

The Proper Way to Take an Oil Sample

Computer science has long used the rule “garbage in, garbage out,” which means the quality of the information you receive is directly influenced by the quality of the information you provide. This is also true for oil analysis; how you take the oil sample will have a direct effect on the results of that sample’s analysis.

For instance, you always want to take a sample when the oil is warm. If you are using a vacuum pump to get the sample, warm oil is easier to pull up that narrow tube than cold oil is. Oil that is warm is also oil that has been recently circulated, so any particles in the oil will not have had much time to settle out.

If you are using a vacuum pump to pull a sample through the dipstick tube you should mark the sampling hose so that you insert the hose to the same length as the dipstick. This will ensure the hose reaches the oil, but does not go to the bottom of the pan. Oil pulled from the bottom of the pan will bring contaminants from the bottom of the pan with it, which will turn up in the oil analysis and make it seem as though the oil is circulating more contaminants through the engine than it actually is. This is also why taking an oil sample from the drain plug in the oil pan is not the best choice, and why an oil sample should never be taken from a used oil filter. Never use sample tubing more than once, and cut the sample hose at a 45-degree angle to make it easier to insert the hose down the dipstick tube.

The sample bottle you are using to capture the oil sample should be clean and dry. Also, don’t fill the sample bottle completely; leave some space at the top of the sample bottle to reduce your chances of pulling oil into the vacuum pump. This will also reduce the chances of your sample leaking during shipment.



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