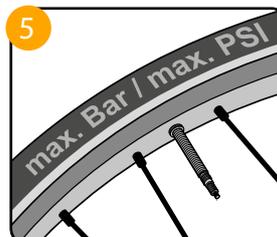
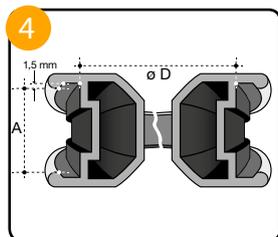
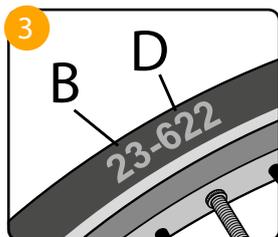
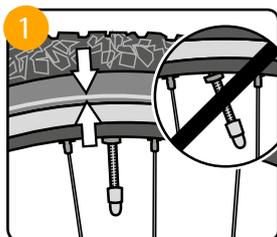
Continental recommends that you mount bicycle tyres only on hooked-bead rims in general. Hooked-bead rims provide a more secure hold. Especially with air pressures exceeding 3 bar these advantages are safety-relevant. From 5 bar on (72.5 PSI) hooked-bead rims are even stipulated by the ETRTO standard. This rim type, for example 622 x 13C, is indicated with a rim base diameter in mm (size D), the rim width in mm (size A) and the index "C" for crotchet (ill. 4).

-  Always observe the permissible maximum pressure on the tyre side (ill. 5).
-  Tyres allowing an inflation pressure of 5 bar or more have to be mounted on hooked-bead rims, identifiable by the attached "C" in the designation, e.g. 622 x 19C. Ask your Continental dealer for advice.



-  Non-matching tyre-rim combinations can result in a sudden tube failure or make the tyre come off the rim. There is the risk of an accident with unforeseeable consequences!

 If the size information on older rims is no longer legible, the rim width can simply be measured by using a calliper from one hooked edge to the other.



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- ⚠ Excessive pressures can impair the rim. Ask a specialist retailer or the rim manufacturer whether your rim withstands the tyre pressure.
- ⚠ If the pressure is too low, the inner tube may be squashed.
- ⚡ **Treat your tyres with care. Never inflate the tyre beyond its maximum air pressure! Otherwise it might burst or come off the rim during the ride.**
- ⚡ **Check the condition of the rim at regular intervals. In the case of rim brakes, the rim sides wear down which can make the inner tube burst. If you are in doubt, ask your Continental dealer.**

## MOUNTING

Check the condition of the rim and of the rim strip first. Make sure the rim base is fully covered and without sharp edges or holes. The rim strip should be positioned evenly; it must neither be damaged nor cracked and cover all spoke nipples and holes (ill. 6).

- ⚡ **Defective rim strips must be replaced immediately.**
- ⚡ **When mounting the tyre and the rim strip make sure the tyre remains free of impurities, such as sand or stones which might damage the inner tube.**

Slip one side of the tyre onto the rim (ill. 7).

Press this tyre side over the edge of the rim by using your thumb and then around the entire circumference (ill. 8). You should be able to do that without tool.

- ⚠ While doing so, observe the indicated rotational direction of the tyre noted on the tyre side.
- ⚠ Inner tubes also age. Therefore, with a new tyre you also need to mount a new inner tube. Be sure to only use inner tubes with valves matching the rim.
- 💡 Videos describing the tyre mounting in detail are available in our video centre at [www.continental-reifen.de/fahrrad/service/videocenter](http://www.continental-reifen.de/fahrrad/service/videocenter)

Inflate the inner tube with a little pressure until it adopts a round form (ill. 9).

Insert the tube valve into the valve hole of the rim and unfold the inner tube fully inside the tyre. Make sure to prevent folds in the tube (ill. 10).

Start on the side opposite to the valve and press the other tyre side over the rim flange. Make sure the inner tube does not get pinched and squashed between tyre and rim. Work the tyre into the rim by approaching the valve evenly from both sides (ill. 11). Pressing the tyre side as far as possible to the centre of the rim into the well-base will ease the mounting on the last centimetres.

