

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR R938 050294-1650 - Left Final Drive

Sample No: LH0172354

Oil Type: GEAR OIL SAE 75W90



INFORMATION SUR L'ÉCHANTILLON

| Numéro d'échant. | LH0172354 | LH0172345 | LH0257073 | LH0172318 |
|----------------------|-------------|-------------|-------------|-------------|
| Date d'échant. | 03 Jan 2024 | 11 Jul 2023 | 21 Mar 2023 | 14 Oct 2021 |
| Heures de la Machine | 4951 | 4478 | 4098 | 2273 |
| Heures de l'huile | 0 | 0 | 0 | 0 |
| Huile changée | Changed | Not Changd | Changed | Changed |
| Statut de l'échant. | ABNORMAL | ABNORMAL | SEVERE | NORMAL |

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ÉTAT D'HUILE

| Visc 40°C | cSt | 99.1 | 102 | 91.5 | 174 |
|-----------|-----|------|-----|------|-----|
| | | | | | |



CONTAMINATION

| Eau | % | 0.266 | NEG | NEG | NEG |
|-----------|-----|-------|-----|-----|-----|
| Silicium | ppm | 727 | 250 | 783 | 30 |
| Sodium | ppm | 30 | 11 | 37 | 3 |
| Potassium | ppm | 64 | 17 | 53 | 4 |



MÉTAUX D'USURE

| | | | | | |
|-----------|-----|------|------|------|-----|
| PQ | | 189 | 18 | 160 | --- |
| Fer | ppm | 1968 | 1164 | 2208 | 380 |
| Cuivre | ppm | 1 | <1 | 2 | <1 |
| Plomb | ppm | <1 | 0 | 1 | 0 |
| Étain | ppm | 0 | 0 | 0 | 0 |
| Aluminium | ppm | 162 | 46 | 141 | 8 |
| Chrome | ppm | 28 | 15 | 24 | 9 |
| Molybdène | ppm | 2 | 1 | 2 | <1 |
| Nickel | ppm | 2 | <1 | 2 | <1 |
| Titane | ppm | 9 | 3 | 9 | <1 |
| Argent | ppm | 0 | 0 | 0 | <1 |
| Manganèse | ppm | 16 | 9 | 15 | 9 |
| Vanadium | ppm | 0 | <1 | <1 | 0 |



ADDITIFS

| | | | | | |
|-----------|-----|------|------|------|------|
| Calcium | ppm | 632 | 221 | 574 | 73 |
| Magnésium | ppm | 223 | 88 | 211 | 22 |
| Zinc | ppm | 15 | 10 | 23 | 24 |
| Phosphore | ppm | 1200 | 1279 | 1236 | 1135 |
| Baryum | ppm | 0 | <1 | 0 | 13 |
| Bore | ppm | 255 | 243 | 103 | 2 |

Diagnostic

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Chromium and iron ppm levels are abnormal. Aluminum ppm levels are noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. There is a moderate concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. High amount of ingressed dirt has caused abrasive wear to the component. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: MOOPAL
 Unique No: 5709375
 Signed: Kevin Marson
 Report Date: 15 Jan 2024



GRAPHS

