

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR L546 054052-1560 - Rear Left Wheel Hub

Sample No: LH0169008

Oil Type: GEAR OIL SAE 75W90



Sample Information

Sample Number	LH0169008	LH0169034	LH0169021	LH0168995
Sample Date	11 Jun 2024	10 Jan 2023	15 Sep 2022	14 Jun 2021
Machine Hours	7137	4988	4420	2099
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Not Changd	Changed
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	NORMAL

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Oil Condition

Visc @ 40°C	cSt	110	121	120	105
		●	●	●	●



Contamination

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	● 0	● 2	● <1	● 6
Sodium	ppm	● <1	● 1	● 1	● 1
Potassium	ppm	● 4	● 5	● 4	● 2



Wear Metals

PQ		● 0	● 0	● 0	---
Iron	ppm	● 521	● 754	● 471	● 35
Copper	ppm	● <1	● <1	● <1	● <1
Lead	ppm	● 0	● 0	● <1	● 0
Tin	ppm	0	0	0	0
Aluminum	ppm	● <1	● <1	● <1	● <1
Chromium	ppm	● 6	● 9	● 6	● <1
Molybdenum	ppm	● <1	● 0	● 0	● <1
Nickel	ppm	● <1	● 1	● <1	● <1
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	<1
Manganese	ppm	● 3	● 6	● 4	● <1
Vanadium	ppm	0	0	0	0



Additives

Calcium	ppm	● 13	● 4	● 5	● 13
Magnesium	ppm	● 7	● <1	● <1	● <1
Zinc	ppm	● 16	● 15	● 13	● 9
Phosphorus	ppm	590	● 841	718	● 1053
Barium	ppm	● 0	● 0	● 0	● 2
Boron	ppm	● 4	● 9	● 6	● 8

Diagnosis

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Iron ppm levels are abnormal. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. There is no indication of any contamination in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: MOOPAL
 Unique No: 5812308
 Signed: Kevin Marson
 Report Date: 10 Jul 2024



Graphs

