

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50M 107 256-1216 - Swing Drive

Sample No: LH06173163

Oil Type: GEAR OIL SAE 80W90



DIEHL AND NUEMAIER
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Sample Information

| | | | | |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | LH06173163 | LH05510131 | LH05170956 | LHMC133362 |
| Sample Date | 08 May 2024 | 03 Apr 2022 | 30 Jan 2021 | 05 Jan 2020 |
| Machine Hours | 3993 | 2974 | 1987 | 1017 |
| Oil Hours | 0 | 0 | 0 | 0 |
| Oil Changed | N/A | Changed | Changed | Changed |
| Sample Status | NORMAL | NORMAL | ABNORMAL | NORMAL |



Oil Condition

| | | | | | |
|-------------|-----|------------|-----|-----|-----|
| Visc @ 40°C | cSt | 196 | 229 | 238 | 208 |
|-------------|-----|------------|-----|-----|-----|



Contamination

| | | | | | |
|-----------|-----|--------------|-----|-------|-----|
| Water | % | NEG | NEG | 0.366 | NEG |
| Silicon | ppm | 3 | 4 | 4 | 2 |
| Sodium | ppm | <1 | 2 | 0 | 3 |
| Potassium | ppm | 2 | 0 | 0 | 0 |



Wear Metals

| | | | | | |
|------------|-----|--------------|-----|------|-----|
| Iron | ppm | 373 | 863 | 1225 | 683 |
| Copper | ppm | 78 | 73 | 86 | 44 |
| Lead | ppm | <1 | <1 | <1 | 0 |
| Tin | ppm | 6 | 4 | 3 | 0 |
| Aluminum | ppm | <1 | 2 | 0 | <1 |
| Chromium | ppm | 4 | 8 | 11 | 4 |
| Molybdenum | ppm | 1 | <1 | <1 | 0 |
| Nickel | ppm | 1 | <1 | <1 | <1 |
| Titanium | ppm | <1 | 0 | 0 | 0 |
| Silver | ppm | 0 | 0 | 0 | 0 |
| Manganese | ppm | 4 | 7 | 9 | 6 |
| Vanadium | ppm | <1 | 0 | 0 | <1 |



Additives

| | | | | | |
|------------|-----|-------------|------|------|------|
| Calcium | ppm | 2 | 3 | 12 | 22 |
| Magnesium | ppm | 2 | <1 | 3 | 9 |
| Zinc | ppm | 42 | 26 | 61 | 111 |
| Phosphorus | ppm | 2309 | 2318 | 2074 | 1906 |
| Barium | ppm | 0 | 0 | <1 | 2 |
| Boron | ppm | 10 | 2 | 6 | 10 |

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the fluid. The condition of the fluid is acceptable for the time in service.

Depot: DIEDEF
Unique No: 11019216
Signed: Sean Felton
Report Date: 10 May 2024



Graphs

