

LIEBHERR

CONSTRUCTION EQUIPMENT



[EARTH BORING] LIEBHERR LB28 115607 - Right Track Drive

Sample No: LH0286856

Oil Type: GEAR OIL SAE 75W90



SAMPLE INFORMATION

| Sample Number | LH0286856 | LH0247350 | LH0230904 | LH0136075 |
|---------------|-------------|-------------|-------------|-------------|
| Sample Date | 13 Mar 2024 | 14 Dec 2022 | 05 Jul 2022 | 08 Jun 2020 |
| Machine Hours | 9668 | 8263 | 7685 | 5168 |
| Oil Hours | 0 | 0 | 0 | 0 |
| Oil Changed | Changed | N/A | Changed | Changed |
| Sample Status | NORMAL | NORMAL | NORMAL | NORMAL |

Liebherr Canada
 140 - 21320 Gordon Way
 Richmond, BC
 CA V6W 1J8
 Contact: Kevin Steer
 kevin.steer@liebherr.com
 T:
 F: (604)270-3254



OIL CONDITION

| Visc @ 40°C | cSt | 102 | 103 | 96.0 | 98.9 |
|-------------|-----|-----|-----|------|------|
| | | | | | |



CONTAMINATION

| Water | % | NEG | NEG | NEG | NEG |
|-----------|-----|-----|-----|-----|-----|
| Silicon | ppm | 12 | 8 | 14 | 5 |
| Sodium | ppm | <1 | <1 | 1 | 0 |
| Potassium | ppm | 1 | 2 | 2 | <1 |

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.



WEAR METALS

| | | | | | |
|------------|-----|----|----|----|----|
| Iron | ppm | 25 | 16 | 23 | 20 |
| Copper | ppm | 3 | 3 | 5 | 2 |
| Lead | ppm | 0 | 0 | <1 | <1 |
| Tin | ppm | 0 | <1 | <1 | 0 |
| Aluminum | ppm | 4 | 2 | 4 | 1 |
| Chromium | ppm | 0 | 0 | 0 | <1 |
| Molybdenum | ppm | 0 | 0 | <1 | <1 |
| Nickel | ppm | <1 | <1 | <1 | <1 |
| Titanium | ppm | 0 | <1 | <1 | <1 |
| Silver | ppm | 0 | 0 | 0 | 0 |
| Manganese | ppm | 0 | <1 | <1 | <1 |
| Vanadium | ppm | 0 | 0 | 0 | 0 |



ADDITIVES

| | | | | | |
|------------|-----|------|------|------|------|
| Calcium | ppm | 31 | 27 | 107 | 9 |
| Magnesium | ppm | 4 | 2 | 3 | 3 |
| Zinc | ppm | 12 | 16 | 12 | 9 |
| Phosphorus | ppm | 1248 | 1286 | 1099 | 1351 |
| Barium | ppm | <1 | 0 | 0 | 0 |
| Boron | ppm | 310 | 299 | 278 | 340 |

Depot: LIERIC
 Unique No: 5747218
 Signed: Wes Davis
 Report Date: 14 Mar 2024



GRAPHS

