

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR L538P 046332-1559 - Diesel Engine

Sample No: LH0271500

Oil Type: DIESEL ENGINE OIL SAE 40



SAMPLE INFORMATION

| | | | | |
|---------------|-------------|-------------|-------------|-------------|
| Sample Number | LH0271500 | LH0256138 | LH0238923 | LH0136059 |
| Sample Date | 12 Sep 2023 | 27 Apr 2023 | 06 Dec 2022 | 21 Mar 2022 |
| Machine Hours | 10453 | 9967 | 9443 | 0 |
| Oil Hours | 0 | 0 | 0 | 0 |
| Oil Changed | Changed | Changed | N/A | Changed |
| Sample Status | NORMAL | NORMAL | NORMAL | NORMAL |

LES INDUSTRIES MAIBEC INC.

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OIL CONDITION

| | | | | | |
|----------------|-----|------|------|------|------|
| Visc @ 100°C | cSt | 13.9 | 13.5 | 11.7 | 11.9 |
| Oxidation (PA) | % | 57 | 60 | 72 | 79 |



CONTAMINATION

| | | | | | |
|----------------|-----|------|------|------|-----|
| Soot % | % | 0.3 | 0.2 | 0 | 0.1 |
| Nitration (PA) | % | 58 | 61 | 69 | 83 |
| Sulfation (PA) | % | 51 | 52 | 58 | 63 |
| Glycol | % | NEG | NEG | NEG | NEG |
| Fuel | % | <1.0 | <1.0 | <1.0 | 1.1 |
| Silicon | ppm | 3 | 4 | 4 | 5 |
| Sodium | ppm | 2 | 2 | 4 | 4 |
| Potassium | ppm | 2 | 1 | 0 | 2 |

Diagnosis

Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition. Les taux d'usure de tous les composants sont normaux. Il n'y a aucun indice de contamination dans l'huile. L'état de l'huile est acceptable pour la durée de service.



WEAR METALS

| | | | | | |
|------------|-----|----|----|----|----|
| Iron | ppm | 13 | 17 | 8 | 23 |
| Copper | ppm | 1 | 1 | <1 | 1 |
| Lead | ppm | 3 | 4 | <1 | 2 |
| Tin | ppm | 0 | <1 | 0 | <1 |
| Aluminum | ppm | 2 | 4 | 2 | 6 |
| Chromium | ppm | 0 | <1 | 0 | <1 |
| Molybdenum | ppm | 58 | 59 | 59 | 60 |
| Nickel | ppm | <1 | <1 | 0 | <1 |
| Titanium | ppm | 0 | 0 | <1 | 0 |
| Silver | ppm | <1 | 0 | 0 | 0 |
| Manganese | ppm | 0 | <1 | <1 | <1 |
| Vanadium | ppm | 0 | 0 | 0 | 0 |



ADDITIVES

| | | | | | |
|------------|-----|------|------|------|------|
| Calcium | ppm | 1028 | 1132 | 868 | 849 |
| Magnesium | ppm | 960 | 968 | 1101 | 1220 |
| Zinc | ppm | 1156 | 1187 | 1215 | 1300 |
| Phosphorus | ppm | 977 | 1099 | 1116 | 1114 |
| Barium | ppm | 0 | 0 | 0 | 0 |
| Boron | ppm | 2 | 2 | 39 | 33 |

Depot: LESSTP

Unique No: 5645874

Signed: Wes Davis

Report Date: 25 Sep 2023



GRAPHS

