WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL NORMAL



LIEBHERR LH60M 155308

Component Diesel Engine

DIESEL ENGINE OIL SAE 10	0W30 (GAL)						
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
TEOOMMENDATION	Sample Number	COM	Client Info	Little7 ton	LH0285046		
Resample at the next service interval to monitor.	Sample Date		Client Info		02 Feb 2024		
	Machine Age	hrs	Client Info		474		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		N/A		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185(m)	>100	12		
Metal levels are typical for a new component breaking in.	Chromium	ppm	ASTM D5185(m)	>5	2		
	Nickel	ppm	ASTM D5185(m)	>5	0		
	Titanium	ppm	ASTM D5185(m)		0		
	Silver	ppm	ASTM D5185(m)	>3	0		
	Aluminum	ppm	ASTM D5185(m)	>15	4		
	Lead	ppm	ASTM D5185(m)	>30	6		
	Copper	ppm	ASTM D5185(m)	>125	148		
	Tin	ppm	ASTM D5185(m)	>5	1		
	Vanadium	ppm	ASTM D5185(m)		0		
	White Metal	scalar	Visual*	NONE	NONE		
	Yellow Metal	scalar	Visual*	NONE	VLITE		
CONTABINATION							
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>60	9		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)	>20	3		
	Fuel		WC Method		<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol	21	WC Method	0	NEG		
	Soot %	%	ASTM D7844*		0		
	Nitration	Abs/cm	ASTM D7624*	>20	12.8		
	Sulfation	Abs/.1mm	ASTM D7415*		41.3		
	Silt	scalar	Visual*	NONE	NONE		
	Debris	scalar	Visual*	NONE	NONE		
	Sand/Dirt	scalar	Visual*	NONE	NONE		
	Appearance	scalar	Visual*	NORML	NORML NORML		
	Odor Emulsified Water		Visual*	NORML	NEG		
		Scalar	visuai	>0.2	NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		2		
The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)	250	92		
	Barium	ppm		10	24		
	Molybdenum	ppm	ASTM D5185(m)		46		
	Manganese	ppm	ASTM D5185(m)		<1		
	Magnesium	ppm	ASTM D5185(m)	450	903		
	Calcium	ppm	ASTM D5185(m)	3000	1348		
	Phosphorus	ppm	ASTM D5185(m)	1150	663		
	Zinc	ppm	ASTM D5185(m)	1350	790		
	Sulfur	ppm	ASTM D5185(m)	4250	1909		
	Oxidation	Abs/.1mm	ASTM D7414*		53.8		
	Visc @ 100°C	cSt	ASTM D7279(m)		12.1		





CALA ISO 17025:2017 Accredited

Laboratory

Laboratory

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Sample No.

Lab Number : 02616186 Unique Number : 5733296

Received : LH0285046 **Tested** Diagnosed

: 16 Feb 2024 : 16 Feb 2024 - Kevin Marson

: 16 Feb 2024

Test Package : MOB 1 (Additional Tests: Visual)

To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

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