CONSTRUCTION EQUIPMENT



[[SMS]] LIEBHERR R936 040909-1148 - Diesel Engine

Sample No: LHMC133698

Oil Type: LIEBHERR 5W40

SAMPLE INFORMATION

| Sample Number | | LHMC133698 | LHMC133734 | |
|------------------|----------------|-------------|-------------|------|
| Sample Date | | 19 Oct 2023 | 26 May 2023 | |
| Machine Hours | | 9498 | 9403 | |
| Oil Hours | | 93 | 4 | |
| Oil Changed | | Not Changd | Not Changd | |
| Sample Status | | NORMAL | NORMAL | |
| | | | | |
| OIL CO | NDITION | | | |
| Visc @ 100°C | cSt | 0 14.4 | 0 14.4 | |
| Base Number (BN) | mg KOH/g | 0 8.8 | 0 10.2 | |
| Oxidation (PA) | % | 57 | 52 | |
| | | | | |
| CONT | AMINATIO | N | | |
| Soot % | % | 0.3 | 0.1 | |
| Nitration (PA) | % | 64 | 39 | |
| Sulfation (PA) | % | 51 | 48 | |
| Glycol | % | NEG | NEG | |
| Fuel | % | <1.0 | <1.0 | |
| Silicon | ppm | 0 16 | 6 | |
| Sodium | ppm | 09 | 2 | |
| Potassium | ppm | 0 18 | 2 | |
| | | | | |

WEAR METALS

| Iron | ppm | 23 | 0 13 | |
|------------|-----|-------------|------|------|
| Copper | ppm | 0 17 | 0 4 | |
| Lead | ppm | 0 2 | ◯ <1 | |
| Tin | ppm | 0 2 | 0 | |
| Aluminum | ppm | 03 | 01 | |
| Chromium | ppm | ○ <1 | ○ <1 | |
| Molybdenum | ppm | 0 2 | 0 60 | |
| Nickel | ppm | ○ <1 | 0 | |
| Titanium | ppm | <1 | <1 | |
| Silver | ppm | ○ <1 | 0 | |
| Manganese | ppm | 2 | <1 | |
| Vanadium | ppm | <1 | 0 | |

| 0 |
|---|

| | FIVES | | | |
|------------|--------------|------------|--------|------|
| Calcium | ppm | 0 1505 | 0 1058 | |
| Magnesium | ppm | 0 871 | 847 | |
| Zinc | ppm | 961 | 0 1170 | |
| Phosphorus | ppm | 919 | 0 1008 | |
| Barium | ppm | 0 35 | 3 | |
| Boron | ppm | 0 128 | 07 | |
| | | | | |



FINKBINER EQUIPMENT CO.

15 W 400 N FRONTAGE RD BURR RIDGE, IL US 60527 Contact: DON FITZGERALD dfitzgerald@finkbiner.com T: (815)546-8991 F: (630)654-3792

Diagnosis

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

 Depot:
 LEC0033

 Unique No:
 10716173

 Signed:
 Wes Davis

 Report Date:
 31 Oct 2023

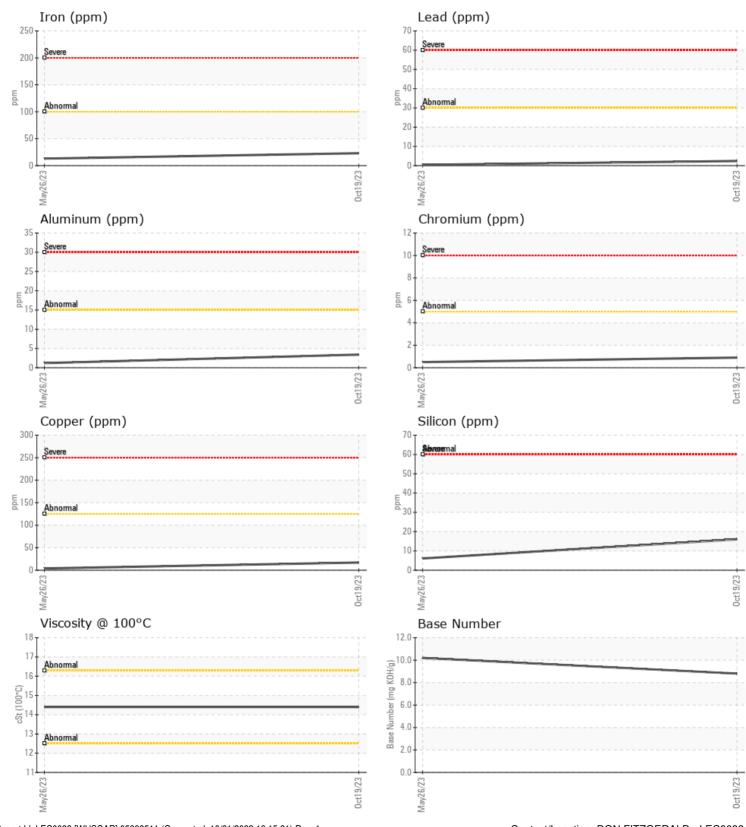
Contact/Location: DON FITZGERALD - LEC0033





GRAPHS

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Report Id: LEC0033 [WUSCAR] 05993511 (Generated: 10/31/2023 18:15:31) Rev: 1

Contact/Location: DON FITZGERALD - LEC0033