

How to Take an Oil Sample

Samples need to include fluid that best represents the oil circulating through the system during normal operations. Oil analysis kits are available to make sampling convenient and simple. These kits include cap, tubing, sample bottles and paperwork with preaddressed shipping labels.

Use the following tips to capture the best sample possible.

- ✓ Make sure the sample bottle is clean and free of contaminants.
- ✓ Fill out all equipment and fluid information completely and accurately on paper or electronically.
- ✓ Include the time/distance on both the equipment and the oil.

Use the steps below to pull the best oil sample from your equipment.



Sampling with a Vacuum Pump

The vacuum pump is used to extract samples from a dipstick or non-pressurized system.

Step 1 – Have the equipment being sampled at or close to normal operating temperature. Place clean, dry, lint-free cloth on a nearby surface and lay out sampling tools. Remove dipstick and place on the cloth. Lay the tubing along the length of dipstick and make a mark where the tube meets the top of the stick. Measure 6 inches (15 cm) above the mark and cut the tube.

Note: If using a sample port without a dipstick, measure the outside of the reservoir tank, measure from the top of the port to halfway down the tank, place a mark at that length from the end of the tube, and cut the tube 6 inches above the mark.

Step 2 – Insert the tube through the head of the vacuum pump and tighten lock ring. The tube should extend about 1 inch (3 cm) beyond the base of the vacuum pump head. Screw in the sample bottle to the bottom of the vacuum pump and tighten securely.

Step 3 – Place tube into the reservoir. To avoid drawing settled debris into the sample, only insert the tubing until the mark from Step 1 is flush with the top. Do not allow the tubing to contact the bottom of the sump.

Step 4 – Push and pull the vacuum pump plunger a few times to start the suction. Continue pumping until sample bottle is $\frac{3}{4}$ full. Hold the pump upright and do not overfill the bottle to avoid contaminating the vacuum pump.

Step 5 – Unscrew the sample bottle from the vacuum pump to break the suction and continue to hold the pump upright. Seal the bottle with the lid and tighten securely before wiping the outside of the sample bottle with the cloth.

See over for instructions on how to sample from a drain.



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Sampling from a Drain

A drain “catch” requires no equipment beyond a sample bottle, but it produces a sample that is least representative of the fluid circulating in the machine.

Step 1 – Have the equipment being sampled at or close to normal operating temperature, if possible. Open the drain and allow approximately 1/3 of the fluid drain.

Step 2 – Quickly move an open sample bottle into the oil stream. Fill $\frac{3}{4}$ of the bottle before removing it from the stream.

Step 3 – Screw the cap onto the sample bottle and tighten securely. Wipe the outside of the sample bottle thoroughly with a clean cloth.

Step 4 – Place one barcode label on sample bottle and the appropriate shipping label on the return package. Send the sample to the lab immediately using a trackable mail service.

