LIEBHERR

CONSTRUCTION EQUIPMENT

LIEBHERR L538P 046205-1559 - Rear Differential

Sample No: LH0271480

Oil Type: GEAR OIL SAE 80W90

| a | | | | | |
|---------------|------------------|--------------|-------------|-------------|-------------|
| U SAM | PLE INFOR | MATION | | | |
| Sample Number | | LH0271480 | LH0234724 | LH | LH0167977 |
| Sample Date | | 25 Jul 2023 | 28 Jul 2022 | 07 Apr 2021 | 22 Aug 2020 |
| Machine Hours | | 5955 | 5088 | 0 | 3000 |
| Oil Hours | | 0 | 0 | 0 | 0 |
| Oil Changed | | N/A | Changed | Changed | Changed |
| Sample Status | | NORMAL | NORMAL | NORMAL | ABNORMAL |
| <u> </u> | | 110111111 | | | |
| OILC | ONDITION | 1 | | | |
| Visc @ 40°C | cSt | 95.0 | 98.5 | O 117 | 91.3 |
| طد | | | | | |
| CON | TAMINAT | ION | | | |
| Silicon | ppm | 4 | O 2 | O 2 | O 4 |
| Sodium | ppm | 1 | O <1 | O 2 | 6 |
| Potassium | ppm | 0 <1 | O <1 | O <1 | 4 |
| | R METALS | | | | |
| Iron | ppm | 57 | O 26 | O 97 | O 115 |
| Copper | ppm | ○ <1 | O 0 | O <1 | O <1 |
| Lead | ppm | 0 | O 0 | O 0 | O 0 |
| Tin | ppm | 0 | O 0 | 0 | 0 |
| Aluminum | ppm | 0 <1 | 0 | 0 | O <1 |
| Chromium | ppm | ○ <1 | O 0 | O <1 | O <1 |
| Molybdenum | ppm | () <1 | O 0 | O <1 | O <1 |
| Nickel | ppm | 0 | O 0 | O <1 | O <1 |
| Titanium | ppm | 0 | 0 | 0 | 0 |
| Silver | ppm | <1 | 0 | <1 | <1 |
| Manganese | ppm | ○ <1 | O <1 | O <1 | O 1 |
| Vanadium | ppm | 0 | 0 | 0 | 0 |
| | ITIVES | | | | |
| Calcium | ppm | 13 | O 7 | 0 8 | O 10 |
| Magnesium | ppm | 2 | O 2 | O 2 | O 2 |
| Zinc | ppm | 20 | 7 | 9 | 10 |
| Phosphorus | ppm | 3413 | O 2229 | ○ 3448 | ○ 3523 |
| Barium | ppm | 0 | O 0 | O 0 | O 0 |
| Boron | ppm | 290 | O 237 | O 177 | ○ 286 |



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F:

Diagnosis

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within SAE 75W90 range, advise investigate. The condition of the oil is acceptable for the time in service.

Depot:LESSTTUnique No:5618300Signed:Kevin MarsonReport Date:31 Jul 2023

LIEBHERR





GRAPHS

