

PROBLEM SUMMARY

PASTA [98259369] Machine Id B PRESS MAIN MIXER

Component **Gearbox**

GEAR OIL ISO 320 (--- GAL)

Sample Rating Trend CONTAMINANT May do 20 Nord 20 April 23 May 2023 Jun 2023

COMPONENT CONDITION SUMMARY

No relevant graphs to display

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

PROBLEMATIC TEST RESULTS									
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL			
Debris	scalar	*Visual	NONE	MODER	NONE	▲ MODER			
Appearance	scalar	*Visual	NORML	LAYRD	NORML	▲ HAZY			

Customer Id: KRASPRMO Sample No.: PCA0099601 Lab Number: 05902261 Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:

Don Baldridge +1 don.b505@comcast.net

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter			?	We recommend you service the filters on this component if applicable.
Alert			?	We were unable to perform a particle count due to a high concentration of particles present in this sample.

HISTORICAL DIAGNOSIS

13 May 2023 Diag: Don Baldridge

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 < 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.



03 Apr 2023 Diag: Doug Bogart

WAIER



We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. There is a moderate amount of visible silt present in the sample. Excessive free water present. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid.



11 Nov 2020 Diag: Jonathan Hester

WATER



We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component. We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. Free water present. There is a light concentration of water present in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.





OIL ANALYSIS REPORT

Sample Number

Sample Rating Trend

limit/base

Client Info

CONTAMINANT

history2

history1

PCA0096812 PCA0073974

PASTA [98259369] **B PRESS MAIN MIXER**

Component

Gearbox

GEAR OIL ISO 320 (--- GAL)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

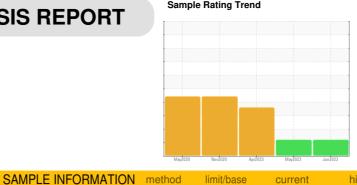
All component wear rates are normal.

