

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH60C106512-1528 - Left Final Drive

Sample No: LH0288228

Oil Type: LIEBHERR GEAR BASIC 90 LS



Gerdau - Mandak Metal Processors Ltd.,
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 Selkirk, MB
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Sample Information

Sample Number	LH0288228	LH0278580	LH	LH0234441
Sample Date	29 Apr 2024	05 Jan 2024	23 Aug 2023	12 Jun 2023
Machine Hours	23144	21976	0	19187
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	NORMAL	NORMAL	NORMAL



Oil Condition

Visc @ 40°C	cSt	225	194	185	178
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Contamination

Water	%	NEG	NEG	0.030	NEG
Silicon	ppm	258	<1	12	5
Sodium	ppm	11	1	3	2
Potassium	ppm	12	<1	<1	<1



Wear Metals

PQ		418	---	---	---
Iron	ppm	544	2	30	21
Copper	ppm	19	<1	2	3
Lead	ppm	2	0	0	0
Tin	ppm	<1	0	0	0
Aluminum	ppm	64	<1	3	2
Chromium	ppm	8	0	<1	<1
Molybdenum	ppm	0	0	0	0
Nickel	ppm	3	<1	<1	<1
Titanium	ppm	5	0	<1	0
Silver	ppm	0	0	0	<1
Manganese	ppm	28	0	1	<1
Vanadium	ppm	<1	0	0	0



Additives

Calcium	ppm	405	2	35	21
Magnesium	ppm	136	<1	6	5
Zinc	ppm	18	2	9	6
Phosphorus	ppm	2251	2260	2327	2325
Barium	ppm	2	0	0	0
Boron	ppm	3	<1	2	6

Diagnosis

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. Iron and chromium ppm levels are abnormal. Aluminum ppm levels are noted. Gear wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. High amount of ingressed dirt has caused abrasive wear to the component. Viscosity of sample indicates oil is within SAE 80W140 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: MANSEL
Unique No: 5774439
Signed: Kevin Marson
Report Date: 05 May 2024

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Graphs

