

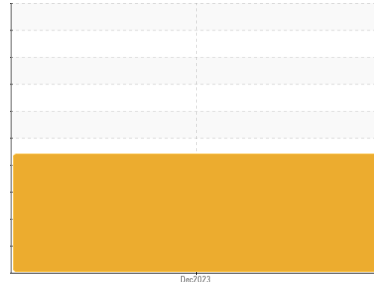


PROBLEM SUMMARY

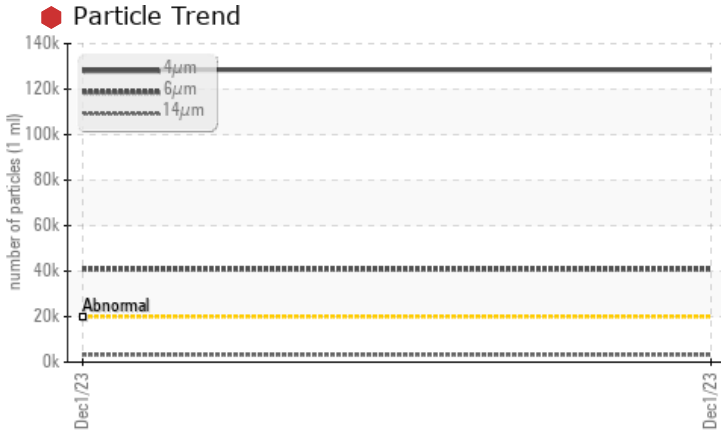
Sample Rating Trend

ISO

Area
BUILDING 51 - CEREAL PRODUCTS
 Machine Id
ROTARY FEEDER PRODUCT GEAR BOX (S/N 51RFPR-GB)
 Component
Gearbox
 Fluid
LUBRICATION ENG DUOLEC 1605 GEAR OIL 220 (--- LTR)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	---	---
Particles >4µm	ASTM D7647	>20000	▲ 128473	---	---
Particles >6µm	ASTM D7647	>5000	● 40908	---	---
Particles >14µm	ASTM D7647	>640	▲ 3188	---	---
Particles >21µm	ASTM D7647	>160	▲ 894	---	---
Particles >38µm	ASTM D7647	>40	▲ 91	---	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	● 24/23/19	---	---

Customer Id: HIRWIN
 Sample No.: WC0865419
 Lab Number: 02601340
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
 Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Dirt Access	---	---	?	We advise that you check all areas where contaminants can enter the system.
Filter Fluid	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend

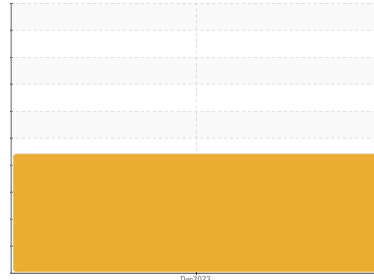
ISO



Area
BUILDING 51 - CEREAL PRODUCTS
Machine Id
ROTARY FEEDER PRODUCT GEAR BOX (S/N 51RFPR-GB)

Component
Gearbox

Fluid
LUBRICATION ENG DUOLEC 1605 GEAR OIL 220 (--- LTR)



DIAGNOSIS

Recommendation

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates (2 to 100 microns in size) present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0865419	---	---
Sample Date	Client Info			01 Dec 2023	---	---
Machine Age	hrs	Client Info		0	---	---
Oil Age	hrs	Client Info		0	---	---
Oil Changed	Client Info			N/A	---	---
Sample Status				SEVERE	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.2	NEG	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>200	77	---	---
Chromium	ppm	ASTM D5185(m)	>15	<1	---	---
Nickel	ppm	ASTM D5185(m)	>15	<1	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)		<1	---	---
Aluminum	ppm	ASTM D5185(m)	>25	<1	---	---
Lead	ppm	ASTM D5185(m)	>100	0	---	---
Copper	ppm	ASTM D5185(m)	>200	<1	---	---
Tin	ppm	ASTM D5185(m)	>25	0	---	---
Antimony	ppm	ASTM D5185(m)	>5	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
Beryllium	ppm	ASTM D5185(m)		0	---	---
Cadmium	ppm	ASTM D5185(m)		0	---	---

