CONSTRUCTION EQUIPMENT

LIEBHERR LH30M 1253-118648 - Diesel Engine

LIEBHERR MOTOROIL 5W-30 LOW ASH

Sample No: LH0244507

Oil Type:

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SAMPLE INFORMATION

Sample Number	LH0244507	LH0207310			
Sample Date	07 Mar 2023	09 Nov 2021			
Machine Hours	1690	952			
Oil Hours	738	952			
Oil Changed	Filtered	Changed			
Sample Status	NORMAL	ABNORMAL			

OIL CONDITION Visc @ 100°C cSt 0 10.9 11.6 -- -- Base Number (BN) mg KOH/g 0 11.1 -- -- -- Oxidation (PA) % 61 27 -- --

Water	%	NEG	NEG				
Soot %	%	0.1	0.2				
Nitration (PA)	%	104	51				
Sulfation (PA)	%	47	38				
Glycol	%	NEG	NEG				
Fuel	%	<1.0	<1.0				
Silicon	ppm	0 11	0 11				
Sodium	ppm	○ <1	03				
Potassium	ppm	04	5				

\bigcirc WEAR METALS Iron ppm 0 13 0 12 Copper 0 44 0 340 ppm Lead 0 <1 04 ppm Tin 01 $\bigcirc 2$ ppm Aluminum 01 $\bigcirc 2$ ppm Chromium ○ <1 ○ <1 ppm Molybdenum 09 0 59 ppm Nickel 0 0 <1 ppm Titanium <1 <1 ppm Silver <1 ppm 0 () 02 Manganese ppm **○** <1 Vanadium ppm 0 0

	ITIVES			
Calcium	ppm	0 4111	0 1393	
Magnesium	ppm	O 115	824	
Zinc	ppm	0 1174	848	
Phosphorus	ppm	998	631	
Barium	ppm	0 5	21	
Boron	ppm	247	○ 78	



T: F:

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. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.





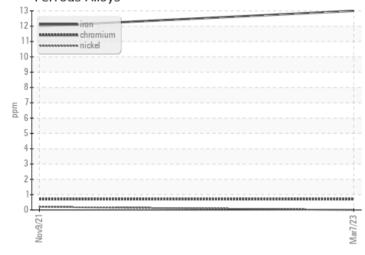




Ferrous Alloys

GRAPHS

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Non-ferrous Metals 350 copper lead 300 250 200 ppm 150 100 50 0. Mar7/23 Nov9/21 Viscosity @ 100°C 15 14 Abnormal 13 cSt (100°C) 11 cSt Bas 10 Abnormal 9 8 Nov9/21. Mar7/23 -

