LIEBHERR

CONSTRUCTION EQUIPMENT



Sample No: LH0278487

Oil Type: GEAR OIL SAE 80W90

| SAMPLEINFORMATION | | | | | | |
|-------------------|-------------|-------------|-------------|-------------|--|--|
| Sample Number | LH0278487 | LH0265905 | LH0250120 | LH0234414 | | |
| Sample Date | 22 Dec 2023 | 23 Mar 2023 | 22 Dec 2022 | 05 Jul 2022 | | |
| Machine Hours | 3966 | 0 | 1972 | 0 | | |
| Oil Hours | 0 | 0 | 0 | 0 | | |
| Oil Changed | Changed | Changed | Changed | Changed | | |
| Sample Status | NORMAL | NORMAL | NORMAL | NORMAL | | |
| | | | | | | |

| OIL CO | NDITION | | | | |
|--------|----------------|------------|-------|-------|-----|
| @ 40°C | cSt | 175 | O 174 | O 177 | 144 |

| COI | NTAMIN | ATION | | | | |
|-----------|--------|----------|------|------------|----------|--|
| Water | % | NEG | NEG | NEG | NEG | |
| Silicon | ppm | 2 | O 3 | O 2 | O 5 | |
| Sodium | ppm | 6 | O 7 | O 5 | 9 | |
| Potassium | nnm | 0 | 0 -1 | 0 | 0 -1 | |

| WEA | R META | LS | | | | |
|------------|--------|--------------|-------------|------------|------------|--|
| Iron | ppm | 14 | 2 7 | 3 2 | 3 7 | |
| Copper | ppm | 2 | 3 | O 2 | 6 | |
| Lead | ppm | () <1 | 0 | O <1 | O <1 | |
| Tin | ppm | 0 | 0 | 0 | 0 | |
| Aluminum | ppm | <1 | <1 | <1 | O <1 | |
| Chromium | ppm | 0 | <1 | O <1 | O <1 | |
| Molybdenum | ppm | 0 | 0 | O 0 | 0 | |
| Nickel | ppm | O <1 | O <1 | O 0 | O 0 | |
| Titanium | ppm | 0 | 0 | 0 | 0 | |
| Silver | ppm | 0 | 0 | 0 | 0 | |
| Manganese | ppm | 0 0 | <1 <1 | 1 | 2 | |
| Vanadium | ppm | 0 | 0 | 0 | 0 | |

| ADDITIVES | | | | | |
|------------|-----|-------------|----------|------------|------|
| Calcium | ppm | ○ 80 | O 173 | O 225 | 727 |
| Magnesium | ppm | 1 | O 2 | O 2 | 3 |
| Zinc | ppm | 25 | O 52 | 6 9 | 347 |
| Phosphorus | ppm | 2190 | O 2331 | ○ 2370 | 2018 |
| Barium | ppm | 0 | O 0 | O 0 | 0 |
| Boron | ppm | 2 | 4 | ○ 6 | 15 |



Industrial Metals 550 Messier St. Winnipeg, MB CA R2J 0G5

Contact: Service Manager

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

Depot: IND550WIN
Unique No: 5707697
Signed: Wes Davis
Report Date: 04 Jan 2024

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GRAPHS

