

Machine Id LIEBHERR LV20F L1819 (S/N 110919) Component Gearbox Fluid LIEBHERR SYNTOGEAR PLUS 220 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

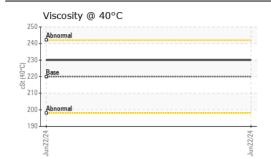
There is no indication of any contamination in the oil.

FLUID CONDITION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0273718		
Sample Date		Client Info		22 Jun 2024		
Machine Age	hrs	Client Info		833		
Oil Age	hrs	Client Info		81		
Filter Age	hrs	Client Info		81		
Oil Changed		Client Info		Changed		
Filter Changed		Client Info		Changed		
Sample Status				NORMAL		
			000	400		
Iron	ppm	ASTM D5185m	>200	108		
Chromium	ppm	ASTM D5185m	>10	1		
Nickel	ppm	ASTM D5185m	>10	<1		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	05	<1		
Aluminum	ppm	ASTM D5185m	>25	3		
Lead	ppm	ASTM D5185m	>50	<1		
Copper	ppm	ASTM D5185m	>200	3		
Tin	ppm	ASTM D5185m	>10	<1		
Vanadium	ppm	ASTM D5185m		<1		
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Silicon	ppm	ASTM D5185m	>50	4		
Potassium	ppm	ASTM D5185m	>20	2		
Water						
Waler		WC Method	>0.2	NEG		
Silt	scalar	WC Method *Visual	>0.2 NONE	NEG NONE		
	scalar scalar					
Silt		*Visual	NONE	NONE		
Silt Debris Sand/Dirt	scalar	*Visual *Visual	NONE NONE	NONE		
Silt Debris	scalar scalar	*Visual *Visual *Visual	NONE NONE NONE	NONE NONE NONE		
Silt Debris Sand/Dirt Appearance	scalar scalar scalar	*Visual *Visual *Visual *Visual	NONE NONE NORML	NONE NONE NORE		
Silt Debris Sand/Dirt Appearance Odor	scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual	NONE NONE NORML NORML	NONE NONE NORML NORML		
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual ASTM D5185m	NONE NONE NORML NORML	NONE NONE NORML NORML		
Silt Debris Sand/Dirt Appearance Odor Emulsified Water	scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual *Visual	NONE NONE NORML NORML	NONE NONE NORML NORML NEG		
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	scalar scalar scalar scalar scalar ppm	*Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	NONE NONE NORML NORML >0.2	NONE NONE NORML NORML NEG 0 19 <1		
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	scalar scalar scalar scalar scalar ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	NONE NONE NORML NORML >0.2	NONE NONE NORML NORML NEG 0 19		
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	scalar scalar scalar scalar scalar ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML NORML >0.2 513 0 0 <1	NONE NONE NORML NORML NEG 0 19 <1		
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	scalar scalar scalar scalar scalar ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	NONE NONE NORML NORML >0.2 513 0 0	NONE NONE NORML NORML NEG 0 19 <1 1		
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	scalar scalar scalar scalar ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML NORML >0.2 513 0 0 <1	NONE NONE NORML NORML NEG 0 19 <1 1 1		
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	scalar scalar scalar scalar ppm ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NONE NONE NORML >0.2 513 0 0 <1 939	NONE NONE NORML NORML NEG 0 19 <1 1 1 1 <1		
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NONE NORML NORML >0.2 513 0 0 <1 939 12	NONE NONE NORML NORML NEG 0 19 <1 1 1 1 1 4 1 8		
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML NORML >0.2 513 0 0 <1 939 12 1573	NONE NONE NORML NORML NEG 0 19 <1 1 1 1 1 1 8 397		

Contact/Location: WADE VANHAVEN - PETREILH



Ferrous Alloys 110 iron. 100 ne chr nickel 90 80 70 60 ppm 50 40 30 20 10 0 Jun22/24 Non-ferrous Metals 10 🖛 lead 8 bpm 2 0 Viscosity @ 40°C 245 Abnormal 240 235 230 225 cSt (40°C) 215 210 205 200 Abr 195 Jun22/24 -Jun22/24



* - Denotes tes	Sample No. Lab Number Unique Number Test Package s sample report, st methods that	: LH0273718 : 06225427 : 11103624 : CONST contact Customer Ser are outside of the ISO	Received Tested Diagnosed vice at 1-800-237 17025 scope of a	: 01 Jul 2024 : 02 Jul 2024 : 03 Jul 2024 - Jonathan Hester -1369. ccreditation.	PETERSON CONTRACTORS IN PO BOX REINBECK, I US 5066 Contact: WADE VANHAVEI MBERWALD@PCIUS.CON T M106:2012) F	A A 39 N
	Certificate 12367 To discuss this * - Denotes tes	Certificate L2367 To discuss this sample report, * - Denotes test methods that	Sample No. : LH0273718 Lab Number : 06225427 Unique Number : 11103624 To discuss this sample report, contact Customer Set * - Denotes test methods that are outside of the ISO	Sample No. : LH0273718 Received Lab Number : 06225427 Tested Unique Number : 11103624 Diagnosed Certificate L2367 Test Package : CONST To discuss this sample report, contact Customer Service at 1-800-237 * - Denotes test methods that are outside of the ISO 17025 scope of a	Sample No. : LH0273718 Received : 01 Jul 2024 Lab Number : 06225427 Tested : 02 Jul 2024 Unique Number : 11103624 Diagnosed : 03 Jul 2024 - Jonathan Hester 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.	Sample No. : LH0273718 Received : 01 Jul 2024 PO BOX Jul 2024 Lab Number : 06225427 Tested : 02 Jul 2024 REINBECK, Jul 2024 Unique Number : 11103624 Diagnosed : 03 Jul 2024 - Jonathan Hester US 5066 Certificate L2367 Test Package : CONST Contact: WADE VANHAVEL MBERWALD@PCIUS.COM

Contact/Location: WADE VANHAVEN - PETREILH Page 2 of 2