Contamination

Appearance is layered. Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in



PCA0099601

Machine Age hrs Client Info 0 0 0 Oil Age hrs Client Info 0 0 0 Oil Changed Client Info Changed Changed Changed Changed Sample Status method limit/base current history1 history2 Iron ppm ASTM D5185m >200 97 <1	Sample Date		Client Info		30 Jun 2023	13 May 2023	03 Apr 2023
Oil Changed Sample Status Client Info Changed ABNORMAL Changed ABNORMAL Changed ABNORMAL AB	Machine Age	hrs	Client Info		0	0	0
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >200 97 <1 33 Chromium ppm ASTM D5185m >15 <1 <1 0 Nickel ppm ASTM D5185m 15 0 0 0 Silver ppm ASTM D5185m 0 <1 0 Silver ppm ASTM D5185m 0 <1 0 Aluminum ppm ASTM D5185m 100 <1 0 Lead ppm ASTM D5185m >200 <1 0 <1 Copper ppm ASTM D5185m >20 <1 0 <1 Tin ppm ASTM D5185m >5 Vanadium ppm ASTM D5185m 5 Vanadium ppm ASTM D5185m 50 0 0 0 Bar	Oil Age	hrs	Client Info		0	0	0
WEAR METALS method limit/base current history2 Iron ppm ASTM D5185m >200 97 <1 33 Chromium ppm ASTM D5185m >15 <1 <1 0 Nickel ppm ASTM D5185m >15 0 0 0 Silver ppm ASTM D5185m 0 <1 0 Silver ppm ASTM D5185m 0 <1 0 Aluminum ppm ASTM D5185m >100 <1 <1 0 Lead ppm ASTM D5185m >100 <1 <1 0 <1 <1 0 <1 <1 0 <1 <1 0 <1 <1 0 <1 <1 0 <1 <1 0 <1 <1 0 <1 <1 0 <1 <1 0 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	Oil Changed		Client Info		Changed	Changed	Changed
Iron	Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Chromium	WEAR METALS	S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>200	97	<1	33
Titanium	Chromium	ppm	ASTM D5185m	>15	<1	<1	0
Silver ppm ASTM D5185m 0 <1	Nickel	ppm	ASTM D5185m	>15	0	0	0
Aluminum ppm ASTM D5185m >25 1 <1	Titanium	ppm	ASTM D5185m		0	<1	0
Lead ppm ASTM D5185m >100 <1	Silver	ppm	ASTM D5185m		0	<1	0
Copper ppm ASTM D5185m >200 <1	Aluminum	ppm	ASTM D5185m	>25	1	<1	0
Tin ppm ASTM D5185m >25 0 <1	Lead	ppm	ASTM D5185m	>100	<1	<1	0
Antimony ppm ASTM D5185m >5 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 Boron ppm ASTM D5185m 50 0 0 0 Barium ppm ASTM D5185m 50 0 0 0 Molybdenum ppm ASTM D5185m 15 0 <1	Copper	ppm	ASTM D5185m	>200	<1	0	<1
Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 50 0 0 0 Barium ppm ASTM D5185m 15 0 0 0 Molybdenum ppm ASTM D5185m 15 0 <1	Tin	ppm	ASTM D5185m	>25	0	<1	0
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 50 0 0 0 Barium ppm ASTM D5185m 15 0 0 0 Molybdenum ppm ASTM D5185m 15 0 <1 0 Magnesee ppm ASTM D5185m 50 0 11 1 Calcium ppm ASTM D5185m 50 0 0 <1 Phosphorus ppm ASTM D5185m 50 0 0 <1 Phosphorus ppm ASTM D5185m 350 479 574 475 Zinc ppm ASTM D5185m 100 0 6 0 Sulfur ppm ASTM D5185m 100 0 6 0 Sulfur ppm ASTM D5185m 20 6 3 3	Antimony	ppm	ASTM D5185m	>5			
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 50 0 0 0 Barium ppm ASTM D5185m 15 0 0 0 Molybdenum ppm ASTM D5185m 15 0 <1 0 Manganese ppm ASTM D5185m 50 0 11 1 Magnesium ppm ASTM D5185m 50 0 0 <1 Calcium ppm ASTM D5185m 50 0 0 <1 Phosphorus ppm ASTM D5185m 50 0 0 <1 Phosphorus ppm ASTM D5185m 100 0 6 0 Sulfur ppm ASTM D5185m 12500 1495 1696 1439 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50	Vanadium	ppm	ASTM D5185m		0	0	0
Boron ppm ASTM D5185m 50 0 0 0 Barium ppm ASTM D5185m 15 0 0 0 Molybdenum ppm ASTM D5185m 15 0 <1	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 15 0 0 0 Molybdenum ppm ASTM D5185m 15 0 <1 0 Manganese ppm ASTM D5185m 50 0 11 1 Magnesium ppm ASTM D5185m 50 0 0 11 1 Calcium ppm ASTM D5185m 50 0 0 <1 1 Phosphorus ppm ASTM D5185m 50 479 574 475 Zinc ppm ASTM D5185m 100 0 6 0 Sulfur ppm ASTM D5185m 12500 1495 1696 1439 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 6 3 3 Sodium ppm ASTM D5185m >20 <1 4 0 Water % ASTM D6304 </th <th>ADDITIVES</th> <th></th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 15 0 <1	Boron	ppm	ASTM D5185m	50	0	0	0
Manganese ppm ASTM D5185m <1	Barium	ppm	ASTM D5185m	15	0	0	0
Magnesium ppm ASTM D5185m 50 0 11 1 Calcium ppm ASTM D5185m 50 0 0 <1	Molybdenum	ppm	ASTM D5185m	15	0	<1	0
Calcium ppm ASTM D5185m 50 0 0 <1	Manganese	ppm	ASTM D5185m		<1	<1	<1
Phosphorus ppm ASTM D5185m 350 479 574 475 Zinc ppm ASTM D5185m 100 0 6 0 Sulfur ppm ASTM D5185m 12500 1495 1696 1439 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 6 3 3 Sodium ppm ASTM D5185m >50 6 3 3 Sodium ppm ASTM D5185m >20 <1 4 0 Potassium ppm ASTM D5185m >20 <1 4 0 Water % ASTM D6304 >0.2 0.174 0.076 ppm Water ppm ASTM D6304 >2000 1740 760 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >320	Magnesium	ppm	ASTM D5185m	50	0	11	1
Zinc ppm ASTM D5185m 100 0 6 0 Sulfur ppm ASTM D5185m 12500 1495 1696 1439 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 6 3 3 Sodium ppm ASTM D5185m >50 6 3 3 Sodium ppm ASTM D5185m >20 <1 4 0 Potassium ppm ASTM D5185m >20 <1 4 0 Water % ASTM D6304 >0.2 0.174 0.076 ppm Water ppm ASTM D6304 >2000 1740 760 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >1300 Δ 4801 Particles >6μm ASTM D7647 >80 <th>Calcium</th> <th>ppm</th> <th>ASTM D5185m</th> <th>50</th> <th>0</th> <th>0</th> <th><1</th>	Calcium	ppm	ASTM D5185m	50	0	0	<1
Sulfur ppm ASTM D5185m 12500 1495 1696 1439 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 6 3 3 Sodium ppm ASTM D5185m >0 0 0 Potassium ppm ASTM D5185m >20 <1 4 0 Water % ASTM D6304 >0.2 0.174 0.076 ppm Water ppm ASTM D6304 >2000 1740 760 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >1300 Δ 4801 Particles >6μm ASTM D7647 >320 Δ 890 Particles >21μm ASTM D7647 >80 63 Particles >21μm ASTM D7647 >20	Phosphorus	ppm	ASTM D5185m	350	479	574	475
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 6 3 3 Sodium ppm ASTM D5185m >0 0 0 0 Potassium ppm ASTM D5185m >20 <1	Zinc	ppm	ASTM D5185m	100	0	6	0
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Sulfur	ppm	ASTM D5185m	12500	1495	1696	1439
Sodium ppm ASTM D5185m 0 0 0 Potassium ppm ASTM D5185m >20 <1 4 0 Water % ASTM D6304 >0.2 0.174 0.076 ppm Water ppm ASTM D6304 >2000 1740 760 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >1300 Δ 4801 Particles >6μm ASTM D7647 >320 Δ 890 Particles >14μm ASTM D7647 >80 63 Particles >21μm ASTM D7647 >20 16	CONTAMINAN	TS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 <1	Silicon	ppm	ASTM D5185m	>50	6	3	3
Water % ASTM D6304 >0.2 0.174 0.076 ppm Water ppm ASTM D6304 >2000 1740 760 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >1300 Δ 4801 Particles >6μm ASTM D7647 >320 Δ 890 Particles >14μm ASTM D7647 >80 63 Particles >21μm ASTM D7647 >20 16	Sodium	ppm	ASTM D5185m		0	0	0
ppm Water ppm ASTM D6304 >2000 1740 760 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >1300 Δ 4801 Particles >6μm ASTM D7647 >320 Δ 890 Particles >14μm ASTM D7647 >80 63 Particles >21μm ASTM D7647 >20 16	Potassium	ppm	ASTM D5185m	>20	<1	4	0
FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >1300 Δ 4801 Particles >6μm ASTM D7647 >320 Δ 890 Particles >14μm ASTM D7647 >80 63 Particles >21μm ASTM D7647 >20 16	Water	%	ASTM D6304	>0.2	0.174		0.076
Particles >4μm ASTM D7647 >1300 Δ 4801 Particles >6μm ASTM D7647 >320 Δ 890 Particles >14μm ASTM D7647 >80 63 Particles >21μm ASTM D7647 >20 16	ppm Water	ppm	ASTM D6304	>2000	1740		760
Particles >6μm ASTM D7647 >320 890 Particles >14μm ASTM D7647 >80 63 Particles >21μm ASTM D7647 >20 16	FLUID CLEANL	INESS	method	limit/base	current	history1	history2
Particles >14μm ASTM D7647 >80 63 Particles >21μm ASTM D7647 >20 16	Particles >4µm		ASTM D7647	>1300		4801	
Particles >21μm ASTM D7647 >20 16	Particles >6µm		ASTM D7647	>320		A 890	
	Particles >14μm		ASTM D7647	>80		63	
Particles >38μm ASTM D7647 >4 1	Particles >21µm		ASTM D7647	>20		16	
	Particles >38μm		ASTM D7647	>4		1	
Particles >71 μ m ASTM D7647 >3 0	Particles >71μm		ASTM D7647	>3		0	
Oil Cleanliness ISO 4406 (c) >17/15/13 ▲ 19/17/13	Oil Cleanliness		ISO 4406 (c)	>17/15/13		▲ 19/17/13	
FLUID DEGRADATION method limit/base current history1 history2	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2

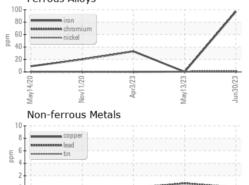
Acid Number (AN)

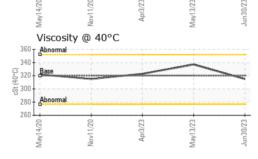
mg KOH/g ASTM D8045 0.85

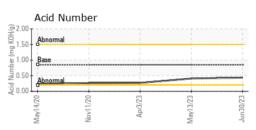


OIL ANALYSIS REPORT













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

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0099601 : 05902261

Received : 10563617

Diagnosed

: 21 Jul 2023 Diagnostician : Don Baldridge

: 19 Jul 2023

Test Package : IND 2 (Additional Tests: KF, 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

2035 E BENNETT SPRINGFIELD, MO

US 65804

history2

history

history2

Contact: Service Manager

T: F: