

Area

Framo [450310918]

Machine Id

HPU Deck Machinery Hyd. Power (S/N Sample Tag IH-65202-S1)

Component

Hydraulic System

Fluid

CASTROL HYSPIIN AWH-M ISO 46 (2200 LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

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 INFORMATION | | method | limit/base | current | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | | PC0080352 | PC | PC |
| Sample Date | Client Info | | | 09 Apr 2024 | 10 Mar 2024 | 15 Feb 2024 |
| Machine Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | Client Info | | | N/A | N/A | N/A |
| Sample Status | | | | ATTENTION | NORMAL | ATTENTION |

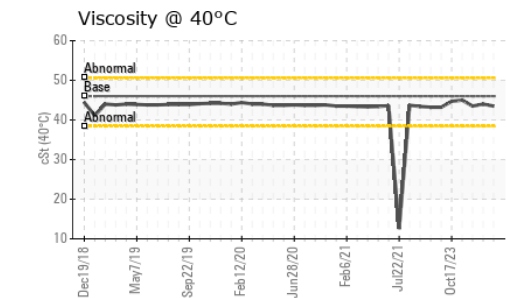
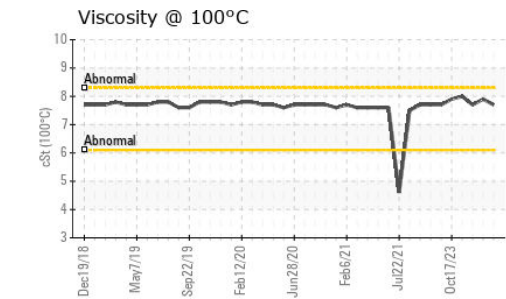
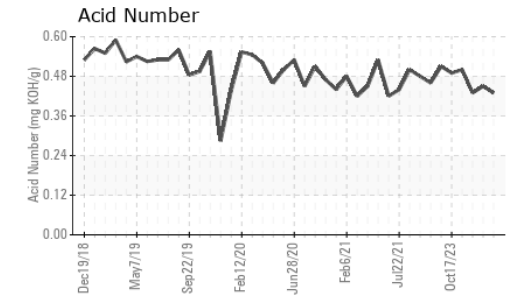
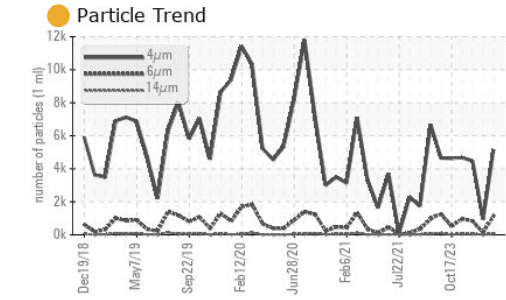
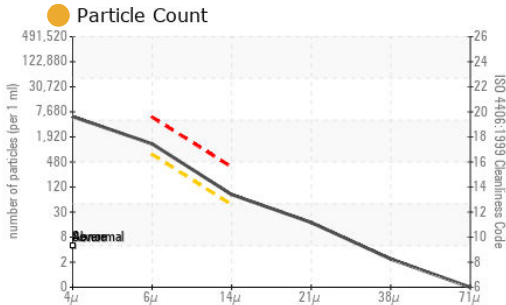
| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Water | WC Method | | >0.05 | NEG | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|---------------|------------|----------|----------|----------|
| PQ | | ASTM D8184* | | 0 | 0 | 0 |
| Iron | ppm | ASTM D5185(m) | >20 | 3 | 1 | 3 |
| Chromium | ppm | ASTM D5185(m) | >10 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) | >10 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >10 | 0 | 0 | <1 |
| Lead | ppm | ASTM D5185(m) | >20 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185(m) | >20 | 3 | 1 | 4 |
| Tin | ppm | ASTM D5185(m) | >10 | 0 | 0 | 0 |
| Antimony | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Beryllium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|---------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185(m) | | <1 | 0 | 0 |
| Barium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Calcium | ppm | ASTM D5185(m) | | 31 | 43 | 32 |
| Phosphorus | ppm | ASTM D5185(m) | | 321 | 326 | 335 |
| Zinc | ppm | ASTM D5185(m) | | 377 | 405 | 379 |
| Sulfur | ppm | ASTM D5185(m) | | 2183 | 1392 | 2370 |
| Lithium | ppm | ASTM D5185(m) | | <1 | <1 | <1 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|---------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185(m) | >15 | <1 | 0 | 2 |
| Sodium | ppm | ASTM D5185(m) | | <1 | 0 | 0 |
| Potassium | ppm | ASTM D5185(m) | >20 | 0 | <1 | <1 |

OIL ANALYSIS REPORT



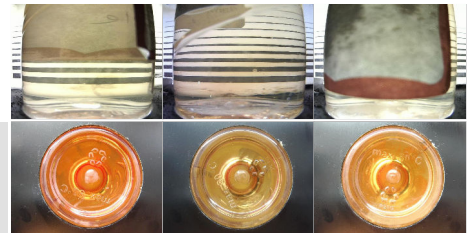
| FLUID CLEANLINESS | method | limit/base | current | history1 | history2 |
|-------------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm | ASTM D7647 | | 5151 | 943 | 4467 |
| Particles >6µm | ASTM D7647 | >640 | 1145 | 131 | 831 |
| Particles >14µm | ASTM D7647 | >40 | 70 | 9 | 57 |
| Particles >21µm | ASTM D7647 | >10 | 15 | 2 | 12 |
| Particles >38µm | ASTM D7647 | >3 | 2 | 1 | 1 |
| Particles >71µm | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >--/16/12 | 20/17/13 | 17/14/10 | 19/17/13 |

| FLUID DEGRADATION | method | limit/base | current | history1 | history2 |
|-------------------|---------------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g ASTM D974* | | 0.43 | 0.45 | 0.43 |

| 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* | >0.05 | NEG | .2% | NEG |
| Free Water | scalar Visual* | | NEG | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|----------------------|-------------------|------------|-------------|----------|----------|
| Visc @ 40°C | cSt ASTM D7279(m) | 46.0 | 43.5 | 44.0 | 43.5 |
| Visc @ 100°C | cSt ASTM D7279(m) | | 7.7 | 7.9 | 7.7 |
| Viscosity Index (VI) | Scale ASTM D2270* | 150 | 146 | 152 | 146 |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
| Color | | | | | |
| Bottom | | | | | |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0080352
Lab Number : **02631659**
Unique Number : 5772812
Test Package : MAR 2 (Additional Tests: KV100, PQ, VI)
Received : 26 Apr 2024
Tested : 29 Apr 2024
Diagnosed : 29 Apr 2024 - Kevin Marson

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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.