

ENGINE GUARD™ Oil Analysis Program

Sampling and Label Information Guidelines

In order for used oil analysis to provide the maximum benefit to equipment users, it is very important that the sample is taken properly and the sample label information is complete and accurate. Following the sampling and label completion guidelines listed below will insure the used oil analysis provides the best information possible.

There are two ways to sample:

- Drain Plug Method - preferred for sampling during an oil change.
- Suction Pump Method - use this method when sampling prior to an oil change.

1. Drain Plug Method

- 1.1 Be sure component is at operating temperature prior to taking the sample.
- 1.2 Use a clean sample container provided in the sampling kit. Never reuse sample containers.
- 1.3 Take appropriate precautions to protect yourself from hot oil.
- 1.4 Wipe off the area around the drain plug to be sure it is clean and free from materials that can contaminate the sample. If the drain plug cannot be completely cleaned, use the Suction Pump Method (see back of page).
- 1.5 Take the sample in mid-stream after flushing approximately 1-2 quarts of oil from the drain plug.
- 1.6 Close the sample bottle cap tightly and wipe off **ALL** excess oil.
- 1.7 Complete the sample label information. For new units, entirely fill all label information. For existing units, component information is stored in the Engine Guard database. Any changes should be indicated, as well as unit number, miles/hours on the oil sample, component sampled, total miles/hours on the unit, oil change or sample, amount of make-up oil added, sample date, changes in product and/or viscosity grade and job location for customers with multiple locations.
- 1.8 Apply sample information label around sample bottle - not over the cap.
- 1.9 Mail sample immediately.

2. Suction Pump Method

- 2.1 Be sure component is at operating temperature prior to taking the sample.
- 2.2 Use a clean sample container provided in the sampling kit. Never reuse sample containers.
- 2.3 Take appropriate precautions to protect yourself from hot oil.
- 2.4 Always use new tubing for each sample.2.5 Tubing length should be as long as the dip-stick or long enough to touch the product if sampling from a check-hole plug.
- 2.6 Insert the tubing into the suction pump opening on the top of the bottle attachment and tighten the compression nut to secure the tubing. The end of the tubing should protrude from the bottom side of the bottle attachment plate approximately ½ inch.
- 2.7 Remove the cap from the sample bottle and screw the bottle into the bottle attachment plate on the pump until snug. Ideally, the end of the tubing should be at the full line on the bottle
- 2.8 Place the tubing into the component and pump the oil into the sample bottle. When the level in the sample bottle reaches the full line, pull the tubing from beneath the surface of the oil level in the compartment and let the excess drain back into the system. Remove tubing from the component, unscrew the sample bottle and discard the tubing.
- 2.9 Close the sample bottle cap tightly and wipe off **ALL** excess oil.
- 2.10 Complete the sample label information. For new units, entirely fill all label information. For existing units, component information is stored in the Engine Guard database. Any changes should be indicated, as well as unit number, miles/hours on the oil sample, component sampled, total miles/hours on the unit, oil change or sample, amount of make-up oil added, sample date, changes in product and/or viscosity grade and job location for customers with multiple locations.
- 2.11 Apply sample information label around the sample bottle - not over the cap.
- 2.12 Mail sample immediately.

Each of these two sampling methods will produce somewhat different oil analysis results. Because of this, use one or the other method consistently. Changing between methods can cause problems with trend analysis for the unit and/or component.

The more information you provide about your sample, the better we can assist you in monitoring your equipment.

Technical Service
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