

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR L566 054116-1484 - Front Differential

Sample No: LH0281171

Oil Type: LIEBHERR GEAR BASIC 90 LS



SAMPLE INFORMATION

| Sample Number | LH0281171 | LH0281153 | LH0135641 | LH0135639 |
|---------------|-------------|-------------|-------------|-------------|
| Sample Date | 26 Jan 2024 | 04 Jan 2024 | 21 Jan 2021 | 10 Dec 2020 |
| Machine Hours | 9754 | 9598 | 4000 | 3800 |
| Oil Hours | 0 | 0 | 0 | 0 |
| Oil Changed | Not Changd | Changed | Not Changd | Changed |
| Sample Status | NORMAL | SEVERE | NORMAL | ABNORMAL |

Abbycel Substrate Ltd.
 3545 Ross Road
 Abbotsford, BC
 CA V4X 1M6
 Contact: Service Manager



OIL CONDITION

| Visc @ 40°C | cSt | 180 | 193 | 86.2 | 191 |
|-------------|-----|-----|-----|------|-----|
| | | ● | ● | ● | |

T:
F:



CONTAMINATION

| Water | % | NEG | NEG | NEG | NEG |
|-----------|-----|------|------|------|------|
| Silicon | ppm | ● 4 | ● 30 | ● 2 | ● 30 |
| Sodium | ppm | ● 2 | ● 6 | ● 1 | ● 6 |
| Potassium | ppm | ● <1 | ● <1 | ● <1 | ● <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 | ● 69 | ● 281 | ● 48 | ● 479 |
| Copper | ppm | ● 11 | ● 97 | ● 21 | ● 134 |
| Lead | ppm | ● <1 | ● 3 | ● <1 | ● 4 |
| Tin | ppm | ● <1 | ● 7 | ● <1 | ● 7 |
| Aluminum | ppm | ● <1 | ● 2 | ● <1 | ● 2 |
| Chromium | ppm | ● <1 | ● 3 | ● <1 | ● 4 |
| Molybdenum | ppm | ● 0 | ● 0 | ● 1 | 21 |
| Nickel | ppm | ● 2 | ● 13 | ● <1 | ● 2 |
| Titanium | ppm | 0 | 0 | 0 | 0 |
| Silver | ppm | 0 | 0 | <1 | <1 |
| Manganese | ppm | ● 9 | 44 | ● 2 | 43 |
| Vanadium | ppm | 0 | 0 | 0 | <1 |



ADDITIVES

| | | | | | |
|------------|-----|--------|--------|--------|------|
| Calcium | ppm | ● 3 | ● 5 | ● 19 | ● 11 |
| Magnesium | ppm | ● <1 | ● 4 | ● 2 | ● 4 |
| Zinc | ppm | ● 5 | 26 | ● 28 | ● 66 |
| Phosphorus | ppm | ● 2325 | ● 2247 | ● 2473 | 2238 |
| Barium | ppm | ● 0 | ● <1 | ● 0 | ● <1 |
| Boron | ppm | ● 1 | ● 2 | ● 196 | 3 |

Depot: ABB354ABB
 Unique No: 5722002
 Signed: Wes Davis
 Report Date: 01 Feb 2024



GRAPHS

