

WEAR ABNORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL



LIEBHERR R954B MH-4 (S/N 015630-629)

Right Final Drive

DURALENE Posi-Traction 80W90 (--- GAL)

| RECOMMENDATION |
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No corrective action is recommended at this time. Resample at the next service interval to monitor.

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|---|---|---|---|---|---|
| _ | - | _ | | | - |

Bearing and/or bushing wear is indicated. All other component wear rates are normal.

CONTAMINATION

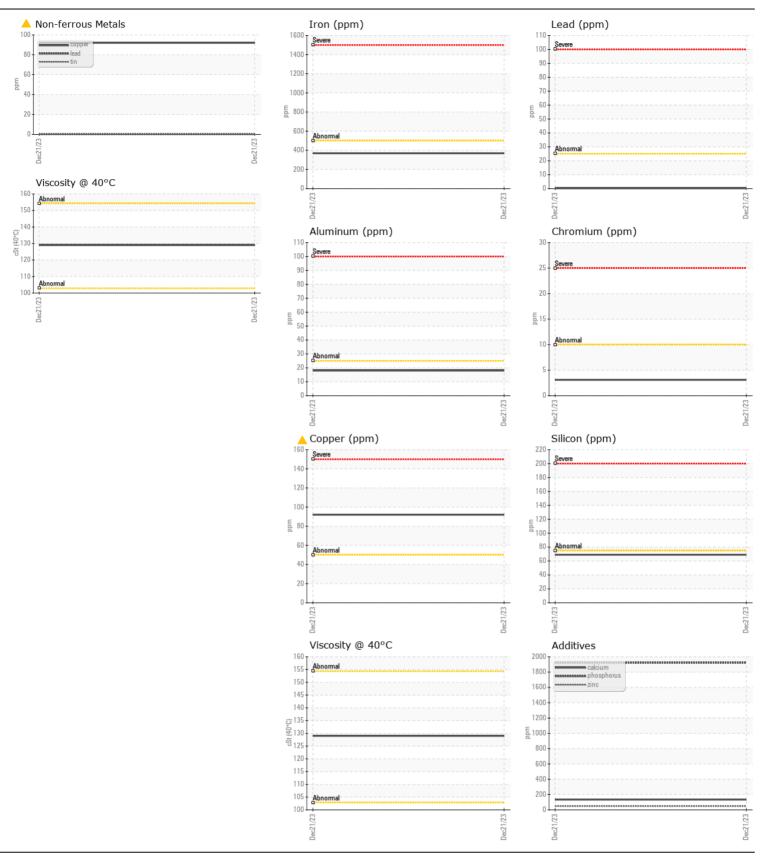
There is no indication of any contamination in the oil.

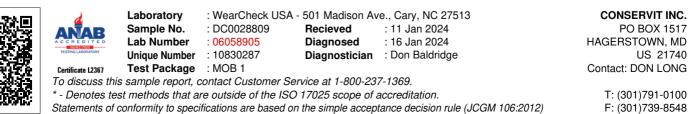
FLUID CONDITION

The condition of the oil is acceptable for the time in service.

| 0 (GAL) | | | | ~~~~ | | |
|---|--|--|------------------------|---|----------|------------------|
| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
| Sample Number | | Client Info | | DC0028809 | | |
| Sample Date | | Client Info | | 21 Dec 2023 | | |
| Machine Age | hrs | Client Info | | 12300 | | |
| Oil Age | hrs | Client Info | | 2000 | | |
| Filter Age | hrs | Client Info | | 0 | | |
| Oil Changed | | Client Info | | Not Changd | | |
| Filter Changed | | Client Info | | N/A | | |
| Sample Status | | ABNORMAL | | | | |
| | | | 500 | 000 | | |
| Iron | ppm | ASTM D5185m | >500 | 369 | | |
| Chromium | ppm | ASTM D5185m | >10 | 3 | | |
| Nickel | ppm | ASTM D5185m | >10 | 2 | | |
| Titanium | ppm | ASTM D5185m | | 3 | | |
| Silver | ppm | ASTM D5185m | 0.5 | 0 | | |
| Aluminum | ppm | ASTM D5185m | >25 | 18 | | |
| Lead | ppm | ASTM D5185m | >25 | <1 | | |
| Copper | ppm | ASTM D5185m | >50 | <mark>/</mark> 92 | | |
| Tin | ppm | ASTM D5185m | >10 | <1 | | |
| Vanadium | ppm | ASTM D5185m | | 0 | | |
| White Metal | scalar | *Visual | NONE | NONE | | |
| Yellow Metal | scalar | *Visual | NONE | NONE | | |
| Silicon | ppm | ASTM D5185m | >75 | 69 | | |
| Potassium | ppm | ASTM D5185m | >20 | 7 | | |
| Water | | WC Method | >0.2 | NEG | | |
| Silt | | 43 /l 1 | NONE | NONE | | |
| Siit | scalar | *Visual | NONE | NONE | | |
| Debris | scalar scalar | *Visual *Visual | NONE | NONE | | |
| | | | | - | | |
| Debris | scalar | *Visual | NONE | NONE | | |
| Debris Sand/Dirt | scalar scalar | *Visual *Visual | NONE NONE | NONE | | |
| Debris Sand/Dirt Appearance | scalar scalar scalar | *Visual *Visual *Visual | NONE NONE NORML | NONE NONE NORML | | |
| Debris Sand/Dirt Appearance Odor Emulsified Water | scalar scalar scalar scalar scalar | *Visual *Visual *Visual *Visual *Visual | NONE NORML NORML | NONE NORE NORML NORML NEG | | |
| Debris Sand/Dirt Appearance Odor Emulsified Water Sodium | scalar scalar scalar scalar scalar ppm | *Visual *Visual *Visual *Visual *Visual ASTM D5185m | NONE NORML NORML | NONE NORML NORML NEG 0 | | |
| Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron | scalar scalar scalar scalar scalar ppm ppm | *Visual *Visual *Visual *Visual *Visual ASTM D5185m | NONE NORML NORML | NONE NORML NORML NEG 0 96 | | |
| Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium | scalar scalar scalar scalar scalar ppm ppm | *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m | NONE NORML NORML | NONE NORML NORML NEG 0 96 0 | | |
| Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum | scalar scalar scalar scalar scalar ppm ppm ppm | *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m | NONE NORML NORML | NONE NORML NORML NEG 0 96 0 <1 | | |
| Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese | scalar scalar scalar scalar ppm ppm ppm ppm | *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | NONE NORML NORML | NONE NORML NORML NEG 0 96 0 <1 2 | | |
| Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium | scalar scalar scalar scalar ppm ppm ppm ppm ppm | *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | NONE NORML NORML | NONE NORML NORML NEG 0 96 0 <1 2 2 | | |
| Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium | scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm | *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | NONE NORML NORML | NONE NORML NORML NEG 0 96 0 <1 2 2 23 134 | | |
| Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Barium Molybdenum Manganese Magnesium Calcium | scalar scalar scalar scalar ppm ppm ppm ppm ppm | *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | NONE NORML NORML | NONE NORML NORML NEG 0 96 0 4 2 23 134 1922 | | |
| Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc | scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm | *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | NONE NORML NORML | NONE NORML NORML NEG 0 96 0 <1 2 23 134 1922 49 | | |
| Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium Calcium | scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm | *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | NONE NORML NORML | NONE NORML NORML NEG 0 96 0 4 2 23 134 1922 | | |

Submitted By: DON LONG





Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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