If you do not succeed, you will have to use plastic tyre levers to lever the tyre side over the rim flange. Make sure their blunt ends point towards the inner tube and the inner tube does not get damaged (ill. 12).

The tyre is mounted. Does the valve stand upright (ill. 13)? If it does not, dismount one tyre side again and reposition the inner tube.

To ensure a tension-free position of the tyre and the inner tube on the rim, you should flex the tyre inflated to half of its pressure over its entire circumference (ill. 14).

- ⚡ **Subsequently, press the valve forcefully inwards, pull it out of the rim again and fix it with the fastening nut. Inflate the inner tube to the maximum pressure. The maximum pressure is indicated on the side of the tyre.**

Check the proper seat of the tyre by means of the “witness line” above the rim flange. The distance between the line and the rim flange should be even around the entire circumference of the tyre (ill. 15).

The tyre’s rolling performance can be adjusted to the rider’s weight and the ground by varying the tyre pressure according to the below mentioned recommendations:

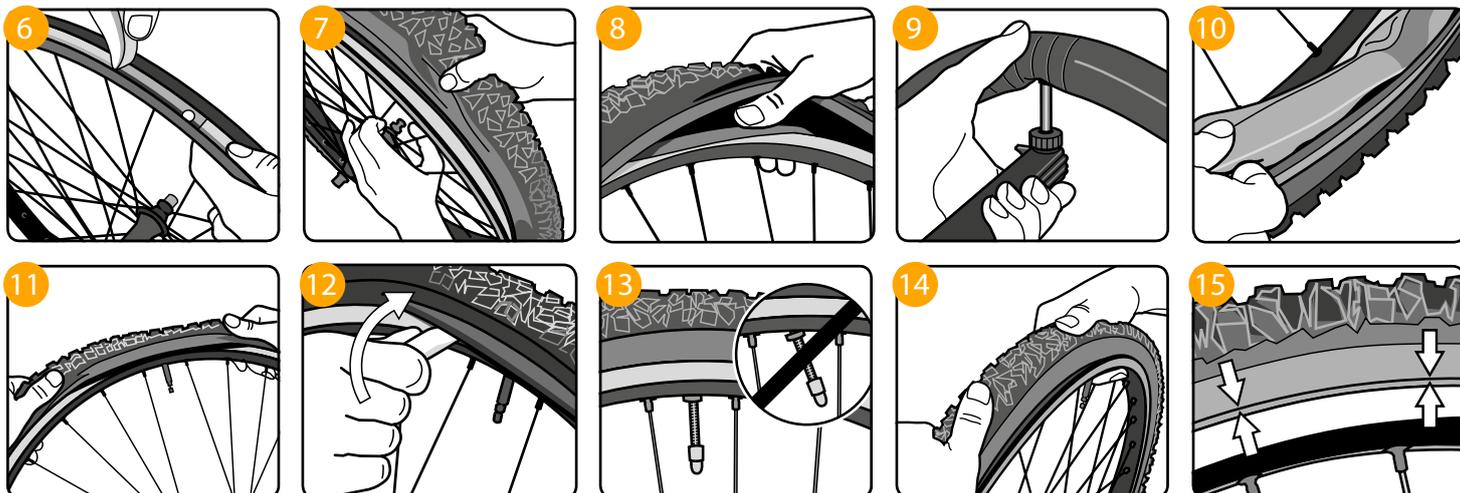
**City/Touring:** For a rider of about 80 kg Continental recommends riding the tyre at about 80 % of the maximum pressure.

**MTB:** For a rider of about 80 kg Continental recommends riding the tyre at about 75 % of the maximum pressure.

**Race:** For a rider of about 80 kg Continental recommends riding the tyre at about 0,5 bar below the maximum pressure.

- ⚡ **In the case of heavy loads (e.g. luggage, child seat etc.) and when the permissible maximum weight is achieved, the tyre should always be ridden at the maximum permissible pressure.**
- ⚡ **In operation the tyre’s air pressure should never fall short of the minimum and never exceed the maximum air pressure indicated.**

Finish by screwing the protective cap on the valve.



