

# **OIL ANALYSIS REPORT**

## **VIS DEBRIS**



history1

# **DINNERS** [98724910] **MAIN DRIVE PACKER**

Component

Gearbox

GEAR OIL ISO 220 (--- 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

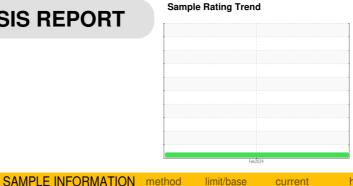
All component wear rates are normal.

#### Contamination

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 suitable for further service.

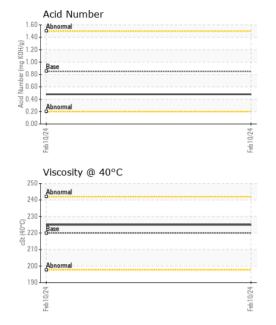


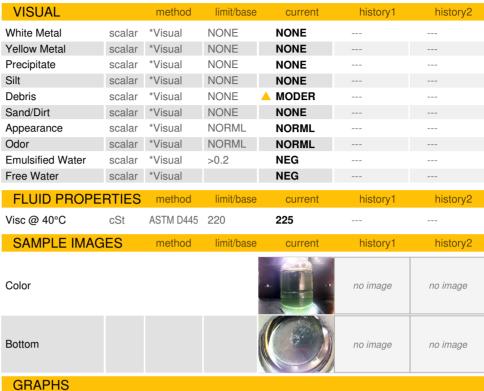
current

Water         WC Method         >0.2         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >200         48             Chromium         ppm         ASTM D5185m         >15         <1             Nickel         ppm         ASTM D5185m         >15         0             Silver         ppm         ASTM D5185m         0              Aluminum         ppm         ASTM D5185m         0              Aluminum         ppm         ASTM D5185m         >25         0             Aluminum         ppm         ASTM D5185m         >200         4             Lead         ppm         ASTM D5185m         >200         4             Copper         ppm         ASTM D5185m         >200         4             Vanadium         ppm         ASTM D5185m         0	SAMPLE INFOR	VIATION	memou	IIIIIIIIIIIIIII	Current	HISTORY	HISTORYZ
Machine Age         hrs         Client Info         0             Oil Age         hrs         Client Info         0             Oil Changed         Client Info         Changed             Sample Status         BABNORMAL             CONTAMINATION         method         limit/base         current         history1         history2           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >200         48             Chromium         ppm         ASTM D5185m         >15         <1	Sample Number		Client Info		PCA0117514		
Oil Age         hrs         Client Info         Changed	Sample Date		Client Info		10 Feb 2024		
Oil Changed Sample Status         Client Info         Changed ABNORMAL	Machine Age	hrs	Client Info		0		
CONTAMINATION   method   limit/base   current   history1   history2	Oil Age	hrs	Client Info		0		
CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.2         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >200         48             Chromium         ppm         ASTM D5185m         >15         <1	Oil Changed		Client Info		Changed		
Water         WC Method         >0.2         NEG	Sample Status				ABNORMAL		
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >200         48             Chromium         ppm         ASTM D5185m         >15         <1             Nickel         ppm         ASTM D5185m         0              Silver         ppm         ASTM D5185m         0              Aluminum         ppm         ASTM D5185m         >25         0             Aluminum         ppm         ASTM D5185m         >200         4             Lead         ppm         ASTM D5185m         >200         4             Copper         ppm         ASTM D5185m         >20         4             Vanadium         ppm         ASTM D5185m         0              Vanadium         ppm         ASTM D5185m         0              Cadmium         ppm         ASTM D5185m         0	CONTAMINAT	ION	method	limit/base	current	history1	history2
Iron	Water		WC Method	>0.2	NEG		
Chromium         ppm         ASTM D5185m         >15         <1	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel         ppm         ASTM D5185m         >15         0             Titanium         ppm         ASTM D5185m         0             Silver         ppm         ASTM D5185m         0             Aluminum         ppm         ASTM D5185m         >25         0             Lead         ppm         ASTM D5185m         >200         4             Copper         ppm         ASTM D5185m         >200         4             Tin         ppm         ASTM D5185m         0              Vanadium         ppm         ASTM D5185m         0              Cadmium         ppm         ASTM D5185m         0              ADDITIVES         method         limit/base         current         history1         history1           Boron         ppm         ASTM D5185m         50         4             Barium         ppm         ASTM D5185m         15         0	Iron	ppm	ASTM D5185m	>200	48		
Titanium         ppm         ASTM D5185m         0             Silver         ppm         ASTM D5185m         25         0             Aluminum         ppm         ASTM D5185m         >25         0             Lead         ppm         ASTM D5185m         >200         4             Copper         ppm         ASTM D5185m         >200         4             Tin         ppm         ASTM D5185m         0              Vanadium         ppm         ASTM D5185m         50         4             ADDITIVES         method         limit/base         current         history1         history1           Boron         ppm         ASTM D5185m         50         4	Chromium	ppm	ASTM D5185m	>15	<1		
