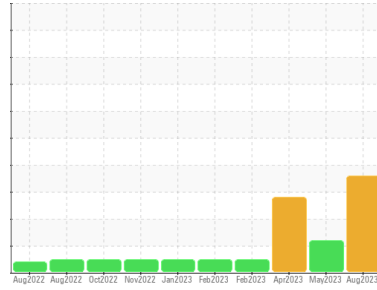


PROBLEM SUMMARY

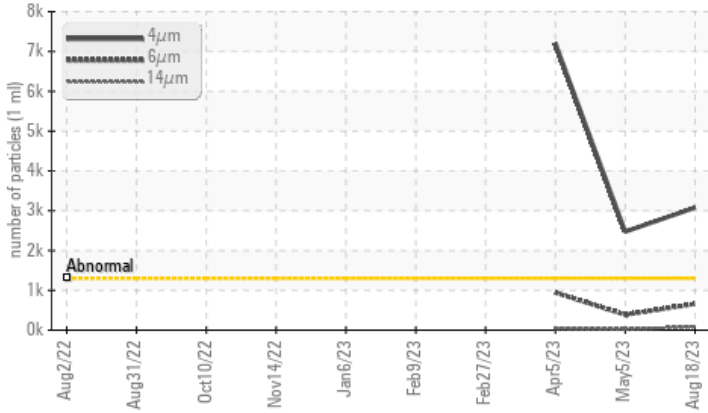
Sample Rating Trend



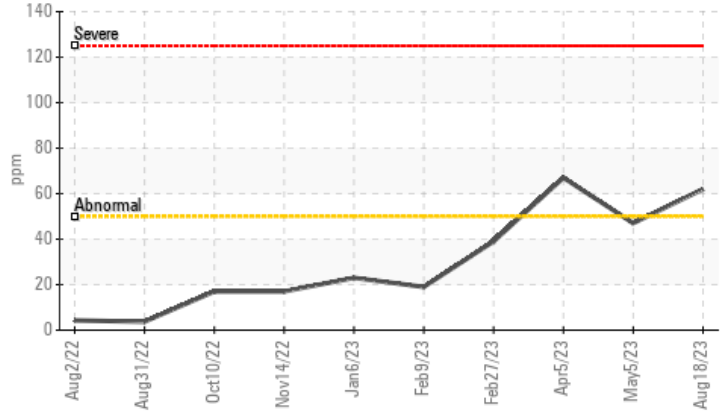
Area
Thermoforming
Machine Id
Line 12 A Extruder (S/N 328920-1-1)
Component
Bevel Helical Gearbox
Fluid
MOBIL SHC 632 (21 GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



▲ Silicon (ppm)



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. (Customer Sample Comment: Benjamin Castillo)

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ATTENTION	ABNORMAL
Silicon	ppm	ASTM D5185m >50	▲ 62	47	▲ 67
Particles >4µm		ASTM D7647 >1300	▲ 3078	▲ 2474	▲ 7205
Particles >6µm		ASTM D7647 >320	▲ 658	▲ 387	▲ 942
Particles >14µm		ASTM D7647 >80	▲ 81	22	39
Particles >21µm		ASTM D7647 >20	▲ 25	7	13
Oil Cleanliness		ISO 4406 (c) >17/15/13	▲ 19/17/14	▲ 18/16/12	▲ 20/17/12

Customer Id: DARDALTX
Sample No.: TO50001743
Lab Number: 05933499
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
Change Filter	---	---	?	We recommend you service the filters on this component.

HISTORICAL DIAGNOSIS

05 May 2023 Diag: Jonathan Hester

ISO



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate 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.

view report



05 Apr 2023 Diag: Doug Bogart

DIRT



No corrective action is recommended at this time. 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. Elemental level of silicon (Si) above normal indicating ingress of seal material. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



27 Feb 2023 Diag: Sean Felton

NORMAL

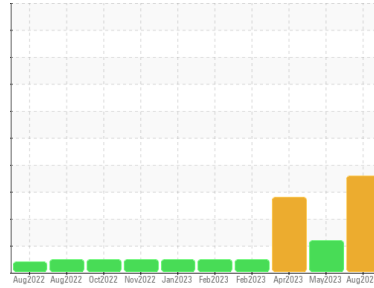


Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report



Area
Thermoforming
 Machine Id
Line 12 A Extruder (S/N 328920-1-1)
 Component
Bevel Helical Gearbox
 Fluid
MOBIL SHC 632 (21 GAL)



DIAGNOSIS

Recommendation
 We recommend you service the filters on this component. Resample at the next service interval to monitor. (Customer Sample Comment: Benjamin Castillo)

Wear
 All component wear rates are normal.

Contamination
 There is a high amount of particulates present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material.

