


Bike Maintenance 101: Drivetrain Cleaning

Facilitator Guide

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Date: TBD



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Workshop Information

Workshop Description

Joe's Bike Shop offers year round bike maintenance courses to anyone in the community that is interested in learning how to take care of their bike. The *Bike Maintenance 101: Drivetrain Cleaning* workshop is an hour long workshop is an interactive session where learners will gain the skills and knowledge to clean and maintain their bikes drivetrain.

Course Objectives

Upon completion of this workshop, learners will be able to:

- Identify the components that make up a bike's drivetrain.
- Explain the importance of maintaining the drivetrain.
- Identify the required materials to clean a drivetrain.
- Describe the difference between wet chain lube and dry chain lube.
- Explain the correct method of applying chain lube.
- Apply degreaser to the drivetrain without damaging the bike's bearings.
- Scrub dirt and grime off of the bike's drivetrain.
- Rinse degreaser off of the bike using appropriate water pressure.
- Inspect bike chain for thorough cleaning.
- Properly dry the drivetrain components.
- Apply chain lube to the bike chain with minimal waste.

Target Audience

This workshop is open to anyone that is interested in learning how to maintain their bike's drivetrain.


Course Length

1 hour

Preparation

Before the start of the workshop, review the sign-up sheet and set up the workshop.
The following equipment is needed:

- Bike stands for each learner
- Table or workbench for each learner
- Chairs for each learner
- Instructor demo bike
- Extra bikes (in case learners did not bring their bike)
- Materials listed in the *Materials and Supplies*

	Note: Ensure that all materials are laid out on the workbench.
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Materials and Supplies

The following materials are needed to complete the workshop.

Quantity	Item
1 per learner	Degreaser
1 per learner	Bike cleaning brush set
2 per learner	Microfiber towel
As needed	Wet chain lube
As needed	Dry chain lube
1 per learner	Large spray bottle filled with water
1 pair per learner	Nitrile gloves

Introductions

DO: Welcome the learners as they enter the workshop. Instruct and assist learners to secure their bikes on the bike stand. If learners did not bring a bike, provide a spare bike for them.

DO: Introduce yourself. Tell learners about your background as a bike shop owner, a little bit about your store, and its offerings.

SAY (in your own words): Today you will learn how to clean the drivetrain on your bike.

ASK: Does anyone know why it is important to clean your bike's drivetrain?

Possible answers:

- To help your bike's efficiency.
- To ensure your bike can shift properly.

SAY (in your own words): Cleaning your bike's drivetrain is one of the cheapest things you can do to ensure that your bike runs smoothly. The drivetrain is the heart and soul of your bike. If you don't clean your bike's drivetrain, all of the accumulated dirt and grime will affect how well your bike runs and can even damage your bike.

Drivetrain Components

DO: Attach your bike to the bike stand. Ensure that learners can see your bike.

ASK: Before we begin, can anyone tell me what components make up the drivetrain?

Possible answers:

- Chain
- Cassette
- Chainring
- Crankset
- Derailleur
- Spoke

SAY (in your own words): Every bike's drivetrain will consist of a chain, a chainring, and a crankset. Depending on the type of bike you have, you may have multiple chainrings.

If you have a road bike or mountain bike, you will have a cassette on the rear wheel. You will also have front and rear derailleurs. Derailleurs are the mechanism that helps move your chains up and down the chainring and cassettes as you pedal (or push down on the crankset) and shift gears.

If you have a fixed or single-gear bike, you will have a single spoke on the rear wheel, instead of a cassette. These bikes are easier to maintain!



Note: Point to each component on the bike as you are sharing.

Task 1: Apply Degreaser

SAY (in your own words): Now that we know the components that make up the drivetrain, let's begin cleaning the bike's drivetrain.

To remove the dirt, grime, and old lube, we use degreasers. In our shops, we use biodegradable degreasers. If you are environmentally conscious, I recommend using biodegradable degreasers.

There are many types of bike degreasers available. On your workbench, you will see that the degreaser is in a spray bottle. Degreasers also come in squeeze bottles and aerosol cans. If you do use aerosol can degreasers, make sure that the degreaser does not get into the bearings of your bike as this can cause premature wear and damage to your bike.

Watch as I demonstrate how to apply degreaser to the bike.

Facilitator Demonstration



Note: During your demonstration, verbalize what you are doing. For example, say: "I am spraying degreaser on the cassette. I am making sure that I am spraying all over the cassette".

1. Put on appropriate work gloves.
2. Spray degreaser all over the drivetrain components.
3. Wait a couple of minutes for the degreaser to set in.
4. Using a brush, scrub dirt, grime, and old lube off the drivetrain.

Note: If your bike has hydraulic disc brakes, ensure that you do not touch the rotor as dirt from your hands can contaminate and damage the effectiveness of your brakes.

5. Rinse the degreaser off your bike by spraying water over your bike's drivetrain.
6. Grab a microfiber towel, wrap the towel over the bottom of the chain, and pedal backwards.

Note: If grime and dirt are visible on your towel, repeat the degreasing process.

7. Dry off the rest of your drivetrain.

Learner Practice



Walk around the room as the learners practice degreasing their bike's drivetrain. Offer any assistance and corrections to the learners. If you notice learners making similar mistakes, gather the class and provide any corrections as a group.

After learners complete task 1, gather the group and debrief the activity. Answer any outstanding questions learners may have.

Task 2: Apply Chain Lube

SAY (in your own words): After we clean the drivetrain, we have to apply chain lube. Before we can do that, the bike must be completely dry. If you apply lube on a bike chain that is wet, water will dilute the lubricant.

There are different types of chain lubes. The two most common types are dry chain lube and wet chain lube. Dry chain lube is used if you are riding in dry conditions. If you frequently ride in wet, rainy conditions, or like to ride off-road, use wet chain lube.

ASK: Where do you usually bike?



Note: Depending on the answer learners give you, recommend them to use either wet chain lube or dry chain lube for the activity.

Facilitator Demonstration



Note: During your demonstration, verbalize what you are doing. verbalize what you are doing. For example, say: “I am applying chain lube on each roller on the chain. You do not need to apply lube all over the chain. The links, pins, and rollers should be your focus areas”.

1. Ensure that the chain is dry.
2. Apply a small amount of lube on each roller on the chain.
3. As you are applying lube, simultaneously pedal backward slowly, about 5 revolutions.
4. Grab the other clean microfiber towel, wrap the towel over the bottom of the chain, and pedal backward to wipe the excess lube.

Learner Practice



Walk around the room as the learners practice applying chain lube. Offer any assistance and corrections to the learners. If you notice learners making similar mistakes, gather the class and provide any corrections as a group.

After learners complete task 2, gather the group and debrief the activity. Answer any outstanding questions learners may have.

Wrap-up

SAY (in your own words): Congratulations! You have successfully cleaned your bike's drivetrain! How easy was that? As you were going through this workshop, you may have wondered how often you would have to clean your drivetrain. The answer to that question is that it depends.

In general, clean your bike and re-apply lube whenever your bike is dirty. That means if you are someone who mountain bikes every weekend, then you would do it once a week. However, if you are someone who rides indoors, the general advice is to clean and re-apply lube every 150-200 miles. You will also know when it is time to clean and re-apply lube if you notice that your chain is making rattling noises. This means that the rollers in the chain are dry.

If you do not have any other questions for me, I would like to thank you again for coming. If you enjoyed today's class, we have other bike maintenance workshops throughout the year. You can find the schedule and sign-up sheet on your way out.