

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50 1216-116574 - Swing Drive

Sample No: LH0171149

Oil Type: GEAR OIL SAE 80W90



SAMPLE INFORMATION

| Sample Number | LH0171149 | LH0171121 | LH0171107 | LH0171093 |
|---------------|-------------|-------------|-------------|-------------|
| Sample Date | 29 Aug 2023 | 27 Apr 2023 | 27 Jan 2023 | 04 Aug 2020 |
| Machine Hours | 17910 | 16726 | 14930 | 2000 |
| Oil Hours | 0 | 0 | 0 | 0 |
| Oil Changed | Changed | Changed | Changed | Not Changd |
| Sample Status | NORMAL | NORMAL | ABNORMAL | NORMAL |

BOISE WHITE PAPER

3RD AVE AND HWY 11, 400 2ND ST
INTERNATIONAL FALLS, MN
US 56649
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OIL CONDITION

| Visc @ 40°C | cSt | 175 | 175 | 149 | 180 |
|-------------|-----|-----|-----|-----|-----|
| | | ● | ● | ● | ● |



CONTAMINATION

| Element | ppm | 5 | 2 | 8 | 2 |
|-----------|-----|---|---|---|---|
| Silicon | ppm | ● | ● | ● | ● |
| Sodium | ppm | ● | ● | ● | ● |
| Potassium | ppm | ● | ● | ● | ● |



WEAR METALS

| Element | ppm | 1117 | 457 | 1029 | 199 |
|------------|-----|------|-----|------|-----|
| Iron | ppm | ● | ● | ● | ● |
| Copper | ppm | ● | ● | ● | ● |
| Lead | ppm | ● | ● | ● | ● |
| Tin | ppm | ● | ● | ● | ● |
| Aluminum | ppm | ● | ● | ● | ● |
| Chromium | ppm | ● | ● | ● | ● |
| Molybdenum | ppm | ● | ● | ● | ● |
| Nickel | ppm | ● | ● | ● | ● |
| Titanium | ppm | ● | ● | ● | ● |
| Silver | ppm | ● | ● | ● | ● |
| Manganese | ppm | ● | ● | ● | ● |
| Vanadium | ppm | ● | ● | ● | ● |



ADDITIVES

| Element | ppm | 28 | 16 | 95 | 53 |
|------------|-----|----|----|----|----|
| Calcium | ppm | ● | ● | ● | ● |
| Magnesium | ppm | ● | ● | ● | ● |
| Zinc | ppm | ● | ● | ● | ● |
| Phosphorus | ppm | ● | ● | ● | ● |
| Barium | ppm | ● | ● | ● | ● |
| Boron | ppm | ● | ● | ● | ● |

Diagnosis

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. 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: BOIINT
Unique No: 10633778
Signed: Sean Felton
Report Date: 08 Sep 2023



GRAPHS

