



# Basic Bike Maintenance – Cleaning and Checking For Wear

Virtual Clubnight 15<sup>th</sup> March 2021

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# Your bike

Most of your bike is made from components that are consumables, ie that need replacing over time. How long before they need replacing depends on how well you look after them.



# Cleaning your bike

Here are a couple of videos available on the British Cycling Website to show you how:

Washing - <https://www.youtube.com/watch?v=Hw3GwioTuT0>

Degreasing and Lubricating the chain - <https://www.britishcycling.org.uk/knowledge/bike-kit/get-started/article/izn20130419-How-to-lube-your-chain-0>

Cleaning your bike is not about making it look pretty, it is about minimising the wear to vital components (and making it look pretty...)

It is a lot easier to both clean and inspect your bike for wear if you have the bike in a bike stand – easier on your back too!





# Cleaning and Inspecting your bike – the wheels



The wheels – often neglected but essential to clean regularly. The dirty water and muck we ride through over winter creates a great grinding paste that in combination with your brake blocks wear away your wheel rim!

Whilst they do last a long time the rim will eventually wear down to a thickness that can't hold the pressure of the tyre and will collapse!

After cleaning your wheels inspect the braking surface for wear – some manufacturers have 'wear' strips in the braking surface to indicate the wear.



# Cleaning and Inspecting your bike – the tyres

Having got your wheels nice and clean it is time to inspect your tyres for wear and damage. Round here fragments of flint get embedded in the tyre and at some point will cause a pinhole puncture – so pick them out with a small screwdriver when you clean the bike.

Inspect the tyre for cuts – flints again! Open cuts will get shards of flint in them and cause punctures. Consider a blob of superglue or similar to close them.

Assess the level of wear, many makes of tyre have wear indicators. If you keep getting punctures that is also an indication you need new tyres!

To minimise the risk of punctures put 20-40ml of tubeless sealant in the inner tube which will seal small holes – you need inner tubes with removable valve cores to do this easily! Alternatively, be bold and go tubeless.

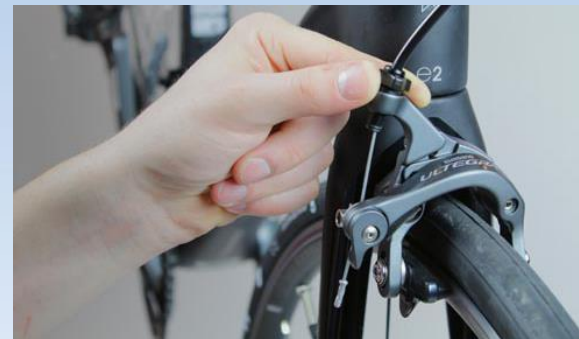
**Note:** If you use tubes with removable cores always tighten the core into the valve stem both on the bike and the spares you carry with you – modern hose connecting pumps will unscrew the valve core when you take them off!!



# Cleaning and Inspecting your bike – the brakes

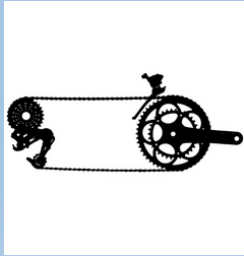
The brakes and brake blocks: take the wheels out of the frame and clean both the working mechanism and the brake blocks. Pick out any embedded bits of flint from the brake blocks; these are chewing up your rim! Clear the channels (if present) to maintain efficient braking. The brake blocks often have wear indicators moulded into them – either the channels and/or a line on the edges.

As the blocks wear you may want to adjust the cable to minimise the amount of lever travel.



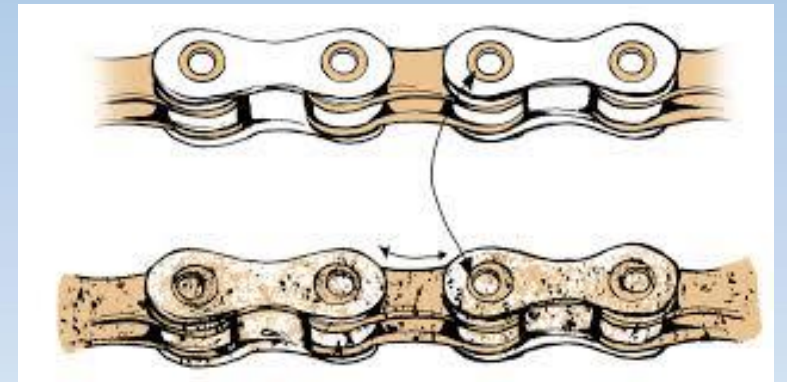


# Cleaning and Inspecting your bike – the drivechain



I generally clean the drivechain first as the muck from it gets spread everywhere as you brush the components and a second wash when doing the rest of the bike won't hurt!

Once clean you can check the various components for wear – replacing the chain regularly before it gets too worn will prolong the life of the cassette and chain rings.



