



Machine Id LIEBHERR L566 1758-71605

Diesel Engine

LIEBHERR MOTOROIL 5W30 (--- GAL)

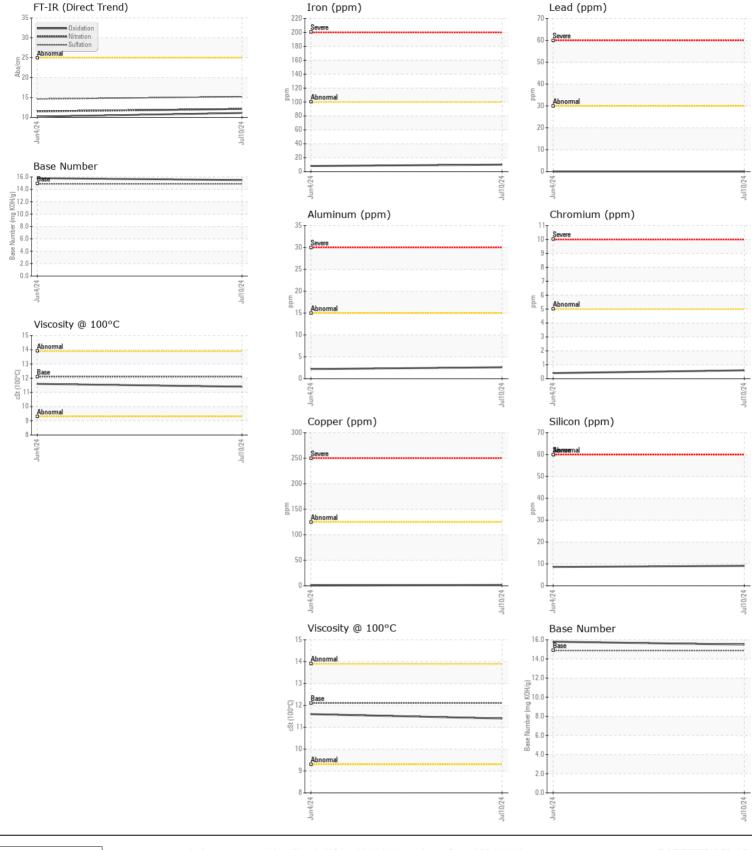
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RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		LH0277171		
	Sample Date		Client Info		10 Jul 2024	04 Jun 2024	
	Machine Age	hrs	Client Info		2470	2244	
	Oil Age	hrs	Client Info		0	0	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m	>100	10	8	
	Chromium	ppm	ASTM D5185m	>5	<1	<1	
	Nickel	ppm	ASTM D5185m	>5	0	0	
	Titanium	ppm	ASTM D5185m		0	0	
	Silver	ppm	ASTM D5185m	>3	0	0	
	Aluminum	ppm	ASTM D5185m	>15	3	2	
	Lead	ppm	ASTM D5185m	>30	0	0	
	Copper	ppm	ASTM D5185m	>125	2	<1	
	Tin	ppm	ASTM D5185m	>5	<1	<1	
	Vanadium	ppm	ASTM D5185m		0	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>60	9	9	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	<1	0	
	Fuel		WC Method	>5	<1.0	<1.0	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844	>3	0.1	0.1	
	Nitration	Abs/cm	*ASTM D7624	>20	12.1	11.5	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	15.2	14.6	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m		3	3	
	Boron	ppm	ASTM D5185m	236	250	249	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	0	
	Molybdenum	ppm	ASTM D5185m	0	<1	0	
	Manganese	ppm	ASTM D5185m		<1	<1	
	Magnesium	ppm	ASTM D5185m	25	43	34	
	Calcium	ppm	ASTM D5185m		4321	4424	
	Phosphorus	ppm	ASTM D5185m		1075	1096	
	Zinc	ppm			1204	1208	
	Sulfur	ppm	ASTM D5185m		3304	3285	
	Oxidation	Abs/.1mm	*ASTM D7414		11.1	10.2	
	Base Number (BN)				15.5	15.8	
	Vice @ 100°C	~C+		10.1	44.4	11.0	

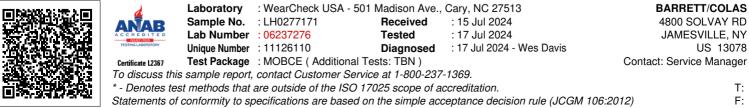
11.6

ASTM D445 12.1

11.4

Visc @ 100°C cSt





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