## REMOVAL

Screw the valve cap and the fastening nut off the valve and deflate the tyre completely.

Press the tyre from the rim side into the centre of the rim over the entire circumference. This will ease the removal.

Apply a plastic tyre lever to the lower edge of the tyre just beside the valve and lever the tyre side over the rim flange. Hold the tyre lever tight in this position. Insert the second tyre lever on the other side of the valve at about ten centimetres from the first one between rim and tyre and lever the side once again over the rim flange (ill. 16).

After levering a part of the tyre side over the rim flange you should normally be able to remove the tyre side completely by slowly moving the tyre lever around the whole circumference (ill. 17).

Now you can pull out the inner tube. The second tyre side can simply be removed from the rim.

- ⚠ In case of a puncture, replace the inner tube for your own safety!
- ⚡ **Check the rim strip.** A displaced, damaged or non-fitting rim strip can lead to sudden loss of tyre pressure. If you are in doubt, ask your Continental dealer!
- ⚡ **Before you set off again check whether the brake surfaces or the brake discs are still free of grease or other lubricants after the mounting. Check whether the brake pads hit the brake surfaces. Check the proper seat of the wheel fastening and, if necessary, the support of the multi-speed hub. Be sure to do a brake test in standing!**
- ⚠ Before mounting or removing a wheel, read the instructions of the wheel manufacturer and make yourself familiar with the closing mechanism. If you are in doubt, contact your Continental dealer.

## USE OF CONTINENTAL CLINCHER AND FOLDING TYRES WITH CARBON RIMS FOR CLINCHER TYRES

In the case of carbon rims for clincher tyres there is the risk that the tyre side is slit open by the sharp-edged design of the rim flange.

Before mounting check that the hook of the rim is round. Take an aluminium hooked bead rim of a renowned manufacturer as reference. Move your finger carefully along both flanges of your wheels. You should not feel any extremely rough or sharp-edged areas (ill. 18 and 19). Replace critical rims to be on the safe side. If necessary, ask an experienced Continental dealer for advice.

## USE OF CONTINENTAL TYRES AND INNER TUBES WITH RIMS FOR CLINCHER TYRES MADE OF CARBON AND ALUMINIUM ("TUBELESS READY"); WITHOUT RIM STRIP

For road racing bicycles more and more fully sealed aluminium or carbon rim profiles are on offer. The manufacturers therefore refrain from rim strips. The problem with this is that the heat generated by rim brakes is transmitted undiminished into the tyre system.

- ⚡ **Carbon as rim material has the disadvantage of a lower heat conductivity. During braking, heat builds up and can unduly increase the thermal load on tubes and tyres. This can result in sudden failure of the inner tube. Risk of fall!**
- ⚡ **Riding without rim strip can result in sudden tube failure during extended braking manoeuvres, e.g. when riding down a mountain pass. The rim strip reduces the risk of a tube failure which may result in a loss of control over the bicycle with unforeseeable consequences for life and limb. Risk of fall! This applies in particular to latex tubes as well as to lightweight tubes with less than 70 grams.**

To minimize the risk of a tube failure Continental strongly recommends:

- ⚡ **Make it a rule to use Continental Easy Tape rim strip, even if the wheel manufacturer indicates the use without rim strip (ill. 20 hooked-bead rim, ill. 21 well-base rim).**
- ⚡ **Make it a rule to use Continental race tyres in general, especially when riding in hilly terrains (ill. 22). Do not use latex or lightweight tubes ("Light", "Supersonic") (ill. 23).**

Furthermore, Continental recommends that you optimize your riding technique. Constant braking with permanent dragging of the brake can lead to too high temperatures which may result in a sudden tube failure.

Make it a rule to actuate both brakes when riding downhill (ill. 24 and 25). This distributes the brake heat on both rims.

Brake before bends and release the brake again as soon as possible. Continue rolling without braking afterwards, as far as road conditions permit it. This kind of pulsating braking allows the rim to cool down a little.

If you were forced to brake constantly over a longer period of time during downhill riding, make a stop, if possible, to let the rims cool down a little.

