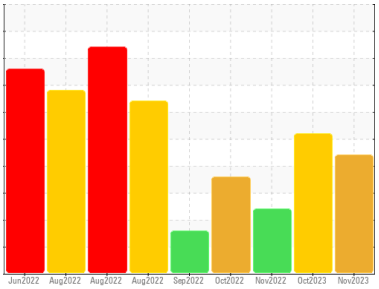
PROBLEM SUMMARY

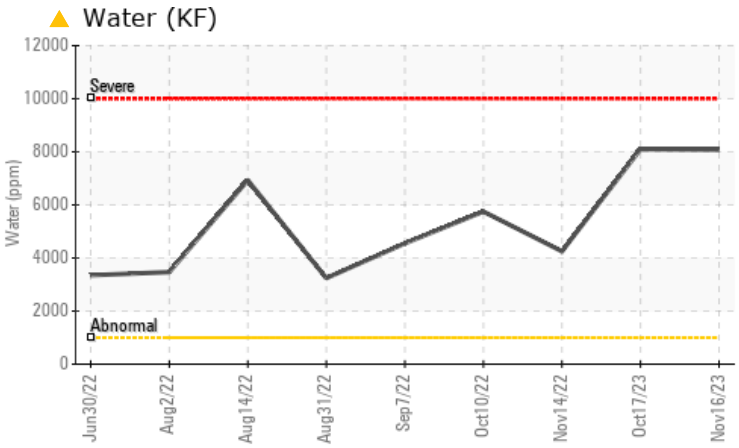
Sample Rating Trend

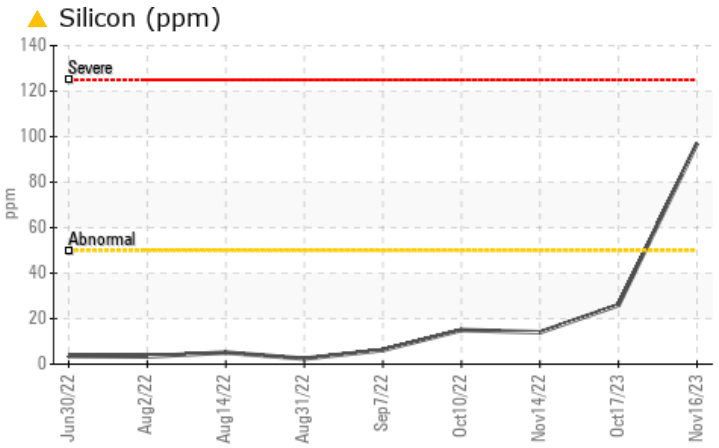


WATER

Area
Thermoforming
Machine Id
Line 12 B Extruder (S/N 46270220-10300-1)
Component
Bevel Helical Gearbox
Fluid
MOBIL SHC 632 (21 GAL)

COMPONENT CONDITION SUMMARY





RECOMMENDATION

We advise that you check for the source of water entry. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL
Silicon	ppm	ASTM D5185m	>50	▲ **97**	26	14
Water	%	ASTM D6304	>0.1	▲ **0.808**	▲ 0.810	▲ 0.425
ppm Water	ppm	ASTM D6304	>1000	▲ **8080**	▲ 8100	▲ 4250
Appearance	scalar	*Visual	NORML	▲ **HAZY**	▲ HAZY	▲ HAZY
Viscosity Index (VI)	Scale	ASTM D2270	169	▲ **137**	161	142

Customer Id: DARDALTX
Sample No.: TO50001927
Lab Number: 06014032
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
jhester@wearcheckusa.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Check Water Access	---	---	?	We advise that you check for the source of water entry.