Silver         ppm         ASTM D5185m         0             Aluminum         ppm         ASTM D5185m         >25         0             Lead         ppm         ASTM D5185m         >20         0             Copper         ppm         ASTM D5185m         >200         4             Tin         ppm         ASTM D5185m         >25         <1             Vanadium         ppm         ASTM D5185m         0              Vanadium         ppm         ASTM D5185m         0              Cadmium         ppm         ASTM D5185m         0              ADDITIVES         method         limit/base         current         history1         history1           Boron         ppm         ASTM D5185m         50         4             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         15         0 </td <td>Nickel</td> <td>ppm</td> <td>ASTM D5185m</td> <td>&gt;15</td> <td>0</td> <td></td> <td></td>	Nickel	ppm	ASTM D5185m	>15	0		
Aluminum         ppm         ASTM D5185m         >25         0             Lead         ppm         ASTM D5185m         >100         0             Copper         ppm         ASTM D5185m         >200         4             Tin         ppm         ASTM D5185m         >25         <1	Titanium	ppm	ASTM D5185m		0		
Lead         ppm         ASTM D5185m         >100         0             Copper         ppm         ASTM D5185m         >200         4             Tin         ppm         ASTM D5185m         0             Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             Boron         ppm         ASTM D5185m         50         4             Barium         ppm         ASTM D5185m         15         0             Molybdenum         ppm         ASTM D5185m         15         0             Magnesium         ppm         ASTM D5185m         50         0             Magnesium         ppm         ASTM D5185m         50         0             Phosphorus         ppm         ASTM D5185m         350         356             Sulfur         ppm         ASTM D5185m         12500         1227	Silver	ppm	ASTM D5185m		0		
Copper         ppm         ASTM D5185m         >200         4             Tin         ppm         ASTM D5185m         >25         <1	Aluminum	ppm	ASTM D5185m	>25	0		
Tin         ppm         ASTM D5185m         >25         <1             Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         50         4             Barium         ppm         ASTM D5185m         15         0             Molybdenum         ppm         ASTM D5185m         15         0             Manganese         ppm         ASTM D5185m         50         0             Magnesium         ppm         ASTM D5185m         50         0             Calcium         ppm         ASTM D5185m         50         0             Phosphorus         ppm         ASTM D5185m         100         27             Zinc         ppm         ASTM D5185m         12500         1227	Lead	ppm	ASTM D5185m	>100	0		
Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         50         4             Barium         ppm         ASTM D5185m         15         0             Molybdenum         ppm         ASTM D5185m         15         0             Manganese         ppm         ASTM D5185m         50         0             Magnesium         ppm         ASTM D5185m         50         0             Calcium         ppm         ASTM D5185m         50         0             Phosphorus         ppm         ASTM D5185m         100         27             Zinc         ppm         ASTM D5185m         12500         1227             Sulfur         ppm         ASTM D5185m         >50         6	Copper	ppm	ASTM D5185m	>200	4		
Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         50         4             Barium         ppm         ASTM D5185m         15         0             Molybdenum         ppm         ASTM D5185m         15         0             Manganese         ppm         ASTM D5185m         50         0             Magnesium         ppm         ASTM D5185m         50         0             Calcium         ppm         ASTM D5185m         50         0             Phosphorus         ppm         ASTM D5185m         350         356             Zinc         ppm         ASTM D5185m         12500         1227             Sulfur         ppm         ASTM D5185m         >50         6             CONTAMINANTS         method         limit/base         current <t< td=""><td>Tin</td><td>ppm</td><td>ASTM D5185m</td><td>&gt;25</td><td>&lt;1</td><td></td><td></td></t<>	Tin	ppm	ASTM D5185m	>25	<1		
ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         50         4             Barium         ppm         ASTM D5185m         15         0             Molybdenum         ppm         ASTM D5185m         15         0             Manganese         ppm         ASTM D5185m         50         0             Magnesium         ppm         ASTM D5185m         50         0             Calcium         ppm         ASTM D5185m         50         0             Phosphorus         ppm         ASTM D5185m         350         356             Zinc         ppm         ASTM D5185m         100         27             Sulfur         ppm         ASTM D5185m         >50         6             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >50	Vanadium	ppm	ASTM D5185m		0		
Boron         ppm         ASTM D5185m         50         4             Barium         ppm         ASTM D5185m         15         0             Molybdenum         ppm         ASTM D5185m         15         0             Manganese         ppm         ASTM D5185m         50         0             Magnesium         ppm         ASTM D5185m         50         0             Calcium         ppm         ASTM D5185m         50         0             Phosphorus         ppm         ASTM D5185m         350         356             Zinc         ppm         ASTM D5185m         100         27             Sulfur         ppm         ASTM D5185m         12500         1227             CONTAMINANTS         method         limit/base         current         history1         history2           Sodium         ppm         ASTM D5185m         >50         6             Potassium         ppm         ASTM D5185m         >20<	Cadmium	ppm	ASTM D5185m		0		
Barium         ppm         ASTM D5185m         15         0             Molybdenum         ppm         ASTM D5185m         15         0             Manganese         ppm         ASTM D5185m         50         0             Magnesium         ppm         ASTM D5185m         50         0             Calcium         ppm         ASTM D5185m         50         0             Phosphorus         ppm         ASTM D5185m         350         356             Zinc         ppm         ASTM D5185m         100         27             Sulfur         ppm         ASTM D5185m         12500         1227             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >50         6             Sodium         ppm         ASTM D5185m         >20         0             FLUID DEGRADATION         method         limit/base	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         15         0             Manganese         ppm         ASTM D5185m         50         0             Magnesium         ppm         ASTM D5185m         50         0             Calcium         ppm         ASTM D5185m         50         0             Phosphorus         ppm         ASTM D5185m         350         356             Zinc         ppm         ASTM D5185m         100         27             Sulfur         ppm         ASTM D5185m         12500         1227             CONTAMINANTS         method         limit/base         current         history1         history1           Silicon         ppm         ASTM D5185m         >50         6             Sodium         ppm         ASTM D5185m         >20         0             FLUID DEGRADATION         method         limit/base         current         history1         history2	Boron	ppm	ASTM D5185m	50	4		
Manganese         ppm         ASTM D5185m         <1             Magnesium         ppm         ASTM D5185m         50         0             Calcium         ppm         ASTM D5185m         50         0             Phosphorus         ppm         ASTM D5185m         350         356             Zinc         ppm         ASTM D5185m         100         27             Sulfur         ppm         ASTM D5185m         12500         1227             CONTAMINANTS         method         limit/base         current         history1         history3           Silicon         ppm         ASTM D5185m         >50         6             Sodium         ppm         ASTM D5185m         >20         0             FLUID DEGRADATION         method         limit/base         current         history1         history3	Barium	ppm	ASTM D5185m	15	0		
Magnesium         ppm         ASTM D5185m         50         0             Calcium         ppm         ASTM D5185m         50         0             Phosphorus         ppm         ASTM D5185m         350         356             Zinc         ppm         ASTM D5185m         100         27             Sulfur         ppm         ASTM D5185m         12500         1227             CONTAMINANTS         method         limit/base         current         history1         history3           Silicon         ppm         ASTM D5185m         >50         6             Sodium         ppm         ASTM D5185m         >20         0             FLUID DEGRADATION         method         limit/base         current         history1         history3	Molybdenum	ppm	ASTM D5185m	15	0		
