



Machine Id LIEBHERR L506 55808

Rear Differential

LIEBHERR GEAR BASIC 90 LS (--- LTR)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

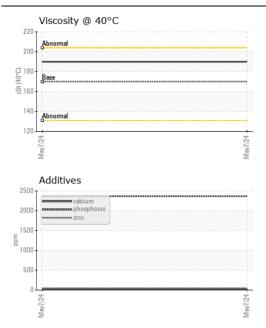
There is no indication of any contamination in the oil.

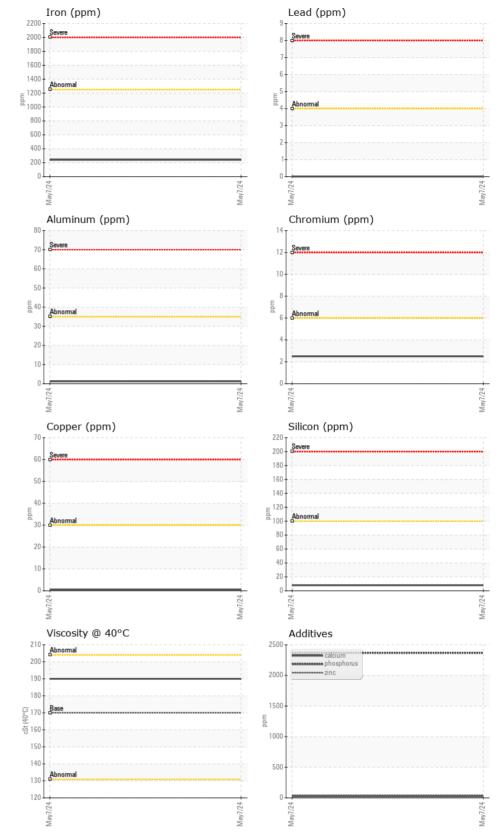
FLUID CONDITION

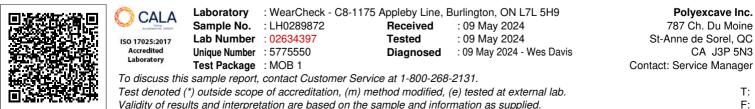
Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0289872		
Sample Date		Client Info		07 May 2024		
Machine Age	hrs	Client Info		447		
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		
			1050	044		
Iron	ppm	ASTM D5185(m)	>1250	241		
Chromium	ppm	ASTM D5185(m)	>6	2		
Nickel	ppm	ASTM D5185(m)	>4	<1		
Titanium	ppm	ASTM D5185(m)		<1		
Silver	ppm	ASTM D5185(m)	. 05	0		
Aluminum	ppm	ASTM D5185(m)	>35	1		
Lead	ppm	ASTM D5185(m)	>4	0		
Copper	ppm	ASTM D5185(m)	>30	<1		
Tin	ppm	ASTM D5185(m)	>4	0		
Vanadium	ppm	ASTM D5185(m)	NONE	0		
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	VLITE		
Silicon	ppm	ASTM D5185(m)	>100	8		
Silicon	ppm	ASTM D5185(m)	>100	8		
Silicon Potassium	ppm	ASTM D5185(m) ASTM D5185(m)	>100 >20	8 4		
Silicon Potassium Water	ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method	>100 >20 >.2	8 4 NEG		
Silicon Potassium Water Silt	ppm ppm scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual*	>100 >20 >.2 NONE	8 4 NEG NONE		
Silicon Potassium Water Silt Debris	ppm ppm scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual*	>100 >20 >.2 NONE NONE	8 4 NEG NONE NONE		
Silicon Potassium Water Silt Debris Sand/Dirt	ppm ppm scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual*	>100 >20 >.2 NONE NONE NONE	8 4 NEG NONE NONE NONE	 	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance	ppm ppm scalar scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual*	>100 >20 >.2 NONE NONE NONE NORML	8 4 NEG NONE NONE NONE NORML	 	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual*	>100 >20 >.2 NONE NONE NONE NORML NORML	8 4 NEG NONE NONE NONE NORML NORML NEG	 	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* Visual*	>100 >20 >.2 NONE NONE NORML NORML >.2	8 4 NEG NONE NONE NORML NORML NEG 12		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm ppm scalar scalar scalar scalar scalar scalar gpm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m)	>100 >20 >.2 NONE NONE NORML >.2	8 4 NEG NONE NONE NORML NORML NEG 12 3		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m)	>100 >20 >.2 NONE NONE NORML NORML >.2	8 4 NEG NONE NONE NORML NORML NEG 12 3 5		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>100 >20 >.2 NONE NORME NORML >.2 0 0 0	8 4 NEG NONE NONE NORML NEG 12 3 5 0		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>100 >20 >.2 NONE NONE NORML >.2 0 0 0 0 0	8 4 NEG NONE NONE NORML NORML NEG 12 3 5 0 8		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>100 >20 >.2 NONE NONE NORML >.2 0 0 0 0 0 0 0 0 0 2	8 4 NEG NONE NONE NORML NORML NEG 12 3 5 0 8 8 3		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>100 >20 >.2 NONE NONE NORML NORML >.2 0 0 0 0 0 0 0 1 2 1	8 4 NEG NONE NONE NORML NORML NEG 12 3 5 0 8 3 26		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>100 >20 >.2 NONE NONE NORML >.2 0 0 0 0 0 0 0 1 0 0 1 1 2 143	8 4 NEG NONE NONE NORML NORML NEG 12 3 5 0 8 3 2 6 2367		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>100 >20 >.2 NONE NONE NORML >.2 0 0 0 0 0 0 0 0 2 1 2 143 <1	8 4 NEG NONE NONE NORML NORML NEG 12 3 5 0 8 3 5 0 8 3 26 2367 41		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>100 >20 >.2 NONE NONE NORML >.2 0 0 0 0 0 0 0 1 0 0 1 1 2 143	8 4 NEG NONE NONE NORML NORML NEG 12 3 5 0 8 3 2 6 2367		

Contact/Location: Service Manager - POLSTA







Validity of results and interpretation are based on the sample and information as supplied.

Contact/Location: Service Manager - POLSTA Page 2 of 2