HISTORICAL DIAGNOSIS

17 Oct 2023 Diag: Jonathan Hester

WATER

We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. Resample at the next service interval to monitor.All component wear rates are normal. Appearance is hazy. There is a high amount of particulates present in the oil. There is a high concentration of water present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

14 Nov 2022 Diag: Jonathan Hester

WATER

We advise that you check for the source of water entry. Resample at the next service interval to monitor.All component wear rates are normal. Appearance is hazy. There is a moderate concentration of water present in the oil. The condition of the oil is acceptable for the time in service.

view report

10 Oct 2022 Diag: Jonathan Hester

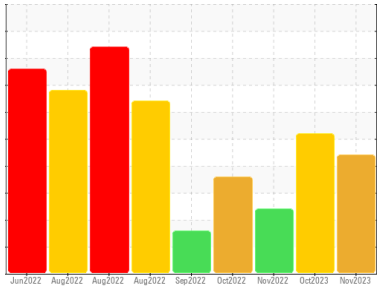
WATER

We suspect abnormal contamination may be due to sampling method. We advise that you check for the source of water entry. We recommend an early resample to monitor this condition.High concentration of visible metal present. All component wear rates are normal. Appearance is hazy. There is a moderate concentration of water present in the oil. The condition of the oil is acceptable for the time in service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Area
Thermoforming
Machine Id
Line 12 B Extruder (S/N 46270220-10300-1)
Component
Bevel Helical Gearbox
Fluid
MOBIL SHC 632 (21 GAL)

DIAGNOSIS

Recommendation
We advise that you check for the source of water entry. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
Appearance is hazy. There is a high concentration of water present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material.

Fluid Condition
The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**TO50001927**	TO50001607	TO50001209
Sample Date		Client Info		**16 Nov 2023**	17 Oct 2023	14 Nov 2022
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**4**	34	126
Iron	ppm	ASTM D5185m	>150	**6**	6	104
Chromium	ppm	ASTM D5185m	>10	**<1**	0	<1
Nickel	ppm	ASTM D5185m	>10	**<1**	0	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m		**0**	0	2
Aluminum	ppm	ASTM D5185m	>25	**2**	<1	<1
Lead	ppm	ASTM D5185m	>100	**0**	<1	<1
Copper	ppm	ASTM D5185m	>50	**<1**	1	<1
Tin	ppm	ASTM D5185m	>10	**0**	<1	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**<1**	0	<1
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**<1**	0	0
Manganese	ppm	ASTM D5185m		**0**	<1	<1
Magnesium	ppm	ASTM D5185m		**<1**	0	<1
Calcium	ppm	ASTM D5185m		**2**	5	1
Phosphorus	ppm	ASTM D5185m		**446**	481	413
Zinc	ppm	ASTM D5185m		**0**	0	<1
Sulfur	ppm	ASTM D5185m		**151**	32	124

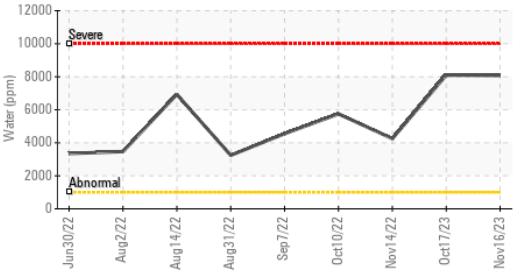
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	▲ **97**	26	14
Sodium	ppm	ASTM D5185m		**1**	2	0
Potassium	ppm	ASTM D5185m	>20	**1**	<1	2
Water	%	ASTM D6304	>0.1	▲ **0.808**	▲ 0.810	▲ 0.425
ppm Water	ppm	ASTM D6304	>1000	▲ **8080**	▲ 8100	▲ 4250

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>1300	**---**	▲ 4533	---
Particles >6µm		ASTM D7647	>320	**---**	▲ 2469	---
Particles >14µm		ASTM D7647	>80	**---**	▲ 420	---
Particles >21µm		ASTM D7647	>20	**---**	▲ 142	---
Particles >38µm		ASTM D7647	>4	**---**	▲ 22	---
Particles >71µm		ASTM D7647	>3	**---**	▲ 2	---
Oil Cleanliness		ISO 4406 (c)	>17/15/13	**---**	▲ 19/18/16	---

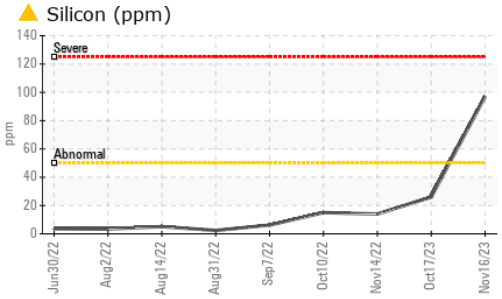
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**---**	0.47	---

