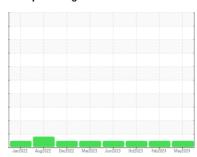


OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id **FACER 1**

Component Hydraulic System

{not provided} (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Fluid Condition

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

		Janž022 A	ug2022 Dec2022 Mar20	23 Jun 2023 Oct2023 Feb 2024	May2024	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PTK0005601	PTK0005365	PTK0005026
Sample Date		Client Info		30 May 2024	01 Feb 2024	25 Oct 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Filtered	Filtered	Filtered
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	1	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	0	0	0
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	2	<1
Lead	ppm	ASTM D5185m	>10	<1	<1	0
Copper	ppm	ASTM D5185m	>75	3	4	6
Tin	ppm	ASTM D5185m	>10	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	1	0
Barium	ppm	ASTM D5185m		0	0	<1
Molybdenum	ppm	ASTM D5185m		141	137	153
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m		2	1	2
Calcium	ppm	ASTM D5185m		41	47	53
Phosphorus	ppm	ASTM D5185m		404	460	473
Zinc	ppm	ASTM D5185m		429	423	471
Sulfur	ppm	ASTM D5185m		1633	1614	2057
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	3	2	3
Sodium	ppm	ASTM D5185m		0	<1	0
Potassium	ppm	ASTM D5185m	>20	1	2	<1
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	678	1004	1185
Particles >6µm		ASTM D7647	>1300	177	333	243
Particles >14μm		ASTM D7647	>160	13	37	16
Particles >21µm		ASTM D7647	>40	2	12	3
Particles >38μm		ASTM D7647	>10	0	1	0
Particles >71μm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	17/15/11	17/16/12	17/15/11
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Asid Number (ANI)	I/OII/-	ACTM DODAE		0.60	0.74	0.05

Acid Number (AN)

0.69

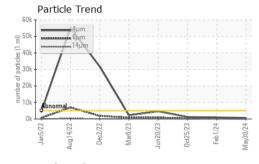
0.65

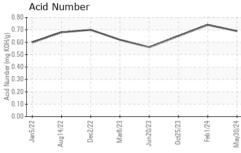
mg KOH/g ASTM D8045

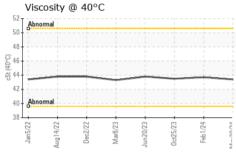
Submitted By: MIKE LEEN

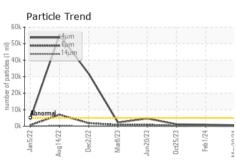


OIL ANALYSIS REPORT









VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TIES	method	limit/base	current	history1	history2

risc @ 40°C	CSI	ASTM D445		43.4	43.7	43.5
SAMPLE IMAGE	S	method	limit/base	current	historv1	historv2

Color





GRAPHS	
Ferrous Alloys	Particle Count
iron iron iron iron iron iron iron iron	122,880
2	30,720
727 727 727 727 727 727 727 727 727 727	7,680 Abnormal -2
Jan5/22 Aug14/22 Dec2/22 Jun20/23	Feb1/24 Feb1/24 1,020 100 100 100 100 100 100 1
Non-ferrous Metals	7,680 Abnormal 20 110 110 110 110 110 110 110 110 110 1
copper	120 - 11
E 5	30-
0	8-
Jan5/22 - Aug14/22 - Dec2/22 - Mar6/23 - Jun20/23 -	Feb 1/24
Viscosity @ 40°C	$\stackrel{\geq}{=} 0$ $\stackrel{\downarrow}{\downarrow}$ $\stackrel{\downarrow}{}$
Abnormal Abnormal	08.0
So Abnormal	B 0.40
40 Abnormal	0.00 V Acid Number (3.0
Jan5/22 + Mg14/22 + Dec2/22 + Mar6/23 + Oct25/23 + Oct25/23 +	Aci Aci Aci Beb 1/24 + Aci Beb 1/24 - Aci Bec 2/22 - Bec 2/22 - Bec 2/23 - Bec 2/23 - Beb 1/24 + Be
Jan5/22 Aug 14/22 Dec2/22 Jun20/23	Feb1/24 May30/24 Aug14/22 Dec2/22 Jun20/23 Occ25/23





Certificate 12367

Laboratory

Sample No. : PTK0005601 Lab Number : 06207740 Unique Number : 11075201 Test Package : MOB 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 12 Jun 2024 **Tested** : 13 Jun 2024

: 13 Jun 2024 - Wes Davis Diagnosed

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.

Contact: BRENT WENTWORTH brentwentworth@libertycarton.com T: (763)540-9589

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

F: Submitted By: MIKE LEEN

LIBERTY CARTON

MINNEAPOLIS, MN

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