

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR R938 1650-50726 - Diesel Engine

Sample No: LH0244724

Oil Type: MOBIL DELVAC 5W30



SAMPLE INFORMATION

Sample Number	LH0244724	LH0236514	---	---
Sample Date	13 Oct 2023	01 Aug 2022	---	---
Machine Hours	973	516	---	---
Oil Hours	0	516	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	NORMAL	ATTENTION	---	---

DIEHL AND NUEMAIER

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OIL CONDITION

Visc @ 100°C	cSt	12.6	12.1	---	---
Base Number (BN)	mg KOH/g	6.3	5.8	---	---
Oxidation (PA)	%	68	181	---	---



CONTAMINATION

Soot %	%	0.1	0.1	---	---
Nitration (PA)	%	74	98	---	---
Sulfation (PA)	%	57	103	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	1.0	---	---
Silicon	ppm	10	10	---	---
Sodium	ppm	1	3	---	---
Potassium	ppm	5	6	---	---

Diagnosis

Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. 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.



WEAR METALS

Iron	ppm	12	20	---	---
Copper	ppm	12	55	---	---
Lead	ppm	<1	3	---	---
Tin	ppm	1	2	---	---
Aluminum	ppm	1	4	---	---
Chromium	ppm	<1	3	---	---
Molybdenum	ppm	11	38	---	---
Nickel	ppm	0	0	---	---
Titanium	ppm	72	<1	---	---
Silver	ppm	0	<1	---	---
Manganese	ppm	0	1	---	---
Vanadium	ppm	<1	0	---	---



ADDITIVES

Calcium	ppm	1386	1654	---	---
Magnesium	ppm	669	717	---	---
Zinc	ppm	1132	858	---	---
Phosphorus	ppm	864	654	---	---
Barium	ppm	0	25	---	---
Boron	ppm	96	117	---	---

Depot: DIEDEF
Unique No: 10701310
Signed: Wes Davis
Report Date: 20 Oct 2023



GRAPHS