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

SAMPLE INFORMATION	method	limit/base	current	history1	history2
Sample Number	Client Info		TO50001743	TO50001581	TO50001587
Sample Date	Client Info		18 Aug 2023	05 May 2023	05 Apr 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ATTENTION	ABNORMAL

WEAR METALS	method	limit/base	current	history1	history2
PQ	ASTM D8184		15	9	15
Iron	ppm	ASTM D5185m >150	14	13	23
Chromium	ppm	ASTM D5185m >10	0	<1	<1
Nickel	ppm	ASTM D5185m >10	0	1	<1
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	0	3	0
Lead	ppm	ASTM D5185m >100	0	<1	0
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	0	0	0

ADDITIVES	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m	2	0	1
Molybdenum	ppm	ASTM D5185m	0	<1	0
Manganese	ppm	ASTM D5185m	0	<1	<1
Magnesium	ppm	ASTM D5185m	0	<1	0
Calcium	ppm	ASTM D5185m	0	0	0
Phosphorus	ppm	ASTM D5185m	486	484	486
Zinc	ppm	ASTM D5185m	8	0	4
Sulfur	ppm	ASTM D5185m	0	144	208

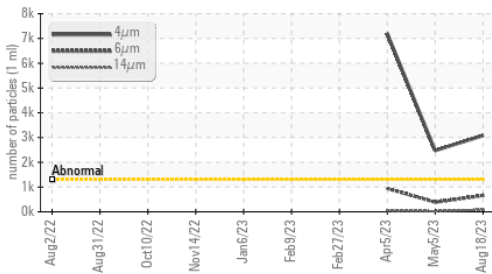
CONTAMINANTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	▲ 62	47	▲ 67
Sodium	ppm	ASTM D5185m	0	1	0
Potassium	ppm	ASTM D5185m >20	1	2	<1
Water	%	ASTM D6304 >0.1	0.003	0.009	0.006
ppm Water	ppm	ASTM D6304 >1000	27.0	90.8	67.5

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>1300	▲ 3078	▲ 2474	▲ 7205
Particles >6µm	ASTM D7647	>320	▲ 658	▲ 387	▲ 942
Particles >14µm	ASTM D7647	>80	▲ 81	22	39
Particles >21µm	ASTM D7647	>20	▲ 25	7	13
Particles >38µm	ASTM D7647	>4	3	0	2
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>17/15/13	▲ 19/17/14	▲ 18/16/12	▲ 20/17/12

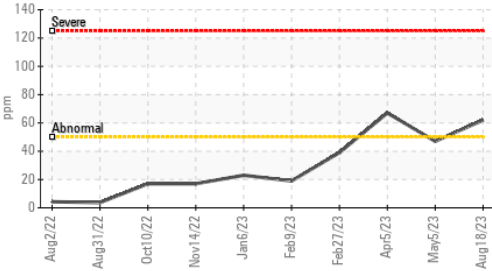
FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.48	0.55	0.49

OIL ANALYSIS REPORT

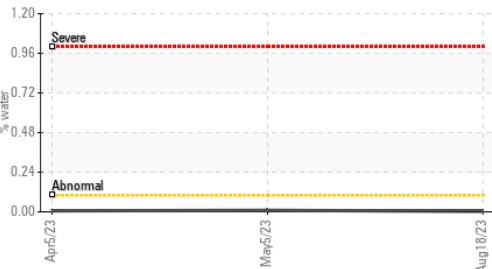
▲ Particle Trend



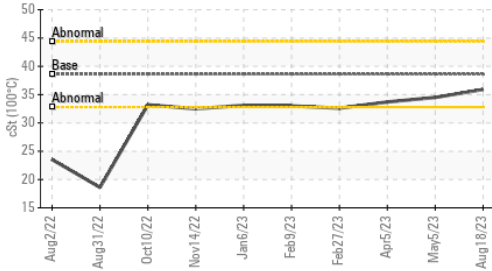
▲ Silicon (ppm)



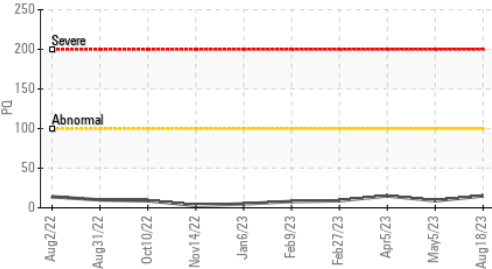
Water



Viscosity @ 100°C



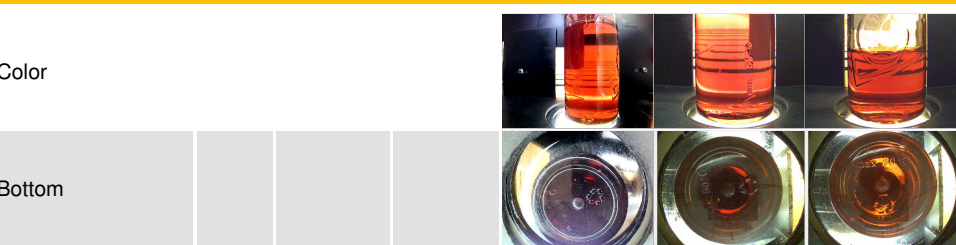
PQ



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