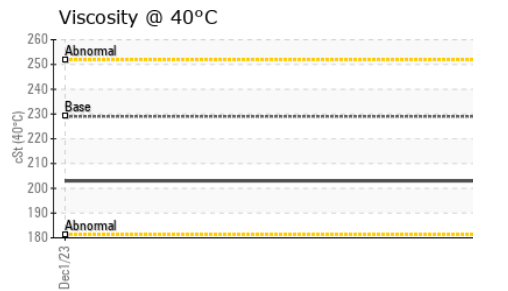
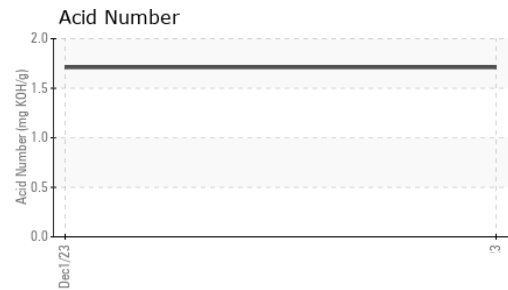
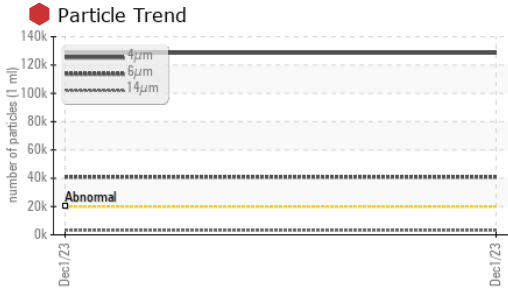
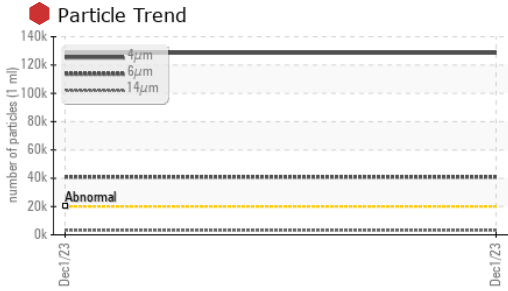
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		37	---	---
Barium	ppm	ASTM D5185(m)		2	---	---
Molybdenum	ppm	ASTM D5185(m)		0	---	---
Manganese	ppm	ASTM D5185(m)		<1	---	---
Magnesium	ppm	ASTM D5185(m)		<1	---	---
Calcium	ppm	ASTM D5185(m)		8	---	---
Phosphorus	ppm	ASTM D5185(m)		688	---	---
Zinc	ppm	ASTM D5185(m)		20	---	---
Sulfur	ppm	ASTM D5185(m)		8532	---	---
Lithium	ppm	ASTM D5185(m)		<1	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	<1	---	---
Sodium	ppm	ASTM D5185(m)		2	---	---
Potassium	ppm	ASTM D5185(m)	>20	1	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	▲ 128473	---	---
Particles >6µm		ASTM D7647	>5000	● 40908	---	---
Particles >14µm		ASTM D7647	>640	▲ 3188	---	---
Particles >21µm		ASTM D7647	>160	▲ 894	---	---
Particles >38µm		ASTM D7647	>40	▲ 91	---	---
Particles >71µm		ASTM D7647	>10	7	---	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	● 24/23/19	---	---



OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		1.71	---	---

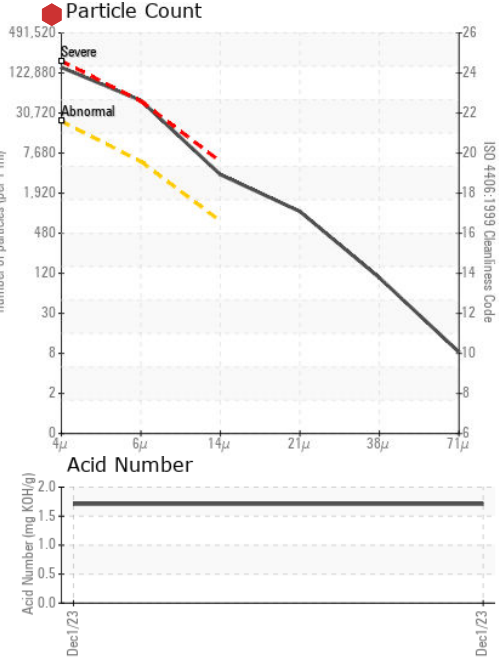
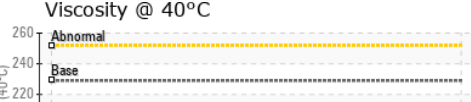
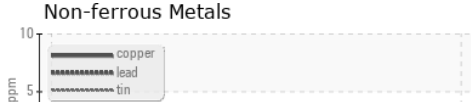
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---
Free Water	scalar	Visual*		NEG	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	229.0	203	---	---

SAMPLE IMAGES

method	limit/base	current	history1	history2
Color			<i>no image</i>	<i>no image</i>
Bottom			<i>no image</i>	<i>no image</i>

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0865419 **Received** : 06 Dec 2023
Lab Number : **02601340** **Diagnosed** : 07 Dec 2023
Unique Number : 5694425 **Diagnostician** : Wes Davis
Test Package : IND 2 (Additional Tests: TAN Man)

HIRAM WALKER & SONS LTD.
 2072 RIVERSIDE DRIVE EAST, BOX 2518
 WINDSOR, ON
 CA N8Y 4S5
 Contact: Matt Morand
 matt.morand@pernod-ricard.com
 T: (519)561-5359
 F: (519)971-5719

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.