



# Harley-Davidson Sportster Evolution Oil Change

Changing the Engine (crankcase) oil and filter.

Written By: Eric Essen



---

## INTRODUCTION

Although there have been some minor changes to the Sportster over the years, the oil change procedure for all 1986-present models is the same. This guide uses a 1998 Sportster as an example.

---

### TOOLS:

- [Drain Pan](#) (1)
  - [Flathead Screwdriver](#) (1)
  - [Funnel](#) (1)
  - [Oil Filter Wrench](#) (1)
-

## Step 1 — Preparation



- Securing the bike in an upright position allows for easier access to the drain tube.

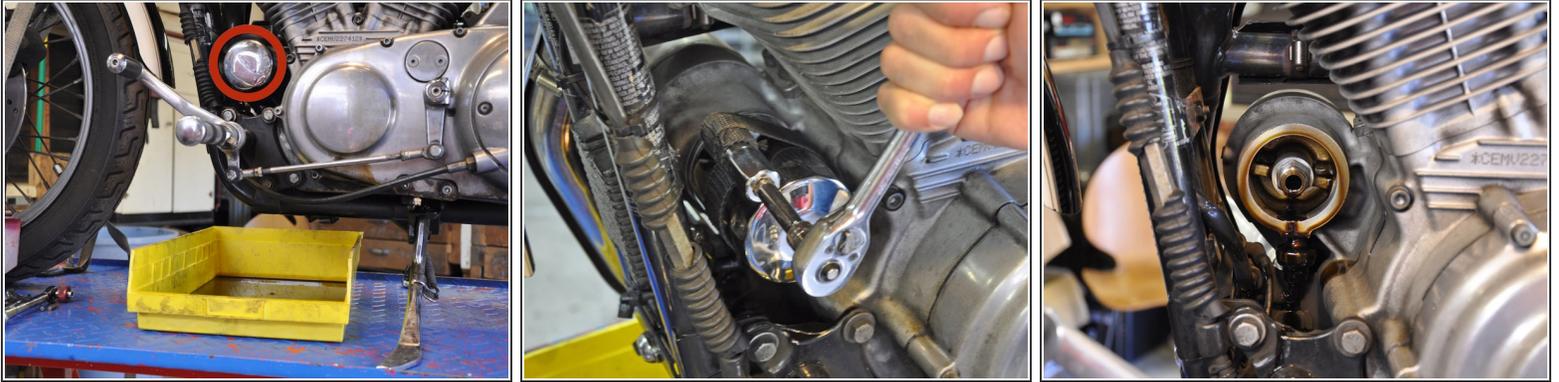
 Always make sure your work area is clean and you have plenty of room to work safely. Never start or run your motorcycle indoors.

## Step 2 — Draining the Oil



- ⓘ Unlike most vehicles, the Harley Sportster Evolution Engine has an oil drain tube, not a plug.
  - This tube is attached by a hose clamp to a nipple welded to the frame.
- Loosen the hose clamp with a Flathead Screwdriver. Do not remove the tube until you have your drain pan in position.
- ⓘ Removing the cap/dipstick from your oil tank at this point may help your oil drain faster.
- Pull the hose free from it's nipple and allow the oil to drain into your drain pan.
- When the oil slows to a drip, replace the hose. Do not tighten the clamp yet, we will return for that later.

### Step 3



- The oil filter is located at the front of the engine, between the frame downtube and front cylinder.
- ⓘ Move the oil pan to the front of the bike, directly underneath the oil filter.
- Remove the oil filter. This may require an oil filter wrench.
- ⓘ If you don't have an oil-catcher, the oil will run down the frame, and get on some parts of the bike. There is no easy way to prevent this, so just wipe it down when it's done dripping.

### Step 4 — Installing the New Oil Filter



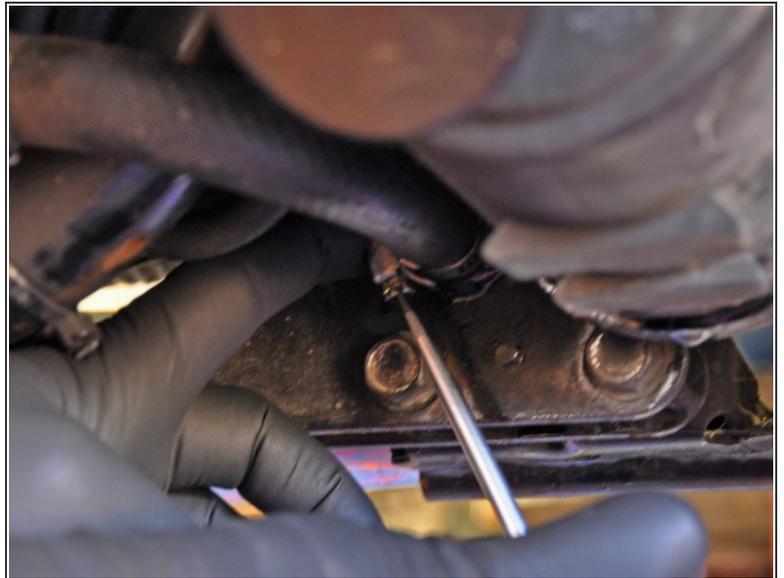
- Open 1 quart of oil. Pour it into the filter until the filter is about 1/2 full.
- Apply a small amount of clean oil to the rubber gasket on the new oil filter.
- Wipe down the oil filter mounting area, and any oil residue that has run down onto the motorcycle.
- ⚠ Make sure that the old gasket came off with the filter, and you have a clean smooth surface to install the new filter on.

## Step 5



- Carefully thread your new oil filter into place, turning it in a clockwise direction. Do not overtighten your filter. Only turn the filter a 1/2 turn past the point where you start to feel resistance from the gasket contacting the engine.

## Step 6 — Re-installing the Drain Tube



- Move the drain pan back underneath the oil drain tube. By this time more oil will have collected in it. Remove the tube again, and allow it to run out until it is just a light drip.
- Reinstall the oil drain tube on its nipple, tightening the hose clamp with a flathead Screwdriver.

## Step 7 — Adding New Oil



- Pull the oil cap/dipstick off of the oil tank.
  - ⓘ Some models will require the cap to be twisted first, then pulled. If you are not sure what model you have, work carefully and gently, making sure to not damage anything.
- Using your funnel, slowly pour 3 quarts of oil into your oil tank.
  - ⓘ Although the Evolution engine holds up to 3.5 quarts after a rebuild or when filled new, only 3 get replaced during the oil change.
- Use the oilcap/dipstick to check your engine oil level (holding the bike level if you have been working with your side-stand). Your oil level should be kept between the 2 dipstick marks. After refilling with 3 quarts it should be right to the top one.

It is a good idea to start your engine and let it run for a few minutes. Check your drain tube and oil filter for leaks. Recheck your oil level, and adjust if needed.