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PANOLIN HLP SYNTH

Notes on oil change intervals

Congratulations on choosing PANOLIN HLP SYNTH for your plant and machinery in future. You have opted for a synthetic hydraulic fluid based on saturated esters.

Depending on use and application, according to our present state of knowledge and taking into account the following conditions, PANOLIN HLP SYNTH **can greatly prolong oil change intervals up to lifetime filling** compared to mineral oil-based hydraulic oils.

1. Always use the viscosity class prescribed by the machine manufacturer.
2. Never mix PANOLIN HLP SYNTH with other readily biodegradable oils (such as HEES, HEPR, HETG or HEPG hydraulic fluids as per ISO 15 380).
3. When filling new and used equipment with PANOLIN HLP SYNTH, the remaining mineral oil portion must not exceed 5% of the total filling quantity.

DIN ISO

According to DIN ISO 15 380, no more than 2% mineral oil based product may be mixed with a readily biodegradable hydraulic fluid.

Manufacturer's instructions

Various machine manufacturers have set the limit for foreign oil content well below 5%. If such regulations exist, they must be followed. The manufacturer's instructions take precedence over the PANOLIN conversion guidelines.

Excerpt from the Blauer Engel, RAL-UZ 178 selection guidelines

«Hydraulic fluids must meet the minimum technical requirements according to DIN ISO 15 380».

4. In order to avoid particle contamination, it is generally recommended to fill the machine through a microfilter system.
5. To ensure the operational safety, reliability and durability of machines, plants and components throughout their service life, particle contamination (abrasion, dust, etc.) must be minimized to comply with cleanliness class 17/13 or 21/17/13 (according to ISO 4406). Manufacturer's instructions must be followed at all times.
6. Water content (e.g. condensation water) must not exceed the generally permitted maximum value of 0.1%.

7. The operating fluid must be regularly checked in a PANOLIN laboratory at the following intervals for usability:

Test interval after commissioning/oil change	Normal use	Heavy duty applications such as demolition hammer
1. Test after	50 working hours	50 working hours
2. Test after	500 working hours	250 working hours
3. Test after	1000 working hours	500 working hours
Subsequent tests every	1000 working hours or at least once a year	500 working hours or at least once a year

Oil samples (at least 500 ml) must be taken from the system at operating temperature. Clean, unused sample containers must be used. The oil samples must be clearly designated and sent promptly to:

PANOLIN Tec Center, CH-8322 Madetswil

Timely and correct oil sampling is the responsibility of the machine operator/owner.

8. Measures recommended by PANOLIN after the oil examination, such as dehydration, filtration or the like, must be implemented/adhered to. After implementation of the measures a further control sample must be taken and immediately sent to the PANOLIN Tec Center. Here again, timely and correct oil sampling is the responsibility of the machine operator/owner.
9. In case of problems, the machine operator/owner is in any case obliged to inform PANOLIN immediately by telephone or in writing:

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 info@panolin.com

Telephone messages must be confirmed immediately in writing. In addition, the machine operator/owner is in any case obliged to carry out an immediate oil sampling and to send the oil sample immediately to the aforementioned address of PANOLIN.

PANOLIN reserves the right to take an oil sample itself or to ensure that the sampling is carried out properly.