

LIEBHERR

CONSTRUCTION EQUIPMENT



[[S20230323031207]] LIEBHERR TA230 7369 - Front Final Di

Sample No: LH06059586
 Oil Type: GEAR OIL SAE 80W90



HEAVY MACHINES INC.
 3930 EAST RAINES RD
 MEMPHIS, TN
 US 38118
 Contact: J. DAVIS
 JDAVIS@HEAVY.LLC.COM
 T:
 F: (901)260-2245



SAMPLE INFORMATION

| | | | | |
|---------------|-------------|-----|-----|-----|
| Sample Number | LH06059586 | --- | --- | --- |
| Sample Date | 29 Dec 2023 | --- | --- | --- |
| Machine Hours | 2227 | --- | --- | --- |
| Oil Hours | 0 | --- | --- | --- |
| Oil Changed | Changed | --- | --- | --- |
| Sample Status | ABNORMAL | --- | --- | --- |



OIL CONDITION

| | | | | | |
|-------------|-----|------|-----|-----|-----|
| Visc @ 40°C | cSt | 63.8 | --- | --- | --- |
|-------------|-----|------|-----|-----|-----|



CONTAMINATION

| | | | | | |
|-----------|-----|-----|-----|-----|-----|
| Water | % | NEG | --- | --- | --- |
| Silicon | ppm | 15 | --- | --- | --- |
| Sodium | ppm | 16 | --- | --- | --- |
| Potassium | ppm | 2 | --- | --- | --- |



WEAR METALS

| | | | | | |
|------------|-----|-----|-----|-----|-----|
| Iron | ppm | 173 | --- | --- | --- |
| Copper | ppm | 72 | --- | --- | --- |
| Lead | ppm | <1 | --- | --- | --- |
| Tin | ppm | 4 | --- | --- | --- |
| Aluminum | ppm | 2 | --- | --- | --- |
| Chromium | ppm | 2 | --- | --- | --- |
| Molybdenum | ppm | <1 | --- | --- | --- |
| Nickel | ppm | 7 | --- | --- | --- |
| Titanium | ppm | <1 | --- | --- | --- |
| Silver | ppm | 0 | --- | --- | --- |
| Manganese | ppm | 35 | --- | --- | --- |
| Vanadium | ppm | 0 | --- | --- | --- |



ADDITIVES

| | | | | | |
|------------|-----|------|-----|-----|-----|
| Calcium | ppm | 3653 | --- | --- | --- |
| Magnesium | ppm | 9 | --- | --- | --- |
| Zinc | ppm | 1538 | --- | --- | --- |
| Phosphorus | ppm | 1238 | --- | --- | --- |
| Barium | ppm | 4 | --- | --- | --- |
| Boron | ppm | 133 | --- | --- | --- |

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. The copper level is abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. Additive levels indicate the addition of a different brand, or type of oil. Confirm oil type.

Depot: LEC0051
 Unique No: 10830968
 Signed: Jonathan Hester
 Report Date: 16 Jan 2024



GRAPHS

