Machine Id

## PRESS \#8 FRONT STRETECHER

## Hydraulic System

## AW HYDRAULIC OIL ISO 46 (1000 GAL)

## DIAGNOSIS

## Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your 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.

| SAMPLE INFORMATION |  | method | limitbase | current |  | history1 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | history2


| CONTAMINATION |  | method | limit/base | current | history1 | history2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water |  | WC Method | >0.05 | NEG | NEG | NEG |
| WEAR METALS |  | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185(m) | >30 | <1 | <1 | 5 |
| Chromium | ppm | ASTM D5185(m) | >2 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) | >2 | <1 | 0 | <1 |
| Titanium | ppm | ASTM D5185(m) |  | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) |  | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >2 | 0 | <1 | <1 |
| Lead | ppm | ASTM D5185(m) | >10 | 0 | <1 | <1 |
| Copper | ppm | ASTM D5185(m) | >25 | 2 | 2 | 2 |
| Tin | ppm | ASTM D5185(m) | >20 | 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) | 5 | 0 | <1 | <1 |
| Barium | ppm | ASTM D5185(m) | 5 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 5 | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) |  | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) | 25 | <1 | 0 | 0 |
| Calcium | ppm | ASTM D5185(m) | 200 | 8 | 10 | 13 |
| Phosphorus | ppm | ASTM D5185(m) | 300 | 248 | 319 | 317 |
| Zinc | ppm | ASTM D5185(m) | 370 | 158 | 208 | 236 |
| Sulfur | ppm | ASTM D5185(m) | 2500 | 505 | 596 | 558 |
| Lithium | ppm | ASTM D5185(m) |  | <1 | <1 | <1 |


| CONTAMINANTS | method | limit/base | current | history1 | history2 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Silicon | ppm | ASTM D55185 $(\mathrm{m})$ | $>25$ | $\mathbf{0}$ | $<1$ | 0 |
| Sodium | ppm | ASTM D5185(m) |  | $<\mathbf{1}$ | 0 | 0 |
| Potassium | ppm | ASTM D5585 $(\mathrm{m})$ | $>20$ | $<\mathbf{1}$ | $<1$ | $<1$ |


| FLUID CLE | method | limit/base | current | history1 | history2 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Particles $>4 \mu \mathrm{~m}$ | ASTM D7647 | >5000 | $\triangle 31930$ | - 7692 | - 11153 |
| Particles $>6 \mu \mathrm{~m}$ | ASTM D7647 | >1300 | $\triangle 6135$ | 1971 | 1929 |
| Particles $>14 \mu \mathrm{~m}$ | ASTM D7647 | >160 | - 214 | 132 | 77 |
| Particles $>21 \mu \mathrm{~m}$ | ASTM D7647 | $>40$ | 43 | 30 | 13 |
| Particles $>38 \mu \mathrm{~m}$ | ASTM D7647 | >10 | 1 | 1 | 0 |
| Particles $>71 \mu \mathrm{~m}$ | ASTM D7647 | $>3$ | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14 | $\triangle$ 22/20/15 | 20/18/14 | - 21/18/13 |



| FLUID DEGRADATION method |  |  | limit/base | current | history1 | history2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Acid Number (AN) | mg KOH/g | ASTM D974* | 0.57 | 0.32 | 0.32 | 0.35 |
| 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 | VLITE | NONE | NONE |
| Appearance | scalar | Visual* | NORML | NORML | NORML | NORML |
| Odor | scalar | Visual* | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | Visual* | >0.05 | NEG | NEG | NEG |
| Free Water | scalar | Visual* |  | NEG | NEG | NEG |


| FLUID PROPERTIES |  | method | limit/base | current | history1 | history2 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Visc @ $40^{\circ} \mathrm{C}$ | cSt | ASTM D7279(m) | 46 | $\mathbf{4 5 . 7}$ | 45.7 | 44.6 |
| Visc @ $100^{\circ} \mathrm{C}$ | cSt | ASTM D7279(m) | 6.7 | $\mathbf{7 . 0}$ | 7 | 6.9 |
| Viscosity Index (VI) | Scale | ASTM D2270* | 97 | $\mathbf{1 1 0}$ | 110 | 110 |

SAMPLE IMAGES method limit/base current history1 history2
Color
Bottom


Viscosity @ $100^{\circ} \mathrm{C}$



| CALA | Laboratory | : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 | ppleby Line, Burlington, ON L7L 5H9 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Sample No. | : PC0081056 | Received | : 11 Jun 2024 |
| ISO 17025:2017 | Lab Number | : 02641127 | Tested | 12 Jun 2024 |
| Accredited | Unique Number | : 5798666 | Diagnosed | 12 Jun 2024 |
| Laboratory Test Package : IND 2 ( Additional Tests: KV100, VI ) |  |  |  |  |
| 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. |  |  |  |  |

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