

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR R944C 018096-793 - Swing Drive

Sample No: LH0270439

Oil Type: PETRO CANADA GEARLUBE TOS 75W90



SAMPLE INFORMATION

Sample Number	LH0270439	LH0230693	LH0192813	LH0222741
Sample Date	20 Sep 2023	28 Jul 2022	12 Jul 2022	28 Jan 2022
Machine Hours	25291	23850	23797	23267
Oil Hours	0	0	0	0
Oil Changed	Changed	Not Changd	Not Changd	Changed
Sample Status	SEVERE	ABNORMAL	ABNORMAL	ABNORMAL

GERDAU METALS

5402 OLD RICHMOND RD
NEPEAN, ON
CA K2R 1G7
Contact: Service Manager



OIL CONDITION

Visc @ 40°C	cSt	58.3	77.1	81.9	59.9
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T:
F:



CONTAMINATION

Water	%	---	---	---	0.180
Silicon	ppm	10	25	46	5
Sodium	ppm	2	7	8	2
Potassium	ppm	0	2	1	0

Diagnosis

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. Copper and lead ppm levels are severe. Bearing and/or bushing wear is indicated. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within SAE 80 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.



WEAR METALS

Iron	ppm	210	353	435	658
Copper	ppm	771	394	386	416
Lead	ppm	20	13	13	13
Tin	ppm	9	6	8	6
Aluminum	ppm	<1	<1	2	<1
Chromium	ppm	4	5	6	10
Molybdenum	ppm	5	4	4	12
Nickel	ppm	<1	1	2	2
Titanium	ppm	<1	1	3	0
Silver	ppm	<1	0	0	<1
Manganese	ppm	1	2	3	5
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	128	153	153	311
Magnesium	ppm	56	56	46	155
Zinc	ppm	308	219	190	489
Phosphorus	ppm	744	1030	1119	1022
Barium	ppm	0	0	0	0
Boron	ppm	64	125	116	160

Depot: GER540NEP
Unique No: 5645784
Signed: Bill Quesnel
Report Date: 25 Sep 2023



GRAPHS

