

Tips for Taking A Good Oil Sample

Taking a Good Sample

1. Always bring the machine up to operating temperature in all compartments before taking samples.
2. Always sample gear compartments such as differentials and final drives first (use vacuum sampling only for compartments that do not oil pressure fed circuits).
3. Do not remove cap from sample bottle until the sample is due to be taken.
4. Clean dirt from around plugs and covers.
5. Extract sample from reservoir to bottle leaving a small air space in the bottle (do not completely fill the bottle).
6. Complete all details on the sample card. It is important that you include:
 - a) Machine details
 - b) Customer and contact details

- c) Oil type and grade
 - d) Component hours if different from total machine hours
 - e) Hour since last oil change.
 - f) Quantity of oil added since last change.
7. Package bottle and card ready for mailing to Komatsu CMS. Don't forget to complete all information areas on the Sample Information Form, and mark all relevant boxes. Add comments if repairs have been carried out prior to this sample.
 8. Repeat the process for other compartments.
 9. Mail immediately for quick results.

Note: Incorrect, incomplete or misleading information sample information will affect the accuracy of the diagnosis.

Vacuum Extraction Sampling Method

1. With the engine turned off and the machine made safe, install a clean piece of plastic tube through the head of the vacuum pump, allowing the tube to protrude about 25 mm past the base of the pump.
2. Install the bottle. Install a clean bottle onto the pump and tighten firmly.

Please turn over...



Tips for Taking A Good Oil Sample (Continued)

3. Cut the tube to length, so that the sample is taken from the lower section of the oil reservoir/sump taking care not to have the tube in contact with the base where residual matter can contaminate the sample. Cut to dipstick length if using dipstick tube to obtain an engine sample by this method. (Live sampling is the preferred method for engines.)
4. Fill the bottle to the "Fill to" mark (approx.80% full). Do not overfill sample bottles.
5. Remove the bottle and seal with the bottle cap immediately to prevent airborne or machine dirt contamination. Discard the used tubing.
Never re-use the bottle or tubing for another sample.
6. Periodically clean vacuum pump with solvent.

In-Line ("Live") Sampling Method

Engine should be at low idle for in-line live sampling with all machine oil circuits operational. Ensure that the transmission is in neutral with brakes engaged

and wheels chocked if required. It is recommended to have a "spotter" visible to the operator when conducting live samples. Contact your OH&S coordinator for local regulations.

1. Bleed off lines and valves using old sampling tools or other methods to flush the valve of any residual contaminants.
2. Cut hose to a suitable length.
3. Insert one end of the tube into the mating bottle cap. Allow inserted hose to protrude approx. 15mm past cap. Screw the cap onto a clean bottle.
4. Insert the plastic quick fill coupler to the other end of the tube.
5. Remove the dust cap from the valve. If the dust cap is lost or damaged, wipe the valve clean before extracting the sample.
6. Insert the quick coupler to extraction valve and hold, allowing oil to flow into the bottle until it reaches the "Fill to" mark (approx.80% full). Do not overfill sample bottles.

7. When the bottle is filled to the correct level, remove the extraction valve from the quick coupler and replace the dust cap to the valve.
8. Seal the bottle with the plain cap, taking care not to introduce air borne or machine dirt contaminants.

Never re-use the bottle or tubing for another sample.

Sample Kit Part Numbers

Vacuum Extraction Sampling Method

» KOWA-OILCM

» KOWA-OILNZCM

In-Line ("Live") Sampling Method

» KOWA-LIVECM

» KOWA-LIVENZCM

Contact Numbers

» Australia: 1300 566 287

» New Zealand: 0800 566 2878

The logo for Komatsu, featuring the word "KOMATSU" in a bold, blue, sans-serif font. The letter "I" in "KOMATSU" is stylized with a vertical line through its center.