

OIL ANALYSIS REPORT

Sample Rating Trend

ISO

Machine Id ES17 Component Auxiliary Hydraulic System Fluid AW HYDRAULIC OIL ISO 46 (--- LTR)

DIAGNOSIS

Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 46. Please confirm. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

| | | | | Mar2024 | | |
|---|--------------------------|--|--|---|--|--|
| SAMPLE INFORM | ATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | WC0914604 | | |
| Sample Date | | Client Info | | 11 Mar 2024 | | |
| Machine Age | hrs | Client Info | | 0 | | |
| Oil Age | hrs | Client Info | | 0 | | |
| Oil Changed | | Client Info | | N/A | | |
| Sample Status | | | | ABNORMAL | | |
| CONTAMINATION | | method | limit/base | current | history1 | history2 |
| Water | | WC Method | >0.05 | NEG | | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185(m) | >20 | 3 | | |
| Chromium | ppm | ASTM D5185(m) | >20 | 0 | | |
| Nickel | ppm | ASTM D5185(m) | >20 | <1 | | |
| Titanium | ppm | ASTM D5185(m) | | 0 | | |
| Silver | ppm | ASTM D5185(m) | | 0 | | |
| Aluminum | ppm | ASTM D5185(m) | >20 | <1 | | |
| | ppm | ASTM D5185(m) | >20 | <1 | | |
| - | ppm | ASTM D5185(m) | >20 | 21 | | |
| | ppm | ASTM D5185(m) | >20 | 0 | | |
| | ppm | ASTM D5185(m) | | 0 | | |
| | ppm | ASTM D5185(m) | | 0 | | |
| | ppm | ASTM D5185(m) | | 0 | | |
| | ppm | ASTM D5185(m) | | 0 | | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185(m) | 5 | <1 | | |
| | ppm | ASTM D5185(m) | 5 | 1 | | |
| | ppm | ASTM D5185(m) | 5 | 0 | | |
| | ppm | ASTM D5185(m) | | 0 | | |
| | ppm | ASTM D5185(m) | 25 | <1 | | |
| - | ppm | ASTM D5185(m) | 200 | 27 | | |
| | ppm | ASTM D5185(m) | 300 | 322 | | |
| | ppm | ASTM D5185(m) | 370 | 361 | | |
| - ··· | 1-1-1-1 | | | | | |
| Sultur | mag | ASTM D5185(m) | | | | |
| | ppm ppm | ASTM D5185(m) ASTM D5185(m) | 2500 | 1005 <1 | | |
| Lithium | | . , | | 1005 | | |
| Lithium CONTAMINANTS | ppm | ASTM D5185(m) | 2500 limit/base | 1005 <1 current | | |
| Lithium CONTAMINANTS Silicon | ppm ppm | ASTM D5185(m) method ASTM D5185(m) | 2500 | 1005 <1 current <1 | history1 | history2 |
| Lithium CONTAMINANTS Silicon Sodium | ppm | ASTM D5185(m) | 2500 limit/base | 1005 <1 current | history1 | history2 |
| Lithium CONTAMINANTS Silicon Sodium | ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) | 2500 limit/base >15 | 1005 <1 current <1 <1 | history1 | history2 |
| Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLINE | ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 2500 limit/base >15 >20 limit/base | 1005 <1 current <1 <1 1 1 current | history1 | history2 |
| Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLINE Particles >4µm | ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) Method ASTM D7647 | 2500 limit/base >15 >20 limit/base >5000 | 1005 <1 current <1 <1 1 1 current ▲ 11041 | history1 history1 | history2 |
| Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLINE Particles >4µm Particles >6µm | ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7647 ASTM D7647 | 2500 limit/base >15 >20 limit/base >5000 >1300 | 1005 <1 current <1 <1 <1 1 1 current ▲ 11041 ● 1491 | history1 history1 history1 | history2 history2 |
| Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLINE Particles >4µm Particles >6µm Particles >14µm | ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) Method ASTM D7647 ASTM D7647 ASTM D7647 | 2500 limit/base >15 >20 limit/base >20 >5000 >1300 >160 | 1005 <1 current <1 <1 <1 1 1 current ▲ 11041 ● 1491 57 | history1 history1 history1 | history2 history2 |
| Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLINE Particles >4µm Particles >6µm Particles >14µm Particles >21µm | ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 | 2500 limit/base >15 >20 limit/base >5000 >1300 >160 >40 | 1005 <1 current <1 <1 <1 1 current ▲ 11041 ● 1491 57 16 | history1 history1 | history2 history2 history2 |
| Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLINE Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm | ppm ppm ppm ppm | ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 | 2500 limit/base >15 >20 limit/base >5000 >1300 >160 >40 >10 | 1005 <1 current <1 <1 1 1 current ▲ 11041 ▲ 11041 ● 1491 57 16 2 | history1 history1 | history2 history2 history2 |
| Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLINE Particles >4µm Particles >6µm Particles >14µm Particles >21µm | ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 | 2500 limit/base >15 >20 limit/base >5000 >1300 >160 >40 >10 | 1005 <1 current <1 <1 <1 1 current ▲ 11041 ● 1491 57 16 | history1 history1 | history2 history2 history2 |

