

[(368664)] LIEBHERR L550 062917-1756 - Diesel Engine

Sample No: LH0261510

Oil Type: DIESEL ENGINE OIL SAE 40

SAMPLE INFORMATION

| Sample Number | LH0261510 | LH0242590 | | | | |
|------------------|-------------|-------------|--|--|--|--|
| Sample Date | 17 May 2023 | 08 Nov 2022 | | | | |
| Machine Hours | 3364 | 2133 | | | | |
| Oil Hours | 0 | 0 | | | | |
| Oil Changed | Changed | Changed | | | | |
| Sample Status | ABNORMAL | NORMAL | | | | |
| | | | | | | |
| OIL CONDITION | | | | | | |
| Visc @ 100°C cSt | 0 11.6 | 13.2 | | | | |

95

Oxidation (PA)

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| Water | % | NEG | NEG | | | |
|----------------|-----|------------|------|--|--|--|
| Soot % | % | 0.1 | 0 | | | |
| Nitration (PA) | % | 93 | 78 | | | |
| Sulfation (PA) | % | 65 | 59 | | | |
| Glycol | % | NEG | 0.0 | | | |
| Fuel | % | 0 1.5 | <1.0 | | | |
| Silicon | ppm | 0 11 | 8 | | | |
| Sodium | ppm | 04 | 3 | | | |
| Potassium | ppm | 1 4 | 0 15 | | | |

86

WEAR METALS

%

| Iron | ppm | 0 16 | 0 11 | |
|------------|-----|------------------|-------|------|
| Copper | ppm | 0 149 | 0 142 | |
| Lead | ppm | 05 | 0 4 | |
| Tin | ppm | 01 | ○ <1 | |
| Aluminum | ppm | 04 | 2 | |
| Chromium | ppm | ◯ <1 | ○ <1 | |
| Molybdenum | ppm | 0 48 | 2 | |
| Nickel | ppm | <mark></mark> <1 | ○ <1 | |
| Titanium | ppm | ○ <1 | ○ <1 | |
| Silver | ppm | 0 🔘 | 0 | |
| Manganese | ppm | ○ <1 | ◯ <1 | |
| Vanadium | ppm | 0 | 0 | |

ADDITIVES Calcium 0 1085 ppm 2184 Magnesium **944** 031 ppm Zinc 0 1231 0 1166 ppm Phosphorus 0 1047 0 1012 ppm Barium ◯ <1 ◯ <1 ppm Boron 0 20 ppm 18





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Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.All component wear rates are normal. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Light fuel dilution occurring. No other contaminants were detected in the oil. Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.

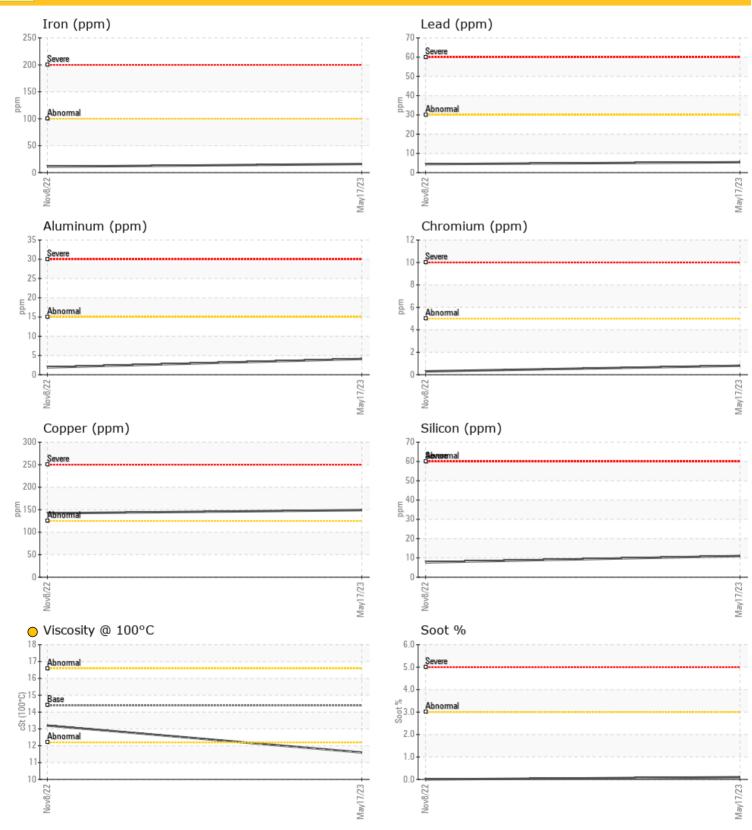
Depot: Unique No: Signed: Report Date: MIL408MAR2 5579361 Kevin Marson 19 May 2023

CONSTRUCTION EQUIPMENT



GRAPHS

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