BICYCLE MAINTENANCE CLINIC

The ABC's: Air, Brakes, Chain

Before every ride, be sure to check the "ABC's" to make your ride safer and help your bike last longer.

- **A is for Air:** Having properly inflated tires helps prevent flats. Check the sidewall of your tire for the recommended tire pressure. While you're checking the air, take the opportunity to ensure your quick-release levers and thru axles (if you have them) are properly tightened as well. Then, before you ride, make sure you have a spare tube/patch kit and pump with you.
- **B is for Brakes:** Squeeze your front and rear brake levers to make sure that the brakes engage properly and smoothly.
- **C is for Chain:** Look at your chain and all the gears. Keeping your chain lubricated and everything clean will ensure your bike shifts easier and the drivetrain (made up of the front chain rings, rear cassette, front/rear derailleur and chain) last longer.

Securing Bike Bolts

Bicycles are held together by dozens of nuts and bolts. Maintaining a "tight ship" is important because loose (or improperly tightened) bike parts can lead to serious wear and tear, cause poor performance and create a safety hazard.

When tightening bike bolts, consult your owner's manual for proper torque specs. Over-tightening can lead to component damage or failure.

Cleaning and Lubricating Your Bike

A regular schedule of maintenance (monthly, weekly or more often depending on your type of riding) is important. If you spend a lot of time riding in wet, muddy conditions, or if you ride hard, fast and often, plan to clean your bike more frequently.

Keeping your bike parts properly cleaned and lubricated is crucial for good performance. Lubrication protects moving parts from excessive wear caused by friction, prevents them from "freezing up," and helps keep rust and corrosion at bay.

Be careful, though. Over-lubricating can lead to poor performance and component damage (excess lubricant will attract dirt and other abrasive particles). As a general rule, excess lube should always be carefully wiped away before the bicycle is ridden.

Tip**:** When lubricating a number of parts at once, remember the order in which you apply the lubricants. Wiping off excess lube in the same order will give the lubricants time to soak in.

Basic Supplies

These simple items address most cleaning and lubing tasks:

Clean rags: Keep plenty of these on hand for grease, oil and wax-related tasks and for general cleaning and drying.

Brushes: Have several sizes and shapes to get into hard-to-reach places to remove the grime that rinsing alone can't get. Old toothbrushes work great.

Water: When used carefully, water can be a handy tool, but be careful here. Water, especially when coming from a high-pressure hose can cause damage to sensitive bearing systems throughout your bike.

Soap / general cleaner: Use diluted dishwashing soap or pre-formulated bike wash cleaner for frame cleaning.

Degreaser: A bike-specific degreaser (avoid kerosene or turpentine) will clean up gummy parts like your bike chain. Choose a solvent that is easy on the environment (and you). Dispose of all solvents properly.

Chain lubricant: Properly lubricating your chain helps extend the life of your drivetrain. Always apply bicycle-specific lube oil to a clean chain.

There are two types of lube: wet or dry. Wet lube is best to use when you'll be riding in wet conditions. It strongly adheres to the drivetrain and is less likely to rinse off in rain. That said, dirt and grit will also stick to it, so be sure to wipe off excess lube.

Dry lube excels in a dry environment. Dirt and grit stick less to dry lube, but dry lube does rinse off easily if you find yourself riding in the rain.

Bike stand: This will allow you to position the bike at a comfortable height while you're working on it. It will also allow you to turn the pedals or remove the wheels so you can clean all the moving and hard-to-reach parts.

What to Clean

Most dirty bike components can be cleaned by wiping them carefully with a damp (or dry) rag. Other components require occasional brushing, scrubbing and re-lubrication.

Your drivetrain (front chain rings, rear cassette, front/rear derailleur and chain) deserves the most frequent attention.

Cleaning Your Drivetrain

The chain: Your chain is your bike's most "at risk" lubricated part. Clean and lube it frequently to slow the rate of chain wear.

To clean chains that don't have too much built-up grime, simply use a rag and degreaser. For really dirty chains, you may want to use a chain cleaning device which is more thorough and a lot less messy.

After the degreaser has dried, apply drops of lube slowly onto to the chain, getting some on each link. Let the lube dry then wipe off any excess lubricant so it doesn't attract more dirt.

In general, lubricate your chain whenever it squeaks or appears "dry." Lubing after wet rides will help keep your chain from rusting.