OIL ANALYSIS REPORT

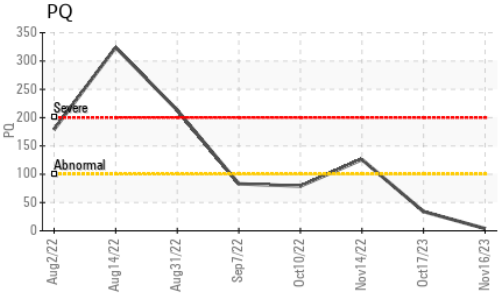
Water (KF)



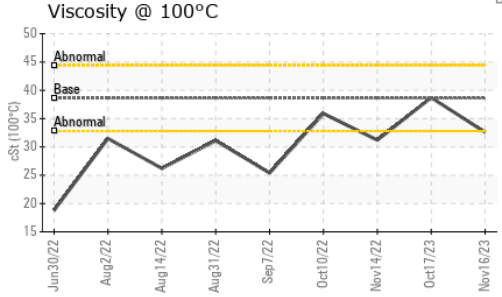
Silicon (ppm)



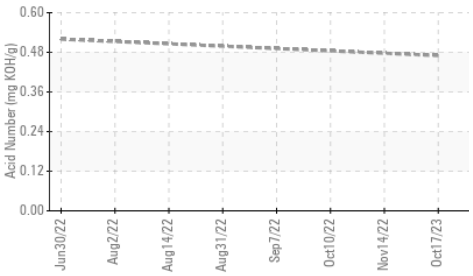
PQ



Viscosity @ 100°C

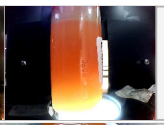
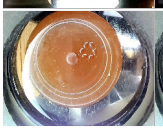


Acid Number



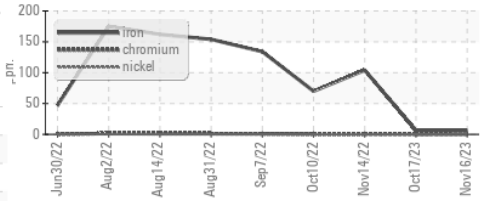
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	MODER	MODER
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**MODER**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	▲ **HAZY**	▲ HAZY	▲ HAZY
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**0.2%**	0.2%	0.2%
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	325.8	**335**	347	300
Visc @ 100°C	cSt	ASTM D445	38.6	**32.6**	38.7	31.2
Viscosity Index (VI)	Scale	ASTM D2270	169	▲ **137**	161	142

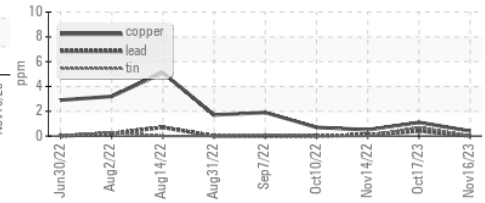
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					*no image*
Bottom					*no image*

GRAPHS

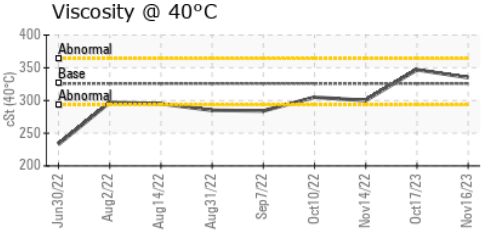
Ferrous Alloys



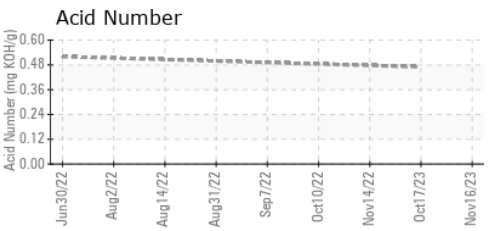
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO50001927 **Received** : 21 Nov 2023
Lab Number : 06014032 **Diagnosed** : 27 Nov 2023
Unique Number : 10753176 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: KF, KV100, PQ, PrtCount, VI)

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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