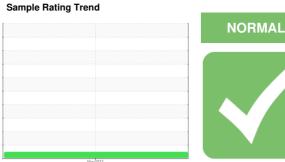


OIL ANALYSIS REPORT

Area **STORE 728**Machine Id [STORE 728] 728-GRILL/ROCKER

Hydraulic Power Pack {not provided} (--- GAL)



DIAGNOSIS

Recommendation

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

All component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

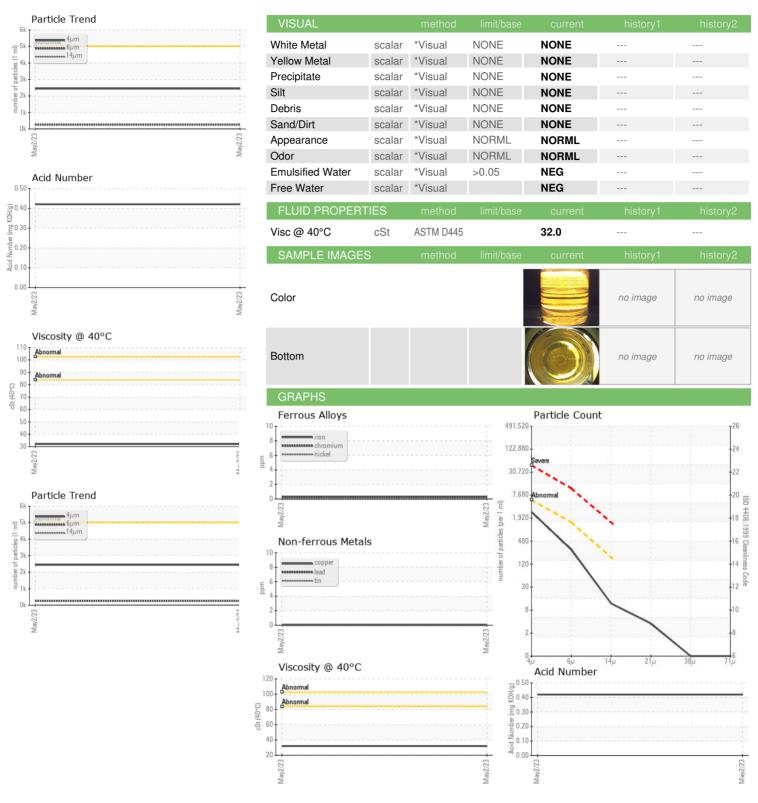
Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Client Info					May2023		
Client Info WC0706612							
Client Info	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age yrs Client Info 0	Sample Number		Client Info		WC0706612		
Oil Age yrs Client Info N/A Oil Changed Client Info N/A Sample Status Imition NORMAL WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 Chromium ppm ASTM D5185m >20 0 Nickel ppm ASTM D5185m 20 0 Silver ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m 20 0 Aluminum ppm ASTM D5185m 20 0 Lead ppm ASTM D5185m 20 0 Copper ppm ASTM D5185m 20 0 Tin ppm <td>Sample Date</td> <td></td> <td>Client Info</td> <td></td> <td>02 May 2023</td> <td></td> <td></td>	Sample Date		Client Info		02 May 2023		
Colic Changed Colient Info N/A NORMAL Color Colo	Machine Age	yrs	Client Info		0		
Sample Status method limit/base current history1 history2 Iron ppm ASTM D5185m >20 <1	Oil Age	yrs	Client Info		0		
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 <1	Oil Changed		Client Info				
Chromium	Sample Status				NORMAL		
Chromium ppm ASTM D5185m >20 0 Nickel ppm ASTM D5185m >20 0 Titianium ppm ASTM D5185m 0 Siliver ppm ASTM D5185m 0 Lead ppm ASTM D5185m >20 0 Lead ppm ASTM D5185m >20 0 Lead ppm ASTM D5185m >20 0 Copper ppm ASTM D5185m >20 0 Tin ppm ASTM D5185m >20 0 Vanadium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Barium ppm ASTM D5185m 0 Maloghe	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>20	<1		
Titanium	Chromium	ppm	ASTM D5185m	>20	0		
Silver	Nickel	ppm	ASTM D5185m	>20	0		
ASTM D5185m >20	Titanium	ppm	ASTM D5185m		0		
Lead	Silver	ppm	ASTM D5185m		0		
Copper ppm ASTM D5185m >20 0 Tin ppm ASTM D5185m >20 0 Vanadium ppm ASTM D5185m <1	Aluminum	ppm	ASTM D5185m	>20			
Tin	Lead	ppm	ASTM D5185m	>20	0		
Vanadium ppm ASTM D5185m <1 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Manganese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 3 Calcium ppm ASTM D5185m 304 Phosphorus ppm ASTM D5185m 304 Zinc ppm ASTM D5185m 394 Sulfur ppm ASTM D5185m 394 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 0	Copper	ppm	ASTM D5185m	>20	0		
Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Manganese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 3 Calcium ppm ASTM D5185m 304 Phosphorus ppm ASTM D5185m 394 Zinc ppm ASTM D5185m 394 Sulfur ppm ASTM D5185m 568 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 0	Tin	ppm		>20			
ADDITIVES		ppm	ASTM D5185m				
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Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 Manganese ppm ASTM D5185m <1	Boron	ppm	ASTM D5185m		0		
Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 0 Calcium ppm ASTM D5185m 304 Phosphorus ppm ASTM D5185m 394 Zinc ppm ASTM D5185m 568 Sulfur ppm ASTM D5185m 568 Sulfur ppm ASTM D5185m 568 Solium ppm ASTM D5185m 0 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m 0 Potassium ppm ASTM D6304 >0.05 NEG Paticles >4μm ASTM D6304 >0.05 NEG Particles >54μm ASTM D7647 >5000 2443	Barium	ppm	ASTM D5185m		0		
