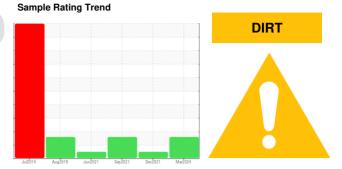


GREASE ANALYSIS



Machine Id

FL 402-142-00 - DIGESTER (S/N 20608583)

Lower Grease

ROYAL PURPLE THERMAX 680 GREASE (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Please submit a sample of the new (unused) oil to establish a baseline.

All component wear rates are normal.

Grease Condition

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

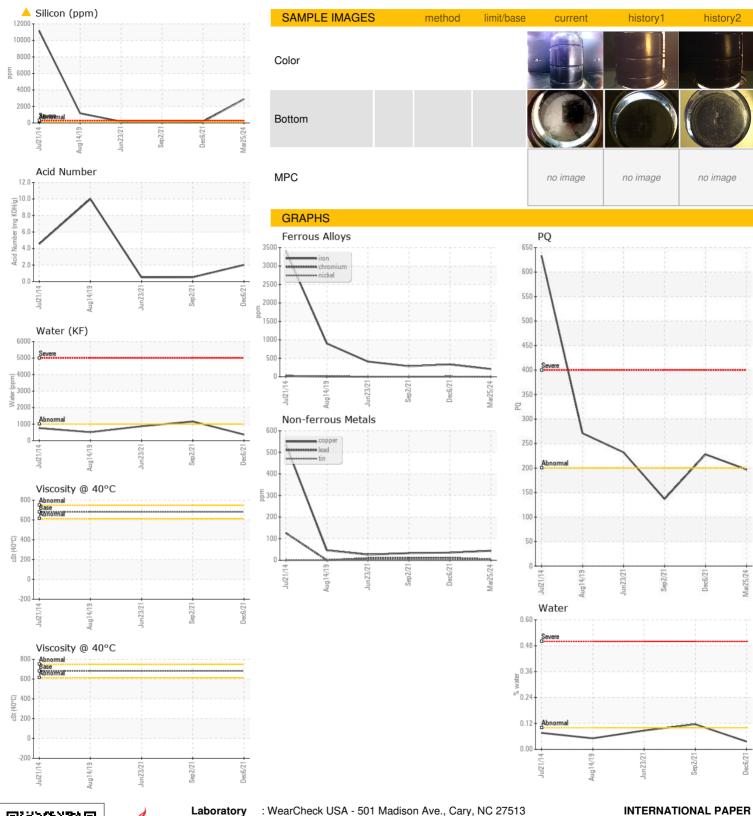
Contaminants

Elemental level of silicon (Si) above normal.

Sample Number Sample Date Machine Age Grease Age Grease Serviced Sample Status WEAR METALS PQ Iron Chromium Nickel Cadmium Titanium	mths mths	Client Info Client Info Client Info Client Info Client Info Method ASTM D8184 ASTM D5185m	limit/base >200	WC0892365 25 Mar 2024 0 0 N/A ABNORMAL current	history1 RP0003322 06 Dec 2021 0 0 N/A NORMAL history1	history2 RP0003295 02 Sep 2021 0 0 N/A ABNORMAL history2
Sample Date Machine Age Grease Age Grease Serviced Sample Status WEAR METALS PQ Iron Chromium Nickel Cadmium	ppm ppm	Client Info Client Info Client Info method ASTM D8184 ASTM D5185m	>200	0 0 N/A ABNORMAL	0 0 N/A NORMAL	0 0 N/A ABNORMAL
Machine Age Grease Age Grease Serviced Sample Status WEAR METALS PQ Iron Chromium Nickel Cadmium	ppm ppm	Client Info Client Info method ASTM D8184 ASTM D5185m	>200	0 N/A ABNORMAL current	0 N/A NORMAL history1	0 0 N/A ABNORMAL
Grease Age Grease Serviced Sample Status WEAR METALS PQ Iron Chromium Nickel Cadmium	ppm ppm	method ASTM D8184 ASTM D5185m	>200	N/A ABNORMAL current	N/A NORMAL history1	N/A ABNORMAL
Grease Serviced Sample Status WEAR METALS PQ Iron Chromium Nickel Cadmium	ppm	method ASTM D8184 ASTM D5185m	>200	ABNORMAL	NORMAL history1	ABNORMAL
WEAR METALS PQ Iron Chromium Nickel Cadmium	ppm	ASTM D8184 ASTM D5185m	>200	current	history1	
PQ Iron Chromium Nickel Cadmium	ppm	ASTM D8184 ASTM D5185m	>200			history2
Iron Chromium Nickel Cadmium	ppm	ASTM D5185m				
Chromium Nickel Cadmium	ppm			197	228	137
Nickel Cadmium	ppm		>250	208	333	285
Cadmium		ASTM D5185m	>10	1	3	2
		ASTM D5185m	>5	4	3	3
Titanium	ppm	ASTM D5185m		<1	<1	<1
Hanium	ppm	ASTM D5185m		5	17	16
Vanadium	ppm	ASTM D5185m		<1	1	<1
Lead	ppm	ASTM D5185m	>25	4	11	10
Copper	ppm	ASTM D5185m	>75	44	35	33
Tin	ppm	ASTM D5185m	>5	2	<1	<1
Silver	ppm	ASTM D5185m	>5	<1	<1	<1
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<1	467	497
Magnesium	ppm	ASTM D5185m		10	12	14
Manganese	ppm	ASTM D5185m		3	3	3
Molybdenum	ppm	ASTM D5185m		3	3	3
Phosphorus	ppm	ASTM D5185m		268	344	341
Zinc	ppm	ASTM D5185m		335	488	654
Antimony	ppm	ASTM D5185m			558	684
THICKENER/SOA	.P	method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185m		4176	5063	5568
	ppm	ASTM D5185m		0	0	0
Barium		ASTM D5185m		40	49	55
Barium Calcium	ppm					
	ppm	ASTM D5185m		10	13	16
Calcium	• •	ASTM D5185m ASTM D5185m		10 	13	16 2
Calcium Sodium	ppm					
Calcium Sodium Lithium	ppm ppm	ASTM D5185m	limit/base		2	2
Calcium Sodium Lithium Sulfur	ppm ppm	ASTM D5185m ASTM D5185m		 16589	2 13512	2 14409
Calcium Sodium Lithium Sulfur CONTAMINANTS	ppm ppm	ASTM D5185m ASTM D5185m method		16589 current	2 13512 history1	2 14409 history2
Calcium Sodium Lithium Sulfur CONTAMINANTS Silicon	ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m		16589 current 2888	2 13512 history1 155	2 14409 history2



GREASE ANALYSIS





Certificate 12367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0892365

Lab Number : 06131262 Unique Number : 10950727

Received : 27 Mar 2024 **Tested**

: 19 Apr 2024

Diagnosed : 19 Apr 2024 - Doug Bogart Test Package : IND 2 (Additional Tests: KF, PQ)

Contact: DOUG WEIR Doug.Weir@ipaper.com;jon.fazenbaker@wearcheck.com

T: (252)633-7350 F: (252)633-7761

1785 Weyerhaeuser Road

VANCEBORO, NC

US 28586

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.

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