

Machine Id LIEBI Component Rear D Fluid

LIEBHERR LH110 1227-155752

Rear Differential

GEAR OIL SAE 80W90 (--- GAL)

RECOM	MENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

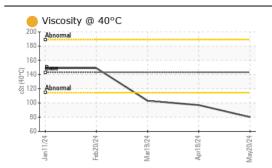
CONTAMINATION

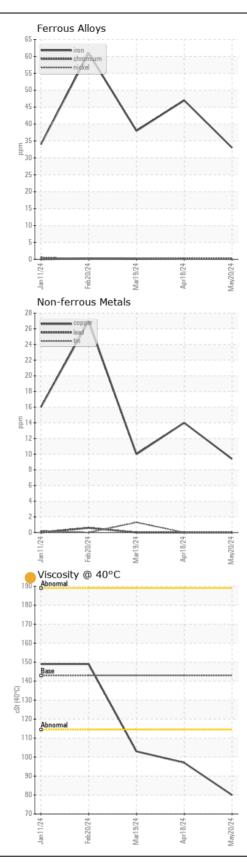
There is no indication of any contamination in the oil.

FLUID CONDITION

The oil viscosity is lower than normal. Confirm oil type. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0267547	LH0280582	LH0280582
Sample Date		Client Info		20 May 2024	18 Apr 2024	19 Mar 2024
Machine Age	hrs	Client Info		2578	1980	1544
Oil Age	hrs	Client Info		547	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		N/A	N/A	None
Sample Status				ATTENTION	ATTENTION	ATTENTION
Iron		ASTM D5185m	>150	33	47	38
Chromium	ppm	ASTM D5185m	>150			30 <1
Nickel	ppm	ASTM D5185m	>5 >10	<1 <1	<1 0	<1
Titanium	ppm	ASTM D5185m	>10	<1	<1	0
Silver	ppm	ASTM D5185m		<1 <1	0	0
	ppm		× F			-
Aluminum Lead	ppm	ASTM D5185m ASTM D5185m	>5 >5	5 0	<1 0	<1
	ppm	ASTM D5185m	>5 >125	9	14	10
Copper	ppm			9		1
Tin	ppm	ASTM D5185m	>5	-	0	
Vanadium	ppm	ASTM D5185m		<1 NONE	-	<1
White Metal Yellow Metal	scalar scalar	*Visual *Visual	NONE	NONE NONE	NONE	MODER
Yellow Ivietal						
		•1500				NONE
Silicon	ppm	ASTM D5185m	>20	7	5	4
Silicon	ppm	ASTM D5185m	>20	7	5	4
Silicon Potassium	ppm	ASTM D5185m ASTM D5185m	>20 >20	7 1	5 0	4 <1
Silicon Potassium Water	ppm ppm	ASTM D5185m ASTM D5185m WC Method	>20 >20 >20 >0.2	7 1 NEG	5 0 NEG	4 <1 NEG
Silicon Potassium Water Silt	ppm ppm scalar	ASTM D5185m ASTM D5185m WC Method *Visual	>20 >20 >0.2 NONE	7 1 NEG MODER	5 0 NEG NONE	4 <1 NEG NONE
Silicon Potassium Water Silt Debris	ppm ppm scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual	>20 >20 >0.2 NONE NONE	7 1 NEG MODER NONE	5 0 NEG NONE NONE	4 <1 NEG NONE NONE
Silicon Potassium Water Silt Debris Sand/Dirt	ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual	>20 >20 >0.2 NONE NONE NONE	7 1 NEG MODER NONE NONE	5 0 NEG NONE NONE NONE	4 <1 NEG NONE NONE NONE
Silicon Potassium Water Silt Debris Sand/Dirt Appearance	ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual	>20 >20 >0.2 NONE NONE NONE NORML	7 1 NEG MODER NONE NONE NORML	5 0 NEG NONE NONE NONE NORML	4 <1 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 D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual	>20 >20 >0.2 NONE NONE NORML NORML >0.2	7 1 NEG MODER NONE NONE NORML NORML NEG	5 0 NEG NONE NONE NONE NORML NEG	4 <1 NEG NONE NONE NORME NORML NEG
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>20 >20 >0.2 NONE NONE NORML NORML >0.2	7 1 NEG MODER NONE NONE NORML NEG 2	5 0 NEG NONE NONE NORML NORML NEG	4 <1 NEG NONE NONE NORML NORML NEG 1
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm ppm scalar scalar scalar scalar scalar scalar gppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>20 >20 >0.2 NONE NONE NORML >0.2 >170 400	7 1 NEG MODER NONE NORML NORML NEG 2 8	5 0 NEG NONE NONE NORML NORML NEG <1 0	4 <1 NEG NONE NONE NORML NORML NEG 1 2
