

OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id CR-3305 Component 1 Swing Drive Fluid

GEAR OIL ISO 220 (--- GAL)

DIAGNOSIS

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.

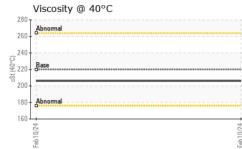
Fluid Condition

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		WC0893078		
Sample Date		Client Info		10 Feb 2024		
Machine Age	hrs	Client Info		10157		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINATION	١	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>400	<1		
Chromium	ppm	ASTM D5185m	>10	<1		
Nickel	ppm	ASTM D5185m	>10	<1		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>25	<1		
Lead	ppm	ASTM D5185m	>50	0		
Copper	ppm	ASTM D5185m	>200	0		
Tin	ppm	ASTM D5185m	>10	0		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	1		
Barium	ppm	ASTM D5185m	15	0		
Molybdenum	ppm	ASTM D5185m	15	0		
				<1		
Manganese	ppm	ASTM D5185m		<1		
Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m	50	3		
-			50 50			
Magnesium	ppm	ASTM D5185m		3		
Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m	50	3 4		
Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	50 350	3 4 301		
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 350 100	3 4 301 2		
Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 350 100 12500	3 4 301 2 3273	 	
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	50 350 100 12500 limit/base	3 4 301 2 3273 current	 	
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	50 350 100 12500 limit/base >50	3 4 301 2 3273 current <1	 	
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 350 100 12500 limit/base >50	3 4 301 2 3273 current <1 0	 history1 	 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 350 100 12500 limit/base >50 >20	3 4 301 2 3273 current <1 0 0	 history1 	 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 350 100 12500 limit/base >50 >20 limit/base	3 4 301 2 3273 current <1 0 0 0	 history1 history1	 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm ppm scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	50 350 100 12500 limit/base >50 >20 limit/base NONE	3 4 301 2 3273 current <1 0 0 0 current NONE	 history1 history1 	 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	50 350 100 12500 imit/base >50 >20 imit/base NONE NONE	3 4 301 2 3273 current <1 0 0 0 current NONE NONE	 history1 history1 history1	 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual	50 350 100 12500 imit/base >50 >20 imit/base NONE NONE NONE NONE	3 4 301 2 3273 current <1 0 0 0 current NONE NONE NONE NONE	 history1 history1 history1	 history2 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual	50 350 100 12500 imit/base >50 >20 imit/base NONE NONE NONE NONE NONE	3 4 301 2 3273 current <1 0 0 0 current NONE NONE NONE NONE NONE	 history1 history1 history1 	 history2 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL VISUAL Vhite Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual	50 350 100 12500 Imit/base >50 >20 Imit/base NONE NONE NONE NONE NONE NONE	3 4 301 2 3273 current <1 0 0 0 current NONE NONE NONE NONE NONE NONE	 history1 history1 	 history2 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual	50 350 100 12500 Imit/base >50 >20 Imit/base NONE NONE NONE NONE NONE NONE NONE	3 4 301 2 3273 current <1 0 0 0 current NONE NONE NONE NONE NONE NONE	 history1 history1 history1 	 history2 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Potassium VISUAL White Metal Yellow Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	50 350 100 12500 imit/base >50 >20 imit/base NONE NONE NONE NONE NONE NONE NONE NON	3 4 301 2 3273 current <1 0 0 0 current NONE NONE NONE NONE NONE NONE NONE NON	 history1 history1 	 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	50 350 100 12500 imit/base >50 >20 imit/base NONE NONE NONE NONE NONE NONE NONE NON	3 4 301 2 3273 current <1 0 0 0 current NONE NONE NONE NONE NONE NONE NONE NON	 history1 history1 -	 history2 history2 history2



OIL ANALYSIS REPORT



1	FLUID PROPER	OPERTIES method limit/base			current	history1	history2
	Visc @ 40°C	cSt	ASTM D445	220	206		
	SAMPLE IMAGE	ES	method	limit/base	current	history1	history2
4	Color				no image	no image	no image
Feb 10/24	Bottom				no image	no image	no image
	GRAPHS						
	Ferrous Alloys						
	9 - iron						
	8 - nickel						
	6- E_5-						
	4						
	2						
	Feb10/24			Feb10/24			
	Non-ferrous Met	als		μ.			
	9 copper						
	8						
	6+ E_ 5+						
	4						
	3						
	Feb 10/24			Feb10/24			
	Viscosity @ 40°C	2		LE.			
	270 260						
	250						
	240 ⊇ 230 ♀ 220 - Base						
	€ 220 - Base 3 210						
	200 -						
	190 - Abnormal						
	0						
	170						
	170 ++			Feb10/24			
boratory mple No.		01 Madison Receiv Tested	ed : 26				(NER - WILLIS WY 75 NORTH WILLIS, TX

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)