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OIL ANALYSIS REPORT

| 4μm 6μm 14μm | | | FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 |
|---------------------|---------------------------------|------------|------------------------|----------|---------------|---|-------------------|----------|----------|
| | | | Acid Number (AN) | mg KOH/g | ASTM D974* | 0.57 | 0.39 | | |
| малалалалала Гтратт | | | VISUAL | | method | limit/base | current | history1 | history2 |
| Abnormal | | | White Metal | scalar | Visual* | NONE | NONE | | |
| | | | Yellow Metal | scalar | Visual* | NONE | NONE | | |
| | | | Precipitate | scalar | Visual* | NONE | NONE | | |
| | ******************************* | 1/24 | Silt | scalar | Visual* | NONE | NONE | | |
| | | Mar11/24 | Debris | scalar | Visual* | NONE | NONE | | |
| article Trend | | | Sand/Dirt | scalar | Visual* | NONE | NONE | | |
| | | | Appearance | scalar | Visual* | NORML | NORML | | |
| 4μm 6μm | | | Odor | scalar | Visual* | NORML | NORML | | |
| 14μm | | | Emulsified Water | scalar | Visual* | >0.05 | NEG | | |
| ormal | | | Free Water | scalar | Visual* | | NEG | | |
| | | | FLUID PROPERT | IES | method | limit/base | current | history1 | history2 |
| | | | Visc @ 40°C | cSt | ASTM D7279(m) | 46 | 40.7 | | |
| | | Mar11/24 - | SAMPLE IMAGES | 6 | method | limit/base | current | history1 | history |
| Number | | Mar | Color | | | | | no image | no image |
| ormal | | | | | | | | | |
| | | | Bottom | | | | | no image | no image |
| ormal | | | | | | | | | |
| | | | GRAPHS | | | | | | |
| | | 11 | Ferrous Alloys | | | 491,520 | Particle Count | | |
| | | 2 | iron chromium | | | 122,880 | | | |
| scosity @ 40 |)°C | | E 5- | | | 30,720 | Severe | | |
| bnormal | | | 0 | | | | | | |
| ise | | | /24 | | | 8 (per 1 m) s (per 1 m) s (per 1 m) | Aonormal | | |
| | | | Mar11 | | | of particles (per 1 m) 1724 480 | | • | |
| | | | Non-ferrous Metal | S | | pitured. 480 | 1 | | |
| normal | | | copper | | | jo 120. | | \ | |
| | | 10 | 20 - Ed | | | a 30. | | | - |
| | | M-11 | 10- | | | 8. | | | |
| | | | ⁷²⁴ | | | 47 2. | | | |
| | | | Mar11 | | | -2 Mar11/2 | | | |
| | | | Viscosity @ 40°C | | | -4 | ون Acid Number | 14μ 21μ | 38µ 71 |
| | | | 55 Abnormal | | | (^B H1.00- | Abnormal | | |
| | | | 50 − Base 45 − Base | | | (B/HO) Bw) | Base | | |
| | | | 40 Abnormal | | | a 0.50 | Abnormal | | |
| | | | 35 | | | | | | |
| | | | 22 | | | 4 4 | st | | |
| | | | Mar11/24 | | | Mar11/24 | Mar1 1/24 | | |

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