

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



LIEBHERR L524 020079-659

Front Differential

GEAR OIL SAE 80W90 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please note that this is a corrected copy for data entry updates.

WEAR

All component wear rates are normal.

CONTAMINATION

There is no indication of any contamination in the oil.

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Tost	LIOM	Method	l imit/∆hn	Current	History1	History2
Sample Number	00101	Client Info	LITTIU/NOT	VCD06152670	LHMC130501	
Sample Date		Client Info		02 Apr 2024	18 Mar 2010	
Machine Age	hre	Client Info		02 Api 2024	11557	
	hro	Client Info		0	0	
	hro	Client Info		0	0	
	1115	Client Info		U N/A	Changed	
Cil Changed		Client Info		N/A		
Sampla Statua						
					ADINORIVIAL	
Iron	ppm	ASTM D5185m	>1250	198	254	
Chromium	ppm	ASTM D5185m	>6	<1	<1	
Nickel	ppm	ASTM D5185m	>4	0	<1	
Titanium	ppm	ASTM D5185m		<1	<1	
Silver	ppm	ASTM D5185m		0	0	
Aluminum	ppm	ASTM D5185m	>35	<1	1	
Lead	ppm	ASTM D5185m	>4	0	<1	
Copper	ppm	ASTM D5185m	>30	<1	<1	
Tin	ppm	ASTM D5185m	>4	<1	0	
Vanadium	ppm	ASTM D5185m		0	0	
White Metal	scalar	*Visual	NONE	NONE	A HEAVY	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Silicon		4STM D5185m	<100	7	8	
Silicon	ppm	ASTM D5185m	>100	7	8	
Silicon Potassium Water	ppm ppm	ASTM D5185m ASTM D5185m WC. Method	>100 >20	7 2 NEG	8 0 NEG	
Silicon Potassium Water Silt	ppm ppm	ASTM D5185m ASTM D5185m WC Method	>100 >20 >.2	7 2 NEG NONE	8 0 NEG	
Silicon Potassium Water Silt Debris	ppm ppm scalar	ASTM D5185m ASTM D5185m WC Method *Visual	>100 >20 >.2 NONE	7 2 NEG NONE NONE	8 0 NEG NONE	
Silicon Potassium Water Silt Debris Sand/Dirt	ppm ppm scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual	>100 >20 >.2 NONE NONE	7 2 NEG NONE NONE	8 0 NEG NONE NONE	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance	ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual	>100 >20 >.2 NONE NONE NONE	7 2 NEG NONE NONE NONE	8 0 NEG NONE NONE NONE	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor	ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual	>100 >20 >.2 NONE NONE NORE NORML	7 2 NEG NONE NONE NONE NORML	8 0 NEG NONE NONE NONE NORML	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual	>100 >20 >.2 NONE NONE NORML NORML >.2	7 2 NEG NONE NONE NORE NORML NEG	8 0 NEG NONE NONE NONE NORML NEG	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual	>100 >20 >.2 NONE NONE NORML NORML >.2	7 2 NEG NONE NONE NONE NORML NORML NEG	8 0 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 gpm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>100 >20 >.2 NONE NONE NORML NORML >.2 >170	7 2 NEG NONE NONE NORML NORML NEG 2	8 0 NEG NONE NONE NORML NORML NEG	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>100 >20 >.2 NONE NONE NORML >.2 >170 400	7 2 NEG NONE NONE NORML NORML NEG 2 364	8 0 NEG NONE NONE NORML NORML NEG 1 325	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm scalar scalar scalar scalar scalar scalar scalar ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>100 >20 >.2 NONE NONE NORML NORML >.2 >170 400 200	7 2 NEG NONE NONE NORML NORML NEG 2 364 <1	8 0 NEG NONE NONE NORML NORML NEG 1 325 <1	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	>100 >20 >.2 NONE NONE NORML NORML >.2 >170 400 200 12	7 2 NEG NONE NONE NORML NORML NEG 2 364 <1 13	8 0 NEG NONE NONE NORML NORML NEG 1 325 <1 23	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>100 >20 >.2 NONE NONE NORML NORML >.2 >170 400 200 12	7 2 NEG NONE NONE NORML NEG 2 364 <1 13 2	8 0 NEG NONE NONE NORML NORML NEG 1 325 <1 23 1	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>100 >20 >.2 NONE NONE NORML >.2 >170 400 200 12	7 2 NEG NONE NONE NORML NORML NEG 2 364 <1 13 2 4	8 0 NEG NONE NONE NORML NORML NEG 1 325 <1 23 1 23 1 3	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Barium Molybdenum Manganese Magnesium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>100 >20 >.2 NONE NONE NORML NORML >.2 >170 400 200 12	7 2 NEG NONE NONE NORML NORML NEG 2 364 <1 13 2 4 2 2 4 22	8 0 NEG NONE NONE NORML NORML NEG 1 325 <1 23 (1 23 1 3 1 3 16	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>100 >20 >.2 NONE NONE NORML NORML >.2 >170 400 200 12 12 12 150 1650	7 2 NEG NONE NONE NORML NORML NEG 2 364 <1 13 2 4 2 2 4 2239	8 0 NEG NONE NONE NORML NORML NEG 1 325 <1 23 1 23 1 3 1 3 16 1956	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>100 >20 >.2 NONE NONE NORML NORML >.2 >170 400 200 12 12 12 150 1650 125	7 2 NEG NONE NONE NORML NORML NEG 2 364 <1 13 2 4 22 4 22 2239 3	8 0 NEG NONE NONE NORML NORML NEG 1 325 <1 23 (1 23 1 3 1 3 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Boron Barium Malybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>100 >20 >2 NONE NONE NORML NORML >.2 >170 400 200 12 12 12 150 125 22500	7 2 NEG NONE NONE NORML NORML 2 364 <1 13 2 4 22 4 22 2 36 3 3	8 0 NEG NONE NONE NORML NORML NEG 1 325 <1 23 (1 23 1 3 1 6 1 956 14 19558	

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Contact/Location: RYAN WISE - SIMCHIIL Page 2 of 2