

## **PROBLEM SUMMARY**

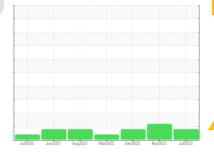
## Sample Rating Trend



# Process Cheese [98316341] NORTH GRINDER MOTOR

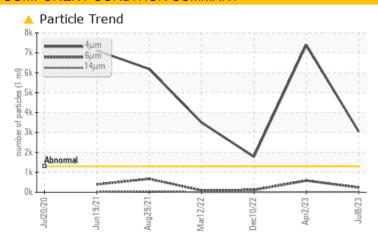
**Bottom Thrust Bearing** 

ISO 100 (--- GAL)





## **COMPONENT CONDITION SUMMARY**



## RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC	TEST RESULT	S			
Sample Status			ABNORMAL	ABNORMAL	ATTENTION
Particles >4µm	ASTM D7647	>1300	<b>△</b> 3043	<del>^</del> 7406	<u>▲</u> 1781
Oil Cleanliness	ISO 4406 (c)	>17/15/13	<b>19/15/11</b>	A 20/16/11	A 18/14/10

Customer Id: KRASPRMO Sample No.: PCA0100123 Lab Number: 05898566 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 ihester@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

## RECOMMENDED ACTIONS

There are no recommended actions for this sample.

## HISTORICAL DIAGNOSIS

## 02 Apr 2023 Diag: Doug Bogart

ISO



No corrective action is recommended at this time. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



10 Dec 2022 Diag: Jonathan Hester

150



No corrective action is recommended at this time. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of silt (particulates < 6 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



12 Mar 2022 Diag: Jonathan Hester

ISO



The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of silt (particulates < 6 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





## **OIL ANALYSIS REPORT**



# Process Cheese [98316341] **NORTH GRINDER MOTOR**

**Bottom Thrust Bearing** 

ISO 100 (--- GAL)

## **DIAGNOSIS**

#### Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

All component wear rates are normal.

## Contamination

There is a high amount of silt (particulates < 6 microns in size) present in the oil.

#### **Fluid Condition**

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

		Jul2020	Jun2021 Aug2021	Mar2022 Dec2022 Apr2023	Jul2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0100123	PCA0088301	PCA0076160
Sample Date		Client Info		08 Jul 2023	02 Apr 2023	10 Dec 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ATTENTION
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>85	2	4	5
Chromium	ppm	ASTM D5185m	>20	<1	0	0
Nickel	ppm	ASTM D5185m	>20	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>40	0	0	0
Lead	ppm	ASTM D5185m	>60	0	0	0
Copper	ppm	ASTM D5185m	>7	<1	<1	<1
Tin	ppm	ASTM D5185m	>40	0	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m		0 <1	0	0
				-		_
Manganese	ppm	ASTM D5185m		<1	0	0
Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m		<1 2	0	0
Manganese Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		<1 2 0	0 1 0	0 1 0
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		<1 2 0 650	0 1 0 552	0 1 0 408
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	<1 2 0 650	0 1 0 552	0 1 0 408
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		<1 2 0 650 0 1946	0 1 0 552 1 1488	0 1 0 408 0 957
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		<1 2 0 650 0 1946	0 1 0 552 1 1488 history1	0 1 0 408 0 957 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m	>20	<1 2 0 650 0 1946 current	0 1 0 552 1 1488 history1	0 1 0 408 0 957 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20	<1 2 0 650 0 1946 current 7	0 1 0 552 1 1488 history1 <1	0 1 0 408 0 957 history2 <1
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >20	<1 2 0 650 0 1946 current 7 1 <1	0 1 0 552 1 1488 history1 <1 <1	0 1 0 408 0 957 history2 <1 0 <1
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANL	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m	>20 >20 limit/base	<1 2 0 650 0 1946 current 7 1 <1 current	0 1 0 552 1 1488 history1 <1 <1 <1	0 1 0 408 0 957 history2 <1 0 <1
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m	>20 >20 limit/base >1300	<1 2 0 650 0 1946 current 7 1 <1 current  3043	0 1 0 552 1 1488 history1 <1 <1 <1 <1 <1	0 1 0 408 0 957 history2 <1 0 <1 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m	>20 >20 limit/base >1300 >320	<1 2 0 650 0 1946  current 7 1 <1 current  3043 239	0 1 0 552 1 1488 history1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	0 1 0 408 0 957 history2 <1 0 <1 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINAN Silicon Sodium Potassium  FLUID CLEANL Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D7647 ASTM D7647	>20 >20 limit/base >1300 >320 >80	<1 2 0 650 0 1946 current 7 1 <1 current   3043 239 15	0 1 0 552 1 1488 history1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	0 1 0 408 0 957 history2 <1 0 <1 history2 ▲ 1781 121 7
Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINAN Silicon Sodium Potassium  FLUID CLEANL Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m  Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	>20 >20 limit/base >1300 >320 >80 >20	<1 2 0 650 0 1946 current 7 1 <1 current   3043 239 15 6	0 1 0 552 1 1488 history1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 2 1 406 ▲ 584 12 2	0 1 0 408 0 957 history2 <1 0 <1 history2  1781 121 7 2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINAN Silicon Sodium Potassium  FLUID CLEANL Particles >4µm Particles >6µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>20 >20 limit/base >1300 >320 >80 >20 >4	<1 2 0 650 0 1946 current 7 1 <1 current   3043 239 15 6 2	0 1 0 552 1 1488 history1 <1 <1 <1 <1 <1 1 12 2 0	0 1 0 408 0 957 history2 <1 0 <1 history2  1781 121 7 2 0
Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINAN Silicon Sodium Potassium  FLUID CLEANL Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7647	>20   simit/base     >1300     >320     >80     >20     >4     >3	<1 2 0 650 0 1946  current 7 1 <1 current   3043 239 15 6 2 0	0 1 0 552 1 1488 history1 <1 <1 <1 <1 history1  ▲ 7406 ▲ 584 12 2 0 0	0 1 0 408 0 957 history2 <1 0 <1 history2  1781 121 7 2 0 0

