

Machine Id

LIEBHERR LR1400 CR4410 - 4.2 (S/N 0015-099)

Right Winch

GEAR OIL ISO 220 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

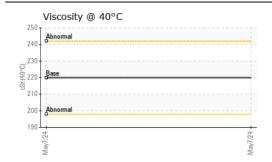
There is no indication of any contamination in the oil.

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		WC0892962		
Sample Date		Client Info		07 May 2024		
Machine Age	hrs	Client Info		9877		
Oil Age	hrs	Client Info		1252		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		Changed		
Filter Changed		Client Info		Changed		
Sample Status				NORMAL		
Iron		ASTM D5185m	>150	43		
	ppm					
Chromium	ppm	ASTM D5185m	>10	<1		
Nickel	ppm	ASTM D5185m	>10	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	-	0		
Aluminum	ppm	ASTM D5185m	>5	<1		
Lead	ppm	ASTM D5185m	>15	2		
Copper	ppm	ASTM D5185m	>80	<1		
Tin	ppm	ASTM D5185m		<1		
Vanadium	ppm	ASTM D5185m		0		
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Silicon	ppm	ASTM D5185m	>25	3		
Deterritory						
Potassium	ppm	ASTM D5185m	>20	4		
Water	ppm	ASTM D5185m WC Method	>20 >0.2	4 NEG		
	ppm scalar			-		
Water		WC Method	>0.2	NEG	 	
Water Silt	scalar	WC Method *Visual	>0.2 NONE	NEG NONE	 	
Water Silt Debris	scalar scalar	WC Method *Visual *Visual	>0.2 NONE NONE	NEG NONE LIGHT	 	
Water Silt Debris Sand/Dirt	scalar scalar scalar	WC Method *Visual *Visual *Visual	>0.2 NONE NONE NONE	NEG NONE LIGHT NONE		
Water Silt Debris Sand/Dirt Appearance	scalar scalar scalar scalar	WC Method *Visual *Visual *Visual *Visual	>0.2 NONE NONE NONE	NEG NONE LIGHT NONE NORML		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	scalar scalar scalar scalar scalar	WC Method *Visual *Visual *Visual *Visual *Visual *Visual	>0.2 NONE NONE NORML NORML	NEG NONE LIGHT NONE NORML	 	
Water Silt Debris Sand/Dirt Appearance Odor	scalar scalar scalar scalar scalar	WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>0.2 NONE NONE NORML NORML	NEG NONE LIGHT NONE NORML NEG 0	 	
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	scalar scalar scalar scalar scalar scalar	WC Method *Visual *Visual *Visual *Visual *Visual *Visual	>0.2 NONE NONE NORML NORML	NEG NONE LIGHT NONE NORML NORML NEG	 	
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	scalar scalar scalar scalar scalar scalar scalar	WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>0.2 NONE NONE NORML NORML >0.2	NEG NONE LIGHT NORML NORML NEG 0 <1 0	 	
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	scalar scalar scalar scalar scalar scalar ppm	WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>0.2 NONE NONE NORML NORML >0.2	NEG NONE LIGHT NORML NORML NEG 0 <1 0 0		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese	scalar scalar scalar scalar scalar scalar ppm ppm	WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >0.2 NONE NONE NORML >0.2 50 15 	NEG NONE LIGHT NORML NORML NEG 0 <1 0 <1 0 <1		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium	scalar scalar scalar scalar scalar scalar ppm ppm ppm	WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >0.2 NONE NONE NORML >0.2 50 15 	NEG NONE LIGHT NORML NORML NEG 0 <1 0 0		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese	scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm	WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>0.2 NONE NONE NORML NORML >0.2 50 15 15	NEG NONE LIGHT NORML NORML NEG 0 <1 0 <1 0 <1		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >0.2 NONE NORME NORML >0.2 50 15 50 	NEG NONE LIGHT NORML NORML NEG 0 <1 0 <1 0 <1 2		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium Calcium	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >0.2 NONE NONE NORML >0.2 50 15 50 50 50 50 50 	NEG NONE LIGHT NORML NORML NEG 0 <1 0 <1 0 <1 2 7		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >0.2 NONE NONE NORML >0.2 50 15 15 50 50 50 50 350 	NEG NONE LIGHT NONE NORML NEG 0 <1 0 <1 0 <1 2 7 420		

Contact/Location: MICHAEL LAWSON - BUCGRA



Ferrous Alloys 45 40 nicke 35 30 25 15 10 0 201 /lav7//24 Mav Non-ferrous Metals 10 lead maa Mav7 Viscosity @ 40°C 24 240 235 230 22! C20 (40°C) 21 210 205 20 Abnorma 195 May7/24 . Mav7/24



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