

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

Machine Id LIEBHERR HS895 188244

Rear Winch

GEAR OIL SAE 80 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 80. Please confirm.

WEAR

All component wear rates are normal.

CONTAMINATION

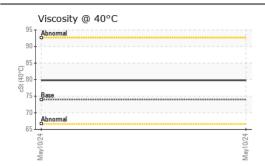
There is no indication of any contamination in the oil.

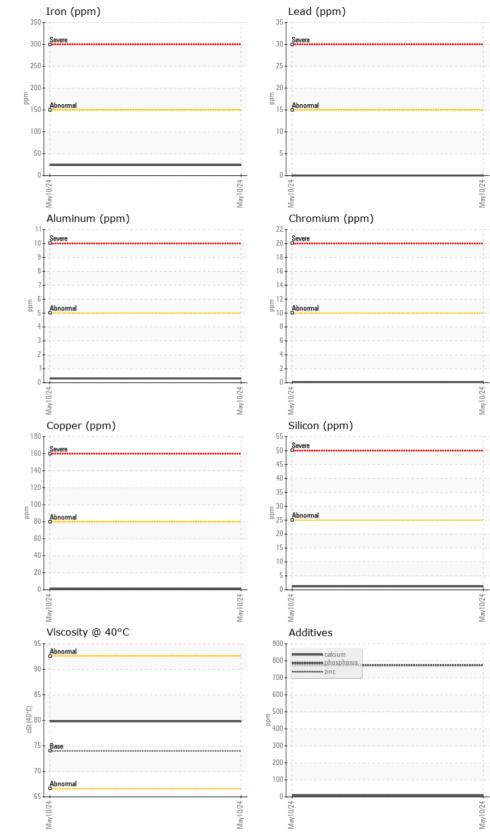
FLUID CONDITION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0289541		
Sample Date		Client Info		10 May 2024		
Machine Age	hrs	Client Info		21278		
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		
			. 150	04		
Iron	ppm	ASTM D5185(m)	>150	24		
Chromium	ppm	ASTM D5185(m)	>10	<1		
Nickel	ppm	ASTM D5185(m)	>10	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)	. 5	0		
Aluminum	ppm	ASTM D5185(m)	>5	<1		
Lead	ppm	ASTM D5185(m)	>15	0		
Copper	ppm	ASTM D5185(m)	>80	1		
Tin	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)	NONE	0		
White Metal	scalar	Visual*	NONE	VLITE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Yellow Metal Silicon	scalar ppm	ASTM D5185(m)	>25	NONE		
Silicon	ppm	ASTM D5185(m)	>25	1		
Silicon Potassium	ppm	ASTM D5185(m) ASTM D5185(m)	>25 >20	1 11		
Silicon Potassium Water	ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method	>25 >20 >0.2	1 11 NEG		
Silicon Potassium Water Silt	ppm ppm scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual*	>25 >20 >0.2 NONE	1 11 NEG NONE		
Silicon Potassium Water Silt Debris	ppm ppm scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual*	>25 >20 >0.2 NONE NONE	1 11 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*	>25 >20 >0.2 NONE NONE NONE	1 11 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*	>25 >20 >0.2 NONE NONE NONE NORML	1 11 NEG NONE NONE NONE NORML		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm ppm scalar scalar scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual*	>25 >20 >0.2 NONE NONE NONE NORML NORML	1 11 NEG NONE NONE NORE 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*	>25 >20 >0.2 NONE NONE NORML NORML >0.2	1 11 NEG NONE NONE NORML NORML NEG 8		
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)	 >25 >20 >0.2 NONE NORME NORML >0.2 400 	1 11 NEG NONE NONE NORML NORML NEG 8 36		
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)	>25 >20 >0.2 NONE NONE NORML NORML >0.2	1 11 NEG NONE NONE NORML NORML NEG 8 36 1		
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)	 >25 >20 >0.2 NONE NORME NORML >0.2 400 	1 11 NEG NONE NONE NORML NORML NEG 8 36 1 0		</th
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 D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	 >25 >20 >0.2 NONE NORME NORML >0.2 400 200 12 	1 11 NEG NONE NONE NORML NORML NEG 8 36 1 0 <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 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)	>25 >20 >0.2 NONE NONE NORML >0.2 400 200 12	1 11 NEG NONE NONE NORML NORML NEG 8 36 1 0 <1 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 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)	 >25 >20 >0.2 NONE NORM NORML >0.2 400 200 12 12 12 150 	1 11 NEG NONE NONE NORML NORML NEG 8 36 1 0 <1 1 8		
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)	 >25 >20 >0.2 NONE NORME NORML >0.2 400 200 12 12 150 1650 	1 11 NEG NONE NONE NORML NORML NEG 8 36 1 0 <1 1 8 36 1 1 0 4 1 8 36		
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 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)	 >25 >20 >0.2 NONE NORME NORML >0.2 400 200 12 150 1650 125 	1 11 NEG NONE NONE NORML NORML NEG 8 36 1 0 <1 1 8 36 1 0 <1 1 8 774 8		
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* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	 >25 >20 >0.2 NONE NORME NORML >0.2 400 200 12 12 150 1650 	1 11 NEG NONE NONE NORML NORML NEG 8 36 1 0 <1 1 8 36 1 1 0 4 1 8 36		

Contact/Location: Bernie Higgs - HIGSTT





HIGGS & HIGGS Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CALA Sample No. Received : 26 Jun 2024 : LH0289541 Lab Number : 02644204 Tested : 26 Jun 2024 ST THOMAS, ON ISO 17025:2017 Accredited Laboratory Unique Number : 5801743 Diagnosed : 26 Jun 2024 - Wes Davis Test Package : MOB 1 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. F: (519)631-2745

CA N5P 3S8 Contact: Bernie Higgs T: (519)631-4095

RR # 4

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Contact/Location: Bernie Higgs - HIGSTT Page 2 of 2