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 D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>20 >20 >0.2 NONE NONE NORML NORML >0.2 >170 400 200	7 1 NEG MODER NONE NORML NORML NORML NEG 2 8 0	5 0 NEG NONE NONE NONE NORML NORML NEG <1 0 0	4 <1 NEG NONE NONE NORML NORML NEG 1 2 0
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 D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	>20 >20 >0.2 NONE NONE NORML >0.2 >170 400	7 1 NEG MODER NONE NORML NORML NEG 2 8 0 5	5 0 NEG NONE NONE NORML NORML NEG <1 0 0 1	4 <1 NEG NONE NONE NORML NORML NEG 1 2 0 2
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 ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >20 >0.2 NONE NORME NORML >0.2 >170 400 200	7 1 NEG MODER NONE NORML NORML NEG 2 8 0 5 5 <1	5 0 NEG NONE NONE NORML NORML NEG <1 0 0 1 1	4 <1 NEG NONE NONE NORML NORML NEG 1 2 0 2 <1
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 D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >20 >0.2 NONE NONE NORML >0.2 >170 400 200 12	7 1 NEG MODER NONE NORML NORML NEG 2 8 0 5 <1 45	5 0 NEG NONE NONE NORML NORML NORML NEG <1 0 0 1 1 1 4	4 <1 NEG NONE NONE NORML NORML NEG 1 2 0 2 <1 3
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 ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >20 >0.2 NONE NONE NORML NORML >0.2 >170 400 200 12	7 1 NEG MODER NONE NORML NORML NEG 2 8 0 5 <1 45 242	5 0 NEG NONE NONE NORML NORML NEG <1 0 0 1 1 1 4 4 178	4 <1 NEG NONE NORML NORML NORML NEG 1 2 0 2 <1 3 172
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 D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >20 >20 >0.2 NONE NORML >0.2 >170 400 200 12 12 150 1650 	7 1 NEG MODER NONE NORML NORML NEG 2 8 0 5 <1 45 242 352	5 0 NEG NONE NONE NORML NORML NORML NEG <1 0 0 1 1 1 4	4 <1 NEG NONE NONE NORML NORML NEG 1 2 0 2 <1 3 172 467
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm 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	 >20 >20 >0.2 NONE NORML >0.2 >170 400 200 12 12 150 125 	7 1 NEG MODER NONE NORML NORML NEG 2 2 8 0 5 <1 45 242 352 164	5 0 NEG NONE NONE NONE NORML NORML NEG <1 0 0 1 1 4 1 1 4 178 471 101	4 <1 NEG NONE NONE NORML NORML NEG 1 2 0 2 <1 3 172 467 90
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 D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >20 >20 >0.2 NONE NORML >0.2 >170 400 200 12 12 150 1650 	7 1 NEG MODER NONE NORML NORML NEG 2 8 0 5 <1 45 242 352	5 0 NEG NONE NONE NORML NORML NEG <1 0 0 1 1 1 4 178 471	4 4 NEG NONE NONE NORML NORML NORML NEG 1 2 <1 3 172 467





: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Laboratory Sample No. : LH0267547 Received : 28 May 2024 Lab Number : 06192610 Tested : 29 May 2024 Unique Number : 11049362 Diagnosed : 30 May 2024 - Don Baldridge Test Package : CONST To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

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Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Certificate L2367

Submitted By: ? Page 2 of 2

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