

OIL ANALYSIS REPORT

Sample Rating Trend

ISO

HOBBS CRUSHER 1

Hydraulic System Fluid TDH FLUID SAE 75W80 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| SAMPLE INFORM | IATION | method | limit/base | current | history1 | history2 |
|------------------|----------|--------------|------------|---------------|-------------|--------------|
| Sample Number | | Client Info | | KL0012509 | KL0012436 | KL0009909 |
| Sample Date | | Client Info | | 22 Jun 2023 | 25 May 2023 | 23 Mar 2023 |
| Machine Age | hrs | Client Info | | 0 | 7148 | 7084 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | ATTENTION | ABNORMAL | ABNORMAL |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >20 | 2 | 1 | 1 |
| Chromium | ppm | ASTM D5185m | >10 | <1 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | 1 | <1 | <1 |
| Lead | ppm | ASTM D5185m | >10 | <1 | 0 | <1 |
| Copper | ppm | ASTM D5185m | >75 | <1 | <1 | 0 |
| Tin | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 10 | 1 | <1 | 4 |
| Barium | ppm | ASTM D5185m | 10 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 10 | 1 | <1 | 2 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 100 | 2 | 9 | 16 |
| Calcium | ppm | ASTM D5185m | 3500 | 3048 | 2518 | 2112 |
| Phosphorus | ppm | ASTM D5185m | 1150 | 1175 | 1000 | 896 |
| Zinc | ppm | ASTM D5185m | 1150 | 1336 | 1173 | 1107 |
| Sulfur | ppm | ASTM D5185m | 5000 | 4638 | 3912 | 3519 |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >20 | 5 | 4 | 5 |
| Sodium | ppm | ASTM D5185m | | 1 | <1 | 2 |
| Potassium | ppm | ASTM D5185m | >20 | 3 | 1 | 2 |
| FLUID CLEANLIN | ESS | method | limit/base | current | history1 | history2 |
| Particles >4µm | | ASTM D7647 | | 14317 | 21157 | 32722 |
| Particles >6µm | | ASTM D7647 | >1300 | <u> </u> | <u> </u> | 4 343 |
| Particles >14µm | | ASTM D7647 | >160 | 24 | 35 | 26 |
| Particles >21µm | | ASTM D7647 | >40 | 3 | 7 | 5 |
| Particles >38µm | | ASTM D7647 | >10 | 0 | 0 | 0 |
| Particles >71µm | | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >17/14 | 1 8/12 | ▲ 19/12 | ▲ 19/12 |
| FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 2.25 | 0.35 | 1.85 | 0.92 |



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| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.1 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
| Visc @ 40°C | cSt | ASTM D445 | 48 | 54.9 | 52.3 | 50.2 |
| SAMPLE IMAGES | | method | limit/base | current | history1 | history2 |
| Color | | | | | | |
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