

HYDRAULIC FLUID SAMPLING PROCEDURE

Overview

One of the most difficult but important jobs in hydraulic fluid maintenance is taking a proper and representative sample. In general the best way to do this is to always take the sample at the same place in the hydraulic system.

For properties like acidity, viscosity and moisture it generally doesn't matter where the sample is taken. However, when it comes to determining the cleanliness of a hydraulic fluid, it makes a big difference at what location the sample is taken.

- Fluid being pumped into a system with an auxiliary loop filter will have a different cleanliness compared to fluid at the bottom of the return side of the tank
- Fluid in larger hydraulic systems will have different cleanliness levels at the return and suction side of the tank

SAMPLING PROCEDURE

General hygiene and safety guidelines:

- Wear gloves
- Wear glasses
- Be aware of high fluid temperatures
- Be careful for high pressure fluid jets
- Sample should be taken by Customer technician (who is familiar with the system)

1. The preferred sampling point is the "minimess" connection

- Use a "minimess" connection and "minimess" tube to take the sample



2. Mark the sampling point to ensure same conditions

- Always take samples from this point
- If possible have the same person take the sample

3. Ensure that the inside of the sample bottle is completely clean and new

- Remove the lid, and leave it in a clean place, with the inner side facing up, to avoid any physical contact with dirt



4. Be sure that the system is working while the sample is taken

5. Tighten the sampling tube until a gentle flow emerges. Once the oil is flowing, do not stop, restart or change the oil flow during the flushing and sampling process

6. Flush the hose and connector, letting oil go through for approximately 10 seconds, before taking the oil sample. Do not change the oil flow during the whole process



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7. After flushing the connector and sampling tube, take an empty and clean new sample bottle to fill with the hydraulic fluid
 - Fill the bottle 25-30% and discard content to waste. Repeat this step once
 - Then fill the sample bottle
 - Do not change the oil flow during the whole process



8. It's important to avoid the contact among the connector of the sampling tube, the bottle, and the fluid. Avoid oil "splashing" resulting from too strong an oil jet
9. After sampling:
 - Put the lid on the "minimess" connector



- Close the "minimess" tube with the plastic caps and store the tube in a clean place



10. Close and properly tighten the bottle cap before sending it to the lab. Include on the sample bottle, the following information
 - Date
 - Company name and affiliate
 - Name/code of system
 - Fluid name
 - Name of sender