

054454-194 - Front Right Wheel Hub

Sample No: LHMC123905

Oil Type: LIEBHERR GEAR BASIC 90 LS

SAMPLE INFORMATION

| Sample Number | LHMC123905 | LHMC123421 | LHMC96967 | LHMC73502 | |
|---------------|-------------|-------------|-------------|-------------|--|
| Sample Date | 09 Jan 2020 | 09 Jan 2020 | 26 Apr 2018 | 16 May 2016 | |
| Machine Hours | 3409 | 3409 | 2587 | 986 | |
| Oil Hours | 0 | 0 | 0 | 0 | |
| Oil Changed | Not Changd | Not Changd | Not Changd | N/A | |
| Sample Status | NORMAL | NORMAL | NORMAL | ABNORMAL | |
| | | | | | |
| | | | | | |

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|-------------|-----|-----|-----|---------|---------|
| Visc @ 40°C | cSt | 145 | 133 | 0 139.5 | 0 174.1 |
| | | | | | |

| Water | % | NEG | NEG | NEG | NEG | |
|-----------|-----|------|------|------|-----|--|
| Silicon | ppm | ○ <1 | ○ <1 | ◯ <1 | 02 | |
| Sodium | ppm | 01 | ◯ <1 | 0 1 | 2 | |
| Potassium | ppm | 0 2 | 01 | 8 | 0 4 | |

| Ä | | | | | |
|------------|---------|-------------|------|------|------|
| WEA | R METAL | 5 | | | |
| Iron | ppm | 0 13 | 24 | 0 10 | 26 |
| Copper | ppm | 06 | 0 2 | 0 4 | 8 |
| Lead | ppm | 0 | ○ <1 | 0 | 0 |
| Tin | ppm | 0 | ○ <1 | 0 | 0 |
| Aluminum | ppm | 0 | 0 | ◯ <1 | 0 |
| Chromium | ppm | ○ <1 | ○ <1 | ◯ <1 | ◯ <1 |
| Molybdenum | ppm | 0 🔘 | 0 | 0 | 0 |
| Nickel | ppm | ○ <1 | ○ <1 | ◯ <1 | ◯ <1 |
| Titanium | ppm | 0 | ○ <1 | ◯ <1 | ◯ <1 |
| Silver | ppm | 0 | 0 | 0 | 0 |
| Manganese | ppm | ◯ <1 | ○ <1 | <1 | <1 |
| Vanadium | ppm | 0 | 0 | 0 | 0 |

0 **ADDITIVES** Calcium ppm 6 $\bigcirc 5$ 05 00 Magnesium 0 $\bigcirc 0$ ppm ~ 04 Zinc 0 16 06 6 ppm Phosphorus ppm 0 1847 0 1782 1770 0 954 Barium 0 14 0 19 256 ppm 12 Boron 0 254 225 ppm 0 266 0 16





UNITED STATES GYPSUM 301 RILEY RD EAST CHICAGO, IN US 43612

Contact: Service Manager

T: F:

Diagnosis

Resample at the next service interval to monitor. NOTE: one of two samples received with same ID and sampling date.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:UNIEASLHUnique No:8883924Signed:Don BaldridgeReport Date:16 Jan 2020

Contact/Location: Service Manager - UNIEASLH





GRAPHS

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