Calcium         ppm         ASTM D5185m         50         0             Phosphorus         ppm         ASTM D5185m         350         356             Zinc         ppm         ASTM D5185m         100         27             Sulfur         ppm         ASTM D5185m         12500         1227             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >50         6             Sodium         ppm         ASTM D5185m         >0             Potassium         ppm         ASTM D5185m         >20         0             FLUID DEGRADATION         method         limit/base         current         history1         history2	Manganese	ppm	ASTM D5185m		<1		
Phosphorus         ppm         ASTM D5185m         350         356             Zinc         ppm         ASTM D5185m         100         27             Sulfur         ppm         ASTM D5185m         12500         1227             CONTAMINANTS         method         limit/base         current         history1         history1           Silicon         ppm         ASTM D5185m         >50         6             Sodium         ppm         ASTM D5185m         0             Potassium         ppm         ASTM D5185m         >20         0             FLUID DEGRADATION         method         limit/base         current         history1         history2	Magnesium	ppm	ASTM D5185m	50	0		
Zinc         ppm         ASTM D5185m         100         27             Sulfur         ppm         ASTM D5185m         12500         1227             CONTAMINANTS         method         limit/base         current         history1         history1           Silicon         ppm         ASTM D5185m         >50         6             Sodium         ppm         ASTM D5185m         0             Potassium         ppm         ASTM D5185m         >20         0             FLUID DEGRADATION         method         limit/base         current         history1         history3	Calcium	ppm	ASTM D5185m	50	0		
Sulfur         ppm         ASTM D5185m         12500         1227             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >50         6             Sodium         ppm         ASTM D5185m         0             Potassium         ppm         ASTM D5185m         >20         0             FLUID DEGRADATION         method         limit/base         current         history1         history2	Phosphorus	ppm	ASTM D5185m	350	356		
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >50         6             Sodium         ppm         ASTM D5185m         0             Potassium         ppm         ASTM D5185m         >20         0             FLUID DEGRADATION         method         limit/base         current         history1         history2	Zinc	ppm	ASTM D5185m	100	27		
Silicon         ppm         ASTM D5185m         >50         6             Sodium         ppm         ASTM D5185m         0              Potassium         ppm         ASTM D5185m         >20         0             FLUID DEGRADATION         method         limit/base         current         history1         history1	Sulfur	ppm	ASTM D5185m	12500	1227		
Sodium         ppm         ASTM D5185m         0             Potassium         ppm         ASTM D5185m         >20         0             FLUID DEGRADATION         method         limit/base         current         history1         history2	CONTAMINAN	TS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 <b>0</b> FLUID DEGRADATION method limit/base current history1 history1	Silicon	ppm	ASTM D5185m	>50	6		
FLUID DEGRADATION method limit/base current history1 history1	Sodium	ppm	ASTM D5185m		0		
·	Potassium	ppm	ASTM D5185m	>20	0		
Acid Number (AN) mg KOH/g ASTM D8045 0.85 0.48	FLUID DEGRA	DATION	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045	0.85	0.48		



# **OIL ANALYSIS REPORT**



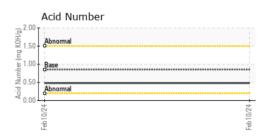




Ferrous Alloys

Non-ferrous Metals

Viscosity @ 40°C 240 Ç 230 € 220 . इं <sub>210</sub> 200 190 Feb10/24







Laboratory Sample No. Lab Number : 06090130 **Unique Number** : 10882983

: PCA0117514

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

Received : 15 Feb 2024 : 19 Feb 2024 **Tested** Diagnosed

: 19 Feb 2024 - Jonathan Hester

KraftHeinz - Springfield - Plant 8311 PCA 2035 E BENNETT

SPRINGFIELD, MO US 65804

Contact: Service Manager

Test Package: IND 2 (Additional Tests: 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)

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F: