Basic bike cleaning and maintenance

By **Cheang Yew Kee**

Riding trails in the tropical forest is the fastest way to wear out your new shiny mountain bike. It will be a place where new bike parts will disintegrate almost as soon as you start to ride them. Why is it so good at eating up our bikes? A major factor is our climate. We have monsoon twice a year and tropical storm almost every other week. Water, sand and mud will create a very efficient grinding paste that will wear out the chain, cranks, cassette, brake pads, rims, bushings, bearings and etc. It takes only one muddy ride with no follow up cleaning and lubing to ruin the bike.

As the old saying goes, prevention is better than cure and that is certainly true in the case of slowing down everyday wear and tear on your bike. The first thing to do is to clean your bike immediately after a wet or soggy ride. The faster you get the corrosive and abrasive stuff off, the less time it has to do the damage. How to clean your bike properly? What do you need?

1. The Wash Kit

It is easier to clean the bike if you have the proper tools. A bucket, a chain cleaner, a hard bristle brush and another with soft bristle. You will need degreaser or kerosene, detergent, chain lubes and fork lubes. A low-pressure hose will be good. Jet washer is fine, but a carelessly aimed jet can dislodge more than the grime, like the grease from your bearings.

2. Start Off

Lean your bike against the wall or use a bike stand. Begin with the drivetrain. Use your chain cleaner and degreaser to clean the chain. After that, use the hard bristle brush to clean the cassette, cranks set, derailleurs and brakes. When you are done, wash off the degreaser. One soapy mixture that I always use, mix 3 tablespoon of dish washing liquid, 3 tablespoon of detergent with a liter of water. Use this mixture to wash off the degreaser. Remember to hose down the mixture after this.

3. Lather

Once the drivetrain has been cleaned, it is time to clean up the frame. Apply a coat of degreaser and wait for a few minutes for it to react. Follow up by using the soapy mixture to clean the bike, starting from the top. Remember to clean the wheelset and the underside of the saddle too. For hard to reach areas use a brush. Once that is done, rinse away the suds with a low pressure hose.

4. Drying and lubing

Wipe the bike with a rag. This will accelerate the drying and avoid water marks if left to air dry. Now lube the chains. Start by applying a small amount of lube to the chain, one link at a time. Rotate the crank and continue until the entire chain is lubricated. Spin the wheel, shifting the gears up and down to even out the lube. When you have finished, remove the excess lube. Remember to lube the suspension fork and the rear suspension shock. Do not use spray like WD40 for lubricating the shocks. Drip a little bit of fork oil or engine oil around the seals of the fork or shock to prevent the rubber seals from drying and cracking. Remove the excess.

Types of Lubes

This is a large topic but we can generally classify bicycle lubricants as dry lubes or wet lubes.

Dry Lubes

Dry lubes work best in dusty environment as they are designed not to attract and hold onto dirt but is useless when it gets wet. It falls flat with moisture. Most dry lubes are wax based. Once applied, it will set dry on the chain to create a protective layer, but it has to be applied regularly to maintain good performance. Dry lubes have little film strength and will just fall off when it the chain gets wet. Another type of lubricant that you could use for your mountain bike is the motorcycle chain lubricant. The lubricant is suspended in a volatile solvent. This allows the lubricant to penetrate easily into the chain and then gel inside the chain when the solvent escapes. The result is a chain that is dry but sticky.

Wet Lubes

Wet lubes are better for wet environment as they are designed to stay onto the chain even when water is present. Wet lubes are usually oil or grease based. For wet lubes, engine oil or automotive grease is good enough for chains. Wet lube may be fine for road bike but these substances attract a lot of dirt in the trails. One time tested method of lubing a chain is to soak it for a few hours in a pan of hot oil like the engine oil. This relatively antiquated practice has questionable real world value. It will work well only if your chain can come on and off your bike as easily as your water bottle .

Another reason to keep your drivetrain clean

A motorcross team once did a dyno test by using the same engine, but one test was with a dirty chain and another one with a clean and lubricated chain. The result was a drop of 12 percent in horsepower output with the dirty chain. Although mountain biking is not the same as motorcross, this result should be good enough for you to keep your drivetrain clean and well lubricated. One thing for sure, a clean and lubricated drivetrain will last a lot longer. Gear shifting will be smoother and 'chainsuck' will be non existent.

Drivetrain worn out

When is the right time to replace the parts? The advice given below should only be used as a guide. The final decision is yours.

Chains

A new chain measures 12 imperial inches over 12 links. Replace the chain if it stretches over 12 1/8 inches.

Cassette

A new cassette should last for two chain changes. Replace if your new chain keeps skipping and slipping.

Chainrings

Once the teeth of your chainring starts to look like the teeth of your saw or when it loses some of its teeth, it is time to replace them.

Derailleurs

When there is sign of wobble, or the jockey wheel does not turn freely, replace it.

Bottom Bracket

Most modern bottom bracket is of the 'fit and forget' type and should last a long time. Grinding, banging, wobbling means it is time for a replacement.

Shifters and cables

When a simple cleaning and lubing does not restore the smooth operation, replace the shifters. When the cable starts to fray, replace it.

Hubs

Slow grinding, wobbling, banging or creaking sound means that the hub has to be strip down and rebuilt. Remember to put in new bearings and fresh grease. If it is running on sealed bearings, pop in new ones.

We are not covering wear and tear on items like the fork, rear shock, brakes, tyres, headset that are not part of the drivetrain. We have not discussed the failures due to high impact loads involved in big drops during freeriding or downhill riding. These failures tend to be from one big impact rather than from cummulative wear and tear. If you want to go big, use burly components.

Note : This article is written based on the author's own experience, information that the author gathered from MBR, WMB, MBA and the internet.

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