

[SOUTH HOLLAND] LIEBHERR LTM 1300 AT1692 - DRIVE 1 (S/N 071692)

Front Differential

HPL DIFFERENTIAL LIFE 75W90 SYNTHETIC (20 LTR)

| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|--|------------------------|------------|----------------------------|-----------|--------------|----------|----------|
| No corrective action is recommended at this time. Resample at the next service interval to monitor. | Sample Number | | Client Info | | HPL008773 | | |
| | Sample Date | | Client Info | | 06 Aug 2020 | | |
| | Machine Age | mls | Client Info | | 22832 | | |
| | Oil Age | mls | Client Info | | 7545 | | |
| | Filter Age | mls | Client Info | | 0 | | |
| | Oil Changed | | Client Info | | Not Changd | | |
| | Filter Changed | | Client Info | | Not Changd | | |
| | Sample Status | | | | ABNORMAL | | |
| VEAR | Iron | ppm | ASTM D5185m | >500 | 47 | | |
| | Chromium | ppm | ASTM D5185m | | 0 | | |
| The copper level is abnormal. All other component wear rates are normal. | Nickel | ppm | ASTM D5185m | 210 | 0 | | |
| | Titanium | ppm | ASTM D5185m | | 0 | | |
| | Silver | ppm | ASTM D5185m | | 0 | | |
| | Aluminum | ppm | ASTM D5185m | >25 | 4 | | |
| | Lead | ppm | ASTM D5185m | >25 | 0 | | |
| | Copper | ppm | ASTM D5185m | >100 | A 131 | | |
| | Tin | ppm | ASTM D5185m | >10 | 0 | | |
| | Vanadium | ppm | ASTM D5185m | | 0 | | |
| | White Metal | scalar | *Visual | NONE | NONE | | |
| | Yellow Metal | scalar | *Visual | NONE | NONE | | |
| CONTAMINATION | Silicon | | ASTM D5185m | . 75 | 0 | | |
| There is no indication of any contamination in the oil. | Potassium | ppm | ASTM D5185m | | 8 0 | | |
| | Water | ppm | WC Method | | NEG | | |
| | Silt | scalar | *Visual | NONE | NONE | | |
| | Debris | scalar | *Visual | NONE | NONE | | |
| | Sand/Dirt | scalar | *Visual | NONE | NONE | | |
| | Appearance | scalar | *Visual | NORML | NORML | | |
| | Odor | scalar | *Visual | NORML | NORML | | |
| | Emulsified Water | scalar | *Visual | >.2 | NEG | | |
| FLUID CONDITION | | | | | | | |
| | Sodium | ppm | ASTM D5185m | | 0 | | |
| The AN level is acceptable for this fluid. The condition of the oil is suitable for further service. | Boron | ppm | ASTM D5185m | | 27 | | |
| | Barium | ppm | ASTM D5185m | | 0 | | |
| | Molybdenum | ppm | ASTM D5185m | | 0 | | |
| | Manganese Magnesium | ppm | ASTM D5185m | | <1 | | |
| | - | ppm | ASTM D5185m | | 0 | | |
| | Calcium Phosphorus | ppm | ASTM D5185m ASTM D5185m | | 0 | | |
| | Phosphorus | ppm | MOTIVI DOTOOM | | 349 | | |
| | • | nom | ACTM DE10E~ | | 55 | | |
| | Zinc Sulfur | ppm ppm | ASTM D5185m ASTM D5185m | | 55 25056 | | |

Acid Number (AN) mg KOH/g ASTM D8045

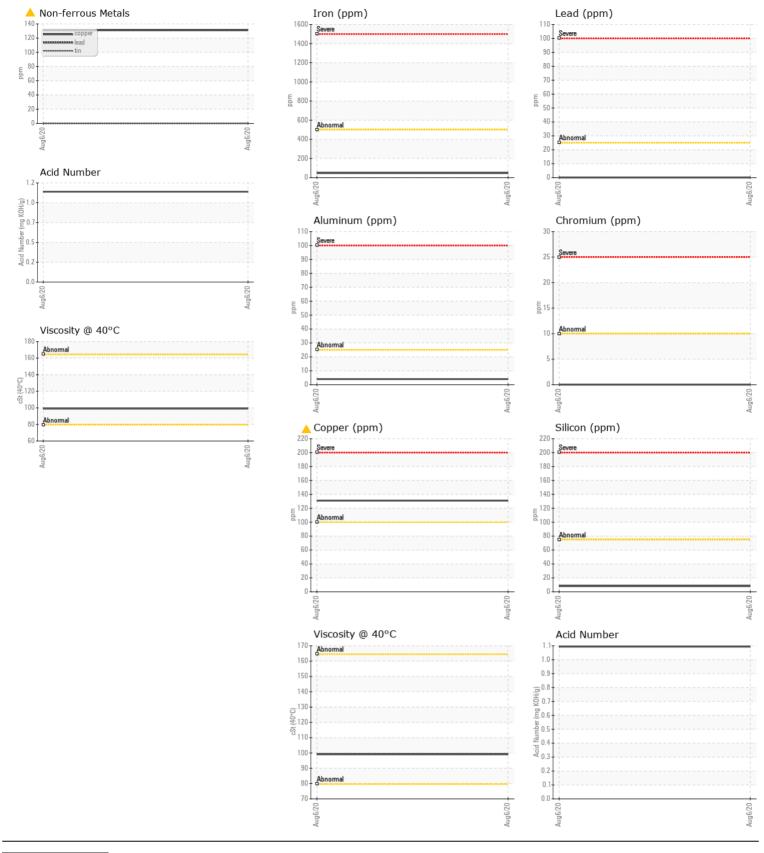
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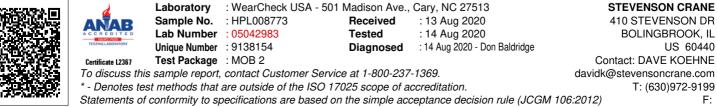
Visc @ 40°C

ASTM D445 Contact/Location: DAVE KOEHNE - STEBOL

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