WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL NORMAL

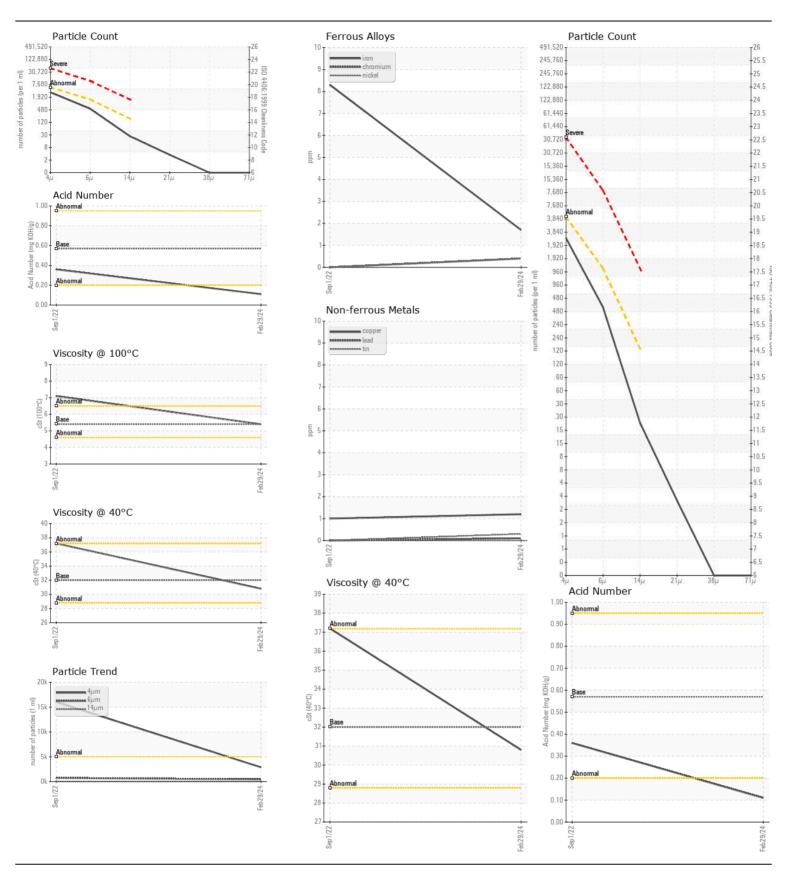
Machine Id

ERS-0017-BL

Hydraulic System

AW HYDRAULIC OIL ISO 32 (--- GAL)

| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|----------------------|----------|--------------|-----------|-------------|-------------------|----------|
| | Sample Number | | Client Info | | WC0679372 | WC0658252 | |
| Resample at the next service interval to monitor. Please specify the | Sample Date | | Client Info | | 29 Feb 2024 | 01 Sep 2022 | |
| component make and model with your next sample. | Machine Age | hrs | Client Info | | 1433 | 0 | |
| | Oil Age | hrs | Client Info | | 1433 | 0 | |
| | Filter Age | hrs | Client Info | | 0 | 573 | |
| | Oil Changed | | Client Info | | Not Changd | Not Changd | |
| | Filter Changed | | Client Info | | Changed | Changed | |
| | Sample Status | | | | NORMAL | ABNORMAL | |
| | | | | | | | |
| WEAR | Iron | ppm | ASTM D5185m | >20 | 2 | 8 | |
| | Chromium | ppm | ASTM D5185m | >10 | <1 | 0 | |
| All component wear rates are normal. | Nickel | ppm | ASTM D5185m | >10 | <1 | 0 | |
| | Titanium | ppm | ASTM D5185m | | <1 | 0 | |
| | Silver | ppm | ASTM D5185m | | 0 | 0 | |
| | Aluminum | ppm | ASTM D5185m | >10 | 2 | 0 | |
| | Lead | ppm | ASTM D5185m | >10 | <1 | 0 | |
| | Copper | ppm | ASTM D5185m | | 1 | 1 | |
| | Tin | ppm | ASTM D5185m | | - <1 | 0 | |
| | Vanadium | ppm | ASTM D5185m | | 0 | 0 | |
| | White Metal | scalar | *Visual | NONE | NONE | NONE | |
| | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | |
| <u></u> | | | Vioudi | | ···· | | |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | >20 | 1 | 1 | |
| | Potassium | ppm | ASTM D5185m | >20 | <1 | 1 | |
| The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. | Water | | WC Method | >0.1 | NEG | NEG | |
| | Particles >4µm | | ASTM D7647 | >5000 | 2879 | <u></u> 16009 | |
| | Particles >6µm | | ASTM D7647 | >1300 | 471 | 752 | |
| | Particles >14μm | | ASTM D7647 | >160 | 23 | 15 | |
| | Particles >21μm | | ASTM D7647 | | 3 | 3 | |
| | Particles >38µm | | ASTM D7647 | >10 | 0 | 0 | |
| | Particles >71µm | | ASTM D7647 | | 0 | 0 | |
| | Oil Cleanliness | | ISO 4406 (c) | | 19/16/12 | <u>^</u> 21/17/11 | |
| | Silt | scalar | *Visual | NONE | NONE | NONE | |
| | Debris | scalar | *Visual | NONE | LIGHT | NONE | |
| | Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | |
| | Appearance | scalar | *Visual | NORML | NORML | NORML | |
| | Odor | scalar | *Visual | NORML | NORML | NORML | |
| | Emulsified Water | | *Visual | >0.1 | NEG | NEG | |
| ······ | | | | | | | |
| FLUID CONDITION | Sodium | ppm | ASTM D5185m | | 0 | 0 | |
| | Boron | ppm | ASTM D5185m | 5 | 0 | 0 | |
| The AN level is acceptable for this fluid. The condition of the oil is | Barium | ppm | ASTM D5185m | 5 | 0 | 0 | |
| suitable for further service. | Molybdenum | ppm | ASTM D5185m | | <1 | 0 | |
| | Manganese | ppm | ASTM D5185m | | <1 | <1 | |
| | Magnesium | ppm | ASTM D5185m | 25 | <1 | <1 | |
| | Calcium | ppm | ASTM D5185m | | 10 | 45 | |
| | Phosphorus | ppm | ASTM D5185m | | 177 | 352 | |
| | Zinc | ppm | ASTM D5185m | | 225 | 452 | |
| | Sulfur | ppm | ASTM D5185m | | 923 | 6803 | |
| | Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.11 | 0.36 | |
| | Visc @ 40°C | cSt | ASTM D0045 | | 30.8 | 37.2 | |
| | Visc @ 40 C | cSt | ASTM D445 | | 5.4 | 7.1 | |
| | Viscosity Index (VI) | | ASTM D2270 | | 109 | | |
| | viscosity index (VI) | Scale | ASTIVI DZZ/U | 102 | 109 | 156 | |





Certificate L2367

Laboratory Sample No. Lab Number

: 06211554 Unique Number: 11084418

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0679372 Received

: 17 Jun 2024 **Tested** Diagnosed Test Package : MOB 2 (Additional Tests: KV100, VI)

: 18 Jun 2024

: 18 Jun 2024 - Wes Davis

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Contact: JAMES BLACK james.black@hiab.com T: (785)213-9353

HIAB USA - ST LOUIS

2367 CASSENS DR

FENTON, MO

US 63026

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: (636)677-5800 Contact/Location: JAMES BLACK - CARHIGMO