Anything at or beyond the 0.75 percent reading means that you should change your chain immediately. If you are using a chain designed for ten or fewer gears, replace your chain as it nears the 0.75 percent mark. If you are using an eleven or twelve speed chain, replace your chain once it has reached 0.5 percent wear. Note – 1% wear is greater than 1 whole link in length!



# Cleaning and Inspecting your bike – the drivechain

Generally, the cassette should be replaced every second or third chain. However, this is just one strategy of many. Another is to ride until its unusable and replace both cassette and chain.



Poor gear changes and/or slipping are signs that one or more of the drivechain components needs replacing. When inspecting the cassette and chain rings take care to look across all of the individual rings/sprockets as they wear unevenly. Your favourite few gears wear out first!



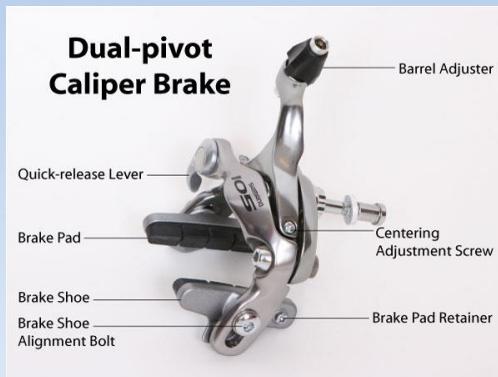
Note how the individual tooth shape changes with wear and as a consequence the space between the teeth



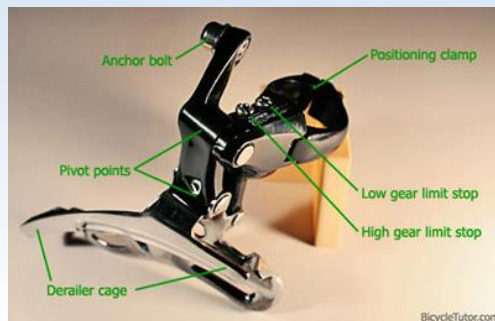


# Check that everything works as it should

- 1) Brakes – wheels spin freely without any rubbing on the brake pads, the lever action is smooth and easy and that there is only a small amount of travel to bring the pads into contact with the braking surface.
- 2) Gears – action is free and needs only a small force to operate between sprockets at the rear and chain rings at the front. The gears change smoothly across the entire cassette for each chain ring. There is no rubbing on the derailleur cage at the extremes of the gears.



Both gears and brakes are generally cable operated. There is always some part of the cable open to the muck that comes off the roads. Water, grit, dust etc can get into the cable sheath and can both accelerate the wear and make the operation 'sticky'. Cables don't stretch – the end fittings/sheath wear or bed in! A regularly service can make all the difference to how well your bike works.



# Check that your wheels are 'true'

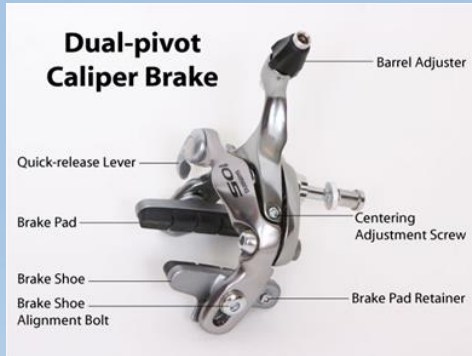


When you spin your wheels to check that the brakes don't rub you may find that they touch in one or maybe two places and that the wheel seems to 'wobble'. This means that the wheel is no longer 'true', ie it is slightly buckled. To ensure efficient and effective braking the wheel needs to be re-trued or replaced (depending on how bent it is and how worn the rims are).

Going through a pot hole is the main cause of out of true wheels. If you got a 'snakebite' puncture as a result of a pot hole there is a good chance the wheel has been knocked out of true as well!



# Check that everything is installed properly



Taking a wheel out of the frame – open the brake calliper quick release lever to increase the gap between the brake pads; this makes it easier to get the tyre past the brakes. Open the axle quick release lever through 180deg. Unscrew the nut opposite until properly loose. The wheel will now drop out or may require a slight thump to push it past the brake pads. Putting the wheel back in the frame – reverse the above procedure but make sure that a) you have the axle fully seated in the drop outs, b) that you tighten the axle quick release and fully close the lever (and that it is positioned behind the fork) and finally, c) that you fully close the brake quick release lever



Note – it is often best to put the wheels back into the frame without fully tightening everything. Put the bike on the ground, loosen off the quick release and let gravity ensure you have the axle properly seated in the drop outs. Then full tighten the quick release.





# Finally



Check that anything that is bolted, screwed, strapped or otherwise mounted to the bike hasn't come loose with usage.

Mudguards and bottle cages often cause problems mid-ride when they come loose!

And last of all, check the tyre pressures and pump them up if needed; a track pump makes getting them up to pressure a lot easier.



# Questions



If your bike is now in this many pieces you've gone too far!