Acid Number (AN) mg KOH/g ASTM D8045

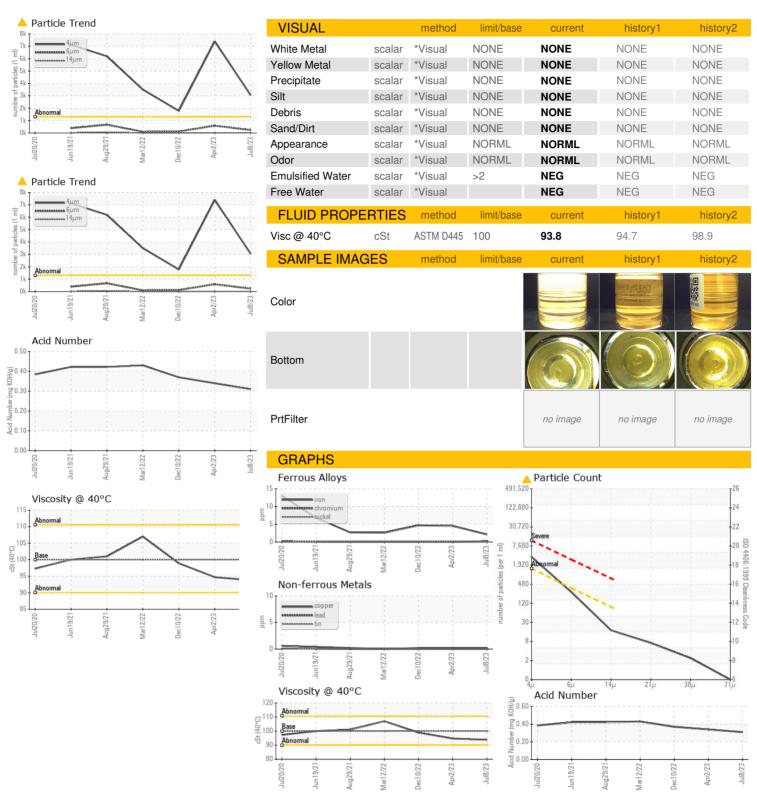
0.34

0.31

0.37



## **OIL ANALYSIS REPORT**







Certificate L2367

Laboratory Sample No. Lab Number **Unique Number** 

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0100123 : 05898566 : 10559922

Received Diagnosed

: 14 Jul 2023 : 17 Jul 2023 Diagnostician : Jonathan Hester

Test Package : IND 2 ( Additional Tests: FilterPatch, PrtCount ) 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)

KraftHeinz - Springfield - Plant 8311 PCA

Contact/Location: Service Manager - KRASPRMO

2035 E BENNETT SPRINGFIELD, MO

US 65804

Contact: Service Manager

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