CONSTRUCTION EQUIPMENT

[DNA] LIEBHERR R934C T-Rex (S/N 20279) - Swing Drive

Sample No: LH0178238

Oil Type: KENDALL NS-MP HYPOID GEAR 80W90

SAMPLE INFORMATION

Sample Number		LH0178238	LH0224515		
Sample Date		14 Nov 2023	15 Sep 2022		
Machine Hours		10334	9870		
Oil Hours		1000	1000		
Oil Changed		Changed	Changed		
Sample Status		SEVERE	ABNORMAL		
OIL CONDITION					
Visc @ 40°C	cSt	<mark>()</mark> 62.1	52.8		

CONTAMINATION					
Water	%	0.083	NEG		
Silicon	ppm	0 5	0 2		
Sodium	ppm	2	○ <1		
Potassium	maa	02	\bigcirc 0		

Ä				
WEA WEA	R META	LS		
Iron	ppm	◯ 200	0 142	
Copper	ppm	200	0 217	
Lead	ppm	06	5	
Tin	ppm	01	○ <1	
Aluminum	ppm	0	0	
Chromium	ppm	0 23	0 15	
Molybdenum	ppm	0	◯ <1	
Nickel	ppm	0 <1	○ <1	
Titanium	ppm	0	0	
Silver	ppm	<1	0	
Manganese	ppm	2	0 1	
Vanadium	ppm	0	0	

0 **ADDITIVES** Calcium ppm 075 60 02 Magnesium 03 ppm 306 Zinc 368 ppm 494 Phosphorus ppm 0 490 Barium 0 ppm $\bigcirc 0$ Boron 06 ppm 06



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Diagnosis

We advise that you check for the source of water entry. 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.Chromium ppm levels are severe. Lead ppm levels are abnormal. Bearing wear is indicated. Free water present. Viscosity of sample indicates oil is within ISO 68 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.

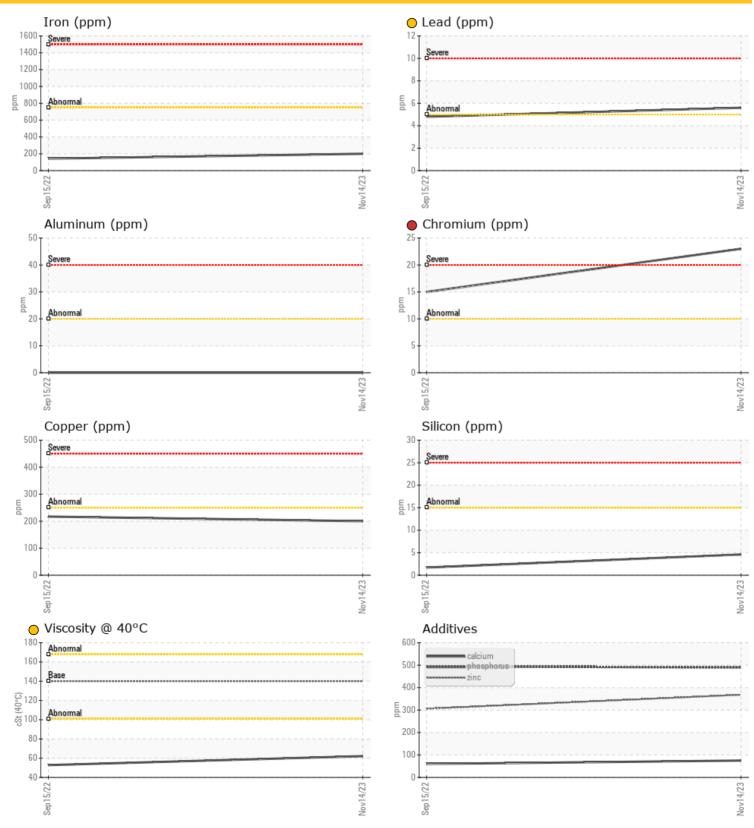
Depot:	DOMBUR
Unique No:	5682263
Signed:	Kevin Marson
Report Date:	20 Nov 2023





GRAPHS

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