Magnesium ppm ASTM D5185m 0 Calcium ppm ASTM D5185m 304 Phosphorus ppm ASTM D5185m 394 Zinc ppm ASTM D5185m 568 Sulfur ppm ASTM D5185m 568 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 0 Sodium ppm ASTM D5185m >20 0 Potassium ppm ASTM D5185m >20 0 Water % ASTM D5185m >20 0 Water % ASTM D5185m >20 0 Particles >4µm ASTM D6304 >0.05 NEG Particles >6µm	Molybdenum	ppm	ASTM D5185m		0		
Calcium ppm ASTM D5185m 3 Phosphorus ppm ASTM D5185m 304 Zinc ppm ASTM D5185m 394 Sulfur ppm ASTM D5185m 568 Sulfur ppm ASTM D5185m >15 0 Sodium ppm ASTM D5185m >15 0 Sodium ppm ASTM D5185m >20 0 Potassium ppm ASTM D5185m >20 0 Water % ASTM D5185m >20 0 Paticles Sium ppm ASTM D5185m >20 0 Water % ASTM D5185m 0 0 FLUID CLEANLINESS method limit/base current history1 history2	Manganese	ppm	ASTM D5185m		<1		
Phosphorus ppm ASTM D5185m 304 Zinc ppm ASTM D5185m 394 Sulfur ppm ASTM D5185m 568 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 0 Sodium ppm ASTM D5185m >20 0 Potassium ppm ASTM D5185m >20 0 Water % ASTM D5185m >20 0 Water % ASTM D6304 >0.05 NEG FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >100 10 Particles >21μm ASTM D7647 >40 3	Magnesium	ppm	ASTM D5185m		0		
Zinc ppm ASTM D5185m 394 Sulfur ppm ASTM D5185m 568 Solfur ppm ASTM D5185m 568 Solfur ppm ASTM D5185m >15 0 Solfur ppm ASTM D5185m >15 0 Potassium ppm ASTM D5185m >20 0 Potassium ppm ASTM D6304 >0.05 NEG Putaticles >4μm ASTM D7647 >5000 2443 Particles >6μm ASTM D7647 >1300 254 Particles >21μm ASTM D7647 >160 10 Particles >21μm ASTM D7647 >10 0 Particles >71μm ASTM D7647 >3 0 Particles SO 4406 (c) >19/17/14 18/15/10 Particles SO 4406 (c) >19/17/14 18/15/10 Particles SO 4406 (c)	Calcium	ppm	ASTM D5185m		3		
Sulfur ppm ASTM D5185m 568 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 0 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 0 Water % ASTM D5185m >20 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >1300 254 Particles >21µm ASTM D7647 >40 3	Phosphorus	ppm			304		
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 0 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 0 Water % ASTM D5185m >20 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >5000 2443 Particles >6μm ASTM D7647 >160 10 Particles >21μm ASTM D7647 >40 3 Particles >38μm ASTM D7647 >3 <t< td=""><td>Zinc</td><td>ppm</td><td>ASTM D5185m</td><td></td><td>394</td><td></td><td></td></t<>	Zinc	ppm	ASTM D5185m		394		
Silicon ppm ASTM D5185m >15 0 Sodium ppm ASTM D5185m 0	Sulfur	ppm	ASTM D5185m		568		
Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 0 Water % ASTM D6304 >0.05 NEG FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >5000 2443 Particles >6μm ASTM D7647 >1300 254 Particles >14μm ASTM D7647 >160 10 Particles >21μm ASTM D7647 >40 3 Particles >38μm ASTM D7647 >3 0 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 18/15/10 FLUID DEGRADATION method limit/base current history1 history2	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 0 Water % ASTM D6304 >0.05 NEG FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >5000 2443 Particles >6μm ASTM D7647 >1300 254 Particles >14μm ASTM D7647 >160 10 Particles >21μm ASTM D7647 >40 3 Particles >38μm ASTM D7647 >10 0 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 18/15/10 FLUID DEGRADATION method limit/base current history1 history2	Silicon	ppm	ASTM D5185m	>15	0		
Water % ASTM D6304 >0.05 NEG FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >5000 2443 Particles >6μm ASTM D7647 >1300 254 Particles >14μm ASTM D7647 >160 10 Particles >21μm ASTM D7647 >40 3 Particles >38μm ASTM D7647 >10 0 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 18/15/10 FLUID DEGRADATION method limit/base current history1 history2	Sodium	ppm	ASTM D5185m		0		
FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >5000 2443 Particles >6μm ASTM D7647 >1300 254 Particles >14μm ASTM D7647 >160 10 Particles >21μm ASTM D7647 >40 3 Particles >38μm ASTM D7647 >10 0 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 18/15/10 FLUID DEGRADATION method limit/base current history1 history2	Potassium	ppm	ASTM D5185m	>20	0		
Particles >4μm ASTM D7647 >5000 2443 Particles >6μm ASTM D7647 >1300 254 Particles >14μm ASTM D7647 >160 10 Particles >21μm ASTM D7647 >40 3 Particles >38μm ASTM D7647 >10 0 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 18/15/10 FLUID DEGRADATION method limit/base current history1 history2	Water	%	ASTM D6304	>0.05	NEG		
Particles >6μm ASTM D7647 >1300 254 Particles >14μm ASTM D7647 >160 10 Particles >21μm ASTM D7647 >40 3 Particles >38μm ASTM D7647 >10 0 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 18/15/10 FLUID DEGRADATION method limit/base current history1 history2	FLUID CLEANLIN	IESS _	method	limit/base	current	history1	history2
Particles >14μm ASTM D7647 >160 10 Particles >21μm ASTM D7647 >40 3 Particles >38μm ASTM D7647 >10 0 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 18/15/10 FLUID DEGRADATION method limit/base current history1 history2	Particles >4µm		ASTM D7647	>5000	2443		
Particles >14μm ASTM D7647 >160 10 Particles >21μm ASTM D7647 >40 3 Particles >38μm ASTM D7647 >10 0 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 18/15/10 FLUID DEGRADATION method limit/base current history1 history2	Particles >6µm			>1300			
Particles >38μm ASTM D7647 >10 0 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 18/15/10 FLUID DEGRADATION method limit/base current history1 history2	Particles >14µm			>160	10		
Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 18/15/10 FLUID DEGRADATION method limit/base current history1 history2	Particles >21µm		ASTM D7647	>40	3		
Oil Cleanliness ISO 4406 (c) >19/17/14 18/15/10 FLUID DEGRADATION method limit/base current history1 history2	Particles >38μm		ASTM D7647	>10	0		
FLUID DEGRADATION method limit/base current history1 history2	Particles >71μm		ASTM D7647	>3	0		
·	Oil Cleanliness		ISO 4406 (c)	>19/17/14	18/15/10		
Acid Number (AN) mg KOH/g ASTM D8045 0.42	FLUID DEGRADA	TION _	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045		0.42		



OIL ANALYSIS REPORT







Certificate 12367

Laboratory Sample No.

: WC0706612 Lab Number : 05836592 Unique Number : 10455395 Test Package : PLANT

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 03 May 2023

Tested : 05 May 2023 Diagnosed : 05 May 2023 - Don Baldridge

To discuss this sample report, contact Customer Service at 1-800-237-1369.

 st - 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)

MISTER CAR WASH - IOWA REGION

3405 WILLIAMS BLVD SW CEDAR RAPIDS, IA US 52404

Contact: COLE HUNTER chunter@mistercarwash.com

T:

F: Contact/Location: COLE HUNTER - MISDES