

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id **HC2226** Component 1 Swing Drive Fluid 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.

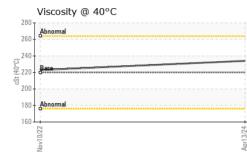
Fluid Condition

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

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0922169	WC0720426	
Sample Date		Client Info		13 Apr 2024	10 Nov 2022	
Machine Age	hrs	Client Info		8369	6707	
Oil Age	hrs	Client Info		926	0	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	ABNORMAL	
CONTAMINATION	١	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>400	85	3	
Chromium	ppm	ASTM D5185m	>10	<1	0	
Nickel	ppm	ASTM D5185m	>10	<1	0	
Titanium	ppm	ASTM D5185m		<1	0	
Silver	ppm	ASTM D5185m		<1	0	
Aluminum	ppm	ASTM D5185m	>25	1	<1	
Lead	ppm	ASTM D5185m	>50	0	<1	
Copper	ppm	ASTM D5185m	>200	<1	<1	
Tin	ppm	ASTM D5185m	>10	<1	<1	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		<1	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	0	4	
Barium	ppm	ASTM D5185m	15	0	0	
Molybdenum	ppm	ASTM D5185m	15	<1	<1	
Manganese	ppm	ASTM D5185m		2	0	
Magnesium	ppm	ASTM D5185m	50	2	3	
Calcium	ppm	ASTM D5185m	50	8	14	
Phosphorus	ppm	ASTM D5185m	350	224	273	
Zinc	ppm	ASTM D5185m	100	2		
Sulfur	le le			2	0	
	ppm	ASTM D5185m	12500	2 1190	0 149	
CONTAMINANTS		ASTM D5185m method		_		
		method	12500 limit/base	1190 current	149 history1	
Silicon	ppm	method ASTM D5185m	12500	1190 current 16	149 history1 2	
		method	12500 limit/base >50	1190 current	149 history1	
Silicon Sodium	ppm ppm	method ASTM D5185m ASTM D5185m	12500 limit/base >50	- 1190 current 16 1	149 history1 2 0	 history2
Silicon Sodium Potassium	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	12500 limit/base >50 >20	1190 current 16 1 2	149 history1 2 0 3	 history2
Silicon Sodium Potassium VISUAL	ppm ppm ppm scalar	method ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	12500 limit/base >50 >20 limit/base NONE	1190 current 16 1 2 current	149 history1 2 0 3 history1 NONE	 history2 history2
Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm scalar scalar	method ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	12500 limit/base >50 >20 limit/base NONE NONE	1190 current 16 1 2 current NONE	149 history1 2 0 3 history1 NONE NONE	 history2 history2
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm scalar scalar scalar	method ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual	12500 limit/base >50 >20 limit/base NONE NONE NONE	1190 current 16 1 2 current NONE NONE NONE	149 history1 2 0 3 history1 NONE NONE NONE	 history2 history2
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm scalar scalar scalar scalar	method ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual	12500 limit/base >50 >20 limit/base NONE NONE NONE NONE	1190 current 16 1 2 current NONE NONE NONE NONE MODER	149 history1 2 0 3 history1 NONE NONE NONE NONE NONE	 history2 history2
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm scalar scalar scalar scalar scalar scalar	method ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual	12500 limit/base >50 >20 limit/base NONE NONE NONE NONE NONE	1190 current 16 1 2 current NONE NONE NONE NONE NONE NONE	149 history1 2 0 3 history1 NONE NONE NONE NONE NONE NONE	 history2 history2
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm scalar scalar scalar scalar scalar scalar	method ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual	12500 limit/base >50 >20 limit/base NONE NONE NONE NONE NONE NONE	1190 current 16 1 2 current NONE NONE NONE NONE NONE NONE NONE NON	149 history1 2 0 3 history1 NONE NONE NONE NONE NONE NONE NONE	 history2 history2
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar scalar	method ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	12500 limit/base >50 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NON	1190 current 16 1 2 current NONE NONE NONE NONE NONE NONE NONE NON	149 history1 2 0 3 history1 NONE NONE NONE NONE NONE NONE NONE NON	 history2 history2
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar scalar	method ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	12500 limit/base >50 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NORML NORML	1190 current 16 1 2 current NONE NONE NONE NONE NONE NONE NONE NON	149 history1 2 0 3 3 history1 NONE NONE NONE NONE NONE NONE NONE NORE NOR	 history2 history2
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar scalar	method ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	12500 limit/base >50 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NON	1190 current 16 1 2 current NONE NONE NONE NONE NONE NONE NONE NON	149 history1 2 0 3 history1 NONE NONE NONE NONE NONE NONE NONE NON	 history2 history2



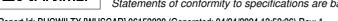
OIL ANALYSIS REPORT



	FLUID PROPER	TIES	method	limit/base	current	history1	history2
	Visc @ 40°C	cSt A	STM D445	220	234	223	
	SAMPLE IMAGE	ES	method	limit/base	current	history1	history2
47	Color					no image	no image
April 3/24	Bottom					no image	no image
	GRAPHS						
	Ferrous Alloys						
	80 - iron know chromium			1			
	70 nickel		/				
	60	/					
	E ⁵⁰ 40	/					
	30						
	10-						
	0 22 82			Apr13/24			
	Nov10/22			Apr1			
	Non-ferrous Meta	als					
	9 copper 8 copper 8 copper						
	7						
	6- E_ 5-						
	4 -						
	3						
	Nov10/22			Apr13/24			
				Apr			
	Viscosity @ 40°C						
	260						
	240 -						
	230 ₽ 220 ₽ ₽ 220 ₽ ₽ 0 0 0 0 0 0 0 0 0 0						
	형 ₂₁₀						
	200						
	180 - Abnormal						
	170			/24			
	Nov10/22			Apr13/24			
Laboratory Sample No.	: WearCheck USA - 5 : WC0922169	01 Madison Receive		, NC 27513 Apr 2024			(NER - WILLIS WY 75 NORTH
Lab Number	: 06153838	Tested Diagnos	: 24	Apr 2024 Apr 2024 - Jonat	han Uastar		WILLIS, TX
Unique Number Test Package			US 77378 Contact: JOHN HAWKINS				

Centificate 12367 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.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)



Contact/Location: JOHN HAWKINS - BUCWILTX

johnh@bucknercompanies.com

T:

F: