

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR L586 055418-1334 - Diesel Engine

Sample No: LH0270254

Oil Type: SAE 5W30



#### SAMPLE INFORMATION

Sample Number	LH0270254	LH0274427	LH0261298	LH0256586
Sample Date	25 Sep 2023	15 Aug 2023	19 May 2023	27 Mar 2023
Machine Hours	12214	11526	10523	10029
Oil Hours	0	0	0	0
Oil Changed	N/A	Changed	Changed	N/A
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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#### OIL CONDITION

Visc @ 100°C	cSt	13.2	12.1	11.5	11.8
Oxidation (PA)	%	78	97	79	77



#### CONTAMINATION

Soot %	%	0	0	0	0
Nitration (PA)	%	71	87	73	73
Sulfation (PA)	%	58	68	56	64
Glycol	%	NEG	0.0	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	6	6	6
Sodium	ppm	2	8	5	5
Potassium	ppm	1	11	4	<1

#### 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. Viscosity of sample indicates oil is within SAE 40 range, advise investigate. The condition of the oil is acceptable for the time in service.



#### WEAR METALS

Iron	ppm	4	5	3	4
Copper	ppm	2	2	<1	1
Lead	ppm	2	4	<1	<1
Tin	ppm	0	<1	<1	0
Aluminum	ppm	<1	1	1	1
Chromium	ppm	0	<1	0	0
Molybdenum	ppm	59	57	60	59
Nickel	ppm	0	<1	<1	<1
Titanium	ppm	0	0	0	<1
Silver	ppm	<1	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



#### ADDITIVES

Calcium	ppm	1104	993	853	1013
Magnesium	ppm	959	1028	1083	1047
Zinc	ppm	1178	1159	1155	1189
Phosphorus	ppm	976	986	1046	1067
Barium	ppm	<1	0	0	0
Boron	ppm	8	17	30	35

**Depot:** CGCHAG  
**Unique No:** 5646220  
**Signed:** Bill Quesnel  
**Report Date:** 26 Sep 2023



### GRAPHS