Front chain rings and rear cassette: Scrub the surfaces with a brush and degreaser while turning the pedals. If there's a lot of built-up grime, use rags to wipe away any remaining dirt and "floss" between the gears.

Brake and derailleur levers: Apply a drop or two of lube to the lever pivots and the barrel adjusters periodically to keep them functioning properly.

Brake and derailleur cables: Check them frequently (especially in wet conditions) and re-lubricate occasionally so that they can effectively translate your commands to the component groups.

Brake and derailleur assemblies: These consist of a number of small moving parts. Keep an eye on their arms, wheels and pulleys so they don't bind up or become rigid. Apply lubricant to the pivot points.

STEP BY STEP ADJUSTING THE REAR DERAILLEUR

Step 1

Put the gear lever into top gear, turn the pedals and allow the chain to go onto the smallest cog on the cassette. If there is a cable adjuster on the gear lever body, or the derailleur body, screw it almost all the way in (clockwise).

Step 2

Undo the cable-securing bolt on the derailleur and move the cable out of the way.

Step 3

Turn the pedals while using your other hand to manually push the rear derailleur in towards the rear wheel. If the derailleur's inner adjusting screw is correctly adjusted, the chain will only travel onto the largest cog and go no further.

Step 4

If it goes beyond that cog and falls into the spokes, turn the derailleur adjusting screw in (clockwise) and repeat step 3. If the chain does not sit comfortably on the biggest cog, unscrew the adjusting screw a little and try again.

Step 5

Once you're happy with that, allow the derailleur's spring to push the derailleur outwards onto the smallest cog. Again if the chain comes off, or does not sit properly on the smallest cog, turn the other adjusting screw to move the derailleur's position.

Step 6

When the derailleur's travel goes comfortably between the high and low cogs on the cassette, refit the gear cable and do up the securing bolt.

Step 7

Using the gear lever, go through all the gears several times. If the derailleur is slow to go into the lower gears, unscrew the cable adjuster on the derailleur body.

If it is slow to go into the higher gears, screw in the cable adjuster. Re-check that all the securing bolts are tight and go for a gentle test ride.

STEP BY STEP ADJUSTING THE FRONT DERAILLEUR

Step 1

Put the gear lever into the lowest gear, and if there is a cable adjuster on the gear lever body, screw it almost all the way in. Undo the cable-securing bolt on the operating lever of the derailleur and move the cable out of the way.

Step 2

Check that the front derailleur is parallel to the chainring, and there is a gap of around 2mm between the top of the largest chain wheel and the bottom of the outer plate of the front derailleur. If not, loosen the fixing clamp and realign the derailleur.

Step 3

With the chain on the biggest cog at the rear, adjust the ‘inner’ adjusting screw so that when the chain is on the smallest chainring it sits in the middle of the derailleur side plates.

Step 4

Now with the chain on the smallest cog on the rear cassette, pedal the bike with one hand and pull the front derailleur so that the chain goes onto the largest chainring at the front, and is again in the middle of the derailleur plates. You achieve this by screwing or unscrewing the ‘outer’ adjusting screw on the derailleur body.

Step 5

Let the derailleur return to its position over the smallest chain ring. Refit the cable, and tighten the securing bolt.

Step 6

With the bike held off the ground, and the chain now on the largest cog at the back, test the front derailleur by moving the chain between the smallest and next chainring using the gear lever. Do this with the crank arm at 12 o'clock, 3 o'clock, 6 o'clock and 9 o'clock, so that any slight bend in the chainring becomes apparent. If the chain falls off the smaller chainring, adjust the 'inner' derailleur adjusting screw so that the derailleur does not go so far in. When you've done this successfully, and with the gear lever back in '1' or 'low' and the chain on the small chainring, loosen the cable securing bolt and take up the slack on the cable.

Step 7

Put the chain onto the smallest cog on the rear cassette. If you have a three-ring crankset, repeat the procedure above, this time going from the middle chainring to the biggest chainring. If the chain falls off the front of the chainring, adjust the 'outer' derailleur adjusting screw, so the derailleur does not move quite so far out.

Step 8

If you find that the derailleur is slow changing up from small to big chainring, unscrew the cable adjuster on the gear lever body a little. Just be sure that is does not then become slow changing down. Recheck that all the securing bolts are tight and go for a gentle test ride.

HOW TO CHECK YOUR CHAIN FOR WEAR

Use the link below to view a video on this subject:

https://youtu.be/XRW9UXEuxr0