

# WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

#### Machine Id CR1221 Component 1 Swing Drive Fluid GEAR OIL ISO 220 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

#### WEAR

All component wear rates are normal.

### CONTAMINATION

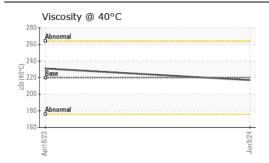
There is no indication of any contamination in the oil.

## 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		WC0922208	WC0776974	
Sample Date		Client Info		09 Jun 2024	18 Apr 2023	
Machine Age	hrs	Client Info		3207	2157	
Oil Age	hrs	Client Info		1000	0	
Filter Age	hrs	Client Info		0	0	
Oil Changed		Client Info		Changed	Changed	
Filter Changed		Client Info		N/A	Changed	
Sample Status				NORMAL	ABNORMAL	
Iron		ASTM D5185m	>400	0	0	
Iron Chromium	ppm	ASTM D5185m		2	3	
	ppm	ASTM D5185m	>10	<1	-	
Nickel	ppm		>10	<1	0	
Titanium	ppm	ASTM D5185m		<1	0	
Silver	ppm	ASTM D5185m	05	0	0	
Aluminum	ppm	ASTM D5185m	>25	1	0	
Lead	ppm	ASTM D5185m	>50	<1	0	
Copper	ppm	ASTM D5185m	>200	<1	0	
Tin	ppm	ASTM D5185m	>10	0	0	
Vanadium	ppm	ASTM D5185m	NONE	0	0	
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Silicon	ppm	ASTM D5185m	>50	1	<1	
				•		
Potassium	ppm	ASTM D5185m	>20	<1	<1	
Potassium Water	ppm	ASTM D5185m WC Method	>20 >0.2	-		
	ppm scalar			<1	<1	
Water		WC Method	>0.2	<1 NEG	<1 NEG	
Water Silt	scalar	WC Method *Visual	>0.2 NONE	<1 NEG NONE	<1 NEG NONE	
Water Silt Debris	scalar scalar	WC Method *Visual *Visual	>0.2 NONE NONE	<1 NEG NONE NONE	<1 NEG NONE MODER	
Water Silt Debris Sand/Dirt	scalar scalar scalar	WC Method *Visual *Visual *Visual	>0.2 NONE NONE NONE	<1 NEG NONE NONE NONE	<1 NEG NONE MODER NONE	
Water Silt Debris Sand/Dirt Appearance	scalar scalar scalar scalar	WC Method *Visual *Visual *Visual *Visual	>0.2 NONE NONE NONE NORML	<1 NEG NONE NONE NONE NORML	<1 NEG NONE MODER NONE NORML	   
Water Silt Debris Sand/Dirt Appearance Odor	scalar scalar scalar scalar scalar	WC Method *Visual *Visual *Visual *Visual	>0.2 NONE NONE NORML NORML	<1 NEG NONE NONE NONE NORML NORML	<1 NEG NONE MODER NONE NORML NORML	  
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	scalar scalar scalar scalar scalar scalar	WC Method *Visual *Visual *Visual *Visual *Visual *Visual	>0.2 NONE NONE NORML NORML	<1 NEG NONE NONE NORML NORML NEG	<1 NEG NONE NONE NORML NORML NEG	   
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	scalar scalar scalar scalar scalar scalar scalar	WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>0.2 NONE NONE NORML NORML >0.2	<1 NEG NONE NONE NORML NORML NEG 0	<1 NEG NONE NORM NORML NEG	   
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	scalar scalar scalar scalar scalar scalar ppm	WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>0.2 NONE NONE NORML NORML >0.2	<1 NEG NONE NONE NORML NORML NEG 0 7	<1 NEG NONE NONE NORML NORML NEG <1 18	
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	scalar scalar scalar scalar scalar scalar ppm ppm	WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	<ul> <li>&gt;0.2</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>&gt;0.2</li> <li>50</li> <li>15</li> </ul>	<1 NEG NONE NONE NORML NORML NEG 0 7 0	<1 NEG NONE NONE NORML NORML NEG <1 18 0	
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	scalar scalar scalar scalar scalar scalar ppm ppm ppm	WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	<ul> <li>&gt;0.2</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>&gt;0.2</li> <li>50</li> <li>15</li> </ul>	<1 NEG NONE NONE NORML NORML NEG 0 7 0 7	<1 NEG NONE NONE NORML NORML NEG	
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	scalar scalar scalar scalar scalar ppm ppm ppm ppm	WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>0.2 NONE NONE NORML NORML >0.2 50 15 15	<1 NEG NONE NONE NORML NORML NEG 0 7 0 7 0 2	<1 NEG NONE NONE NORML NORML NEG <1 18 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	<ul> <li>&gt;0.2</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>&gt;0.2</li> <li>50</li> <li>15</li> <li>50</li> </ul>	<1 NEG NONE NONE NORML NORML NEG 0 7 0 7 0 <1 0 0	<1 NEG NONE NONE NORML NORML NEG  18 0 0 0  1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
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	<ul> <li>&gt;0.2</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>&gt;0.2</li> <li>50</li> <li>15</li> <li>50</li> <li>50</li> <li>50</li> <li>50</li> <li>50</li> </ul>	<1 NEG NONE NONE NORML NORML NEG 0 7 0 <1 0 <1 0 0 0 0	<1 NEG NONE NONE NORML NORML NEG  11 N8 N0 NEG  11 N8 0  0  1  14	
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	<ul> <li>&gt;0.2</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>&gt;0.2</li> <li>50</li> <li>15</li> <li>15</li> <li>50</li> <li>50</li> <li>50</li> <li>50</li> <li>350</li> </ul>	<1 NEG NONE NONE NORML NORML NEG 0 7 0 2 7 0 378	<1 NEG NONE NONE NORML NORML NORML 1 18 0 <1 18 0 <1 0 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1<	

Contact/Location: MICHAEL LAWSON - BUCGRA



Ferrous Alloys 10 bpm 0 lor. Non-ferrous Metals 10 lead maa Vor18/73 Viscosity @ 40°C 270 260 250 240 230 cSt (40°C) 210 200 190 180 Abnorma 170 8/73 lun9/24 Apr1

**BUCKNER HEAVY LIFT** Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : WC0922208 Received 4732 NC 54 EAST : 14 Jun 2024 Lab Number : 06210529 Tested GRAHAM, NC : 17 Jun 2024 Unique Number : 11083393 Diagnosed : 17 Jun 2024 - Wes Davis US 27253-9215 Test Package : CONST Contact: MICHAEL LAWSON To discuss this sample report, contact Customer Service at 1-800-237-1369. michaell@bucknercompanies.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (336)376-8888 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (336)376-4090

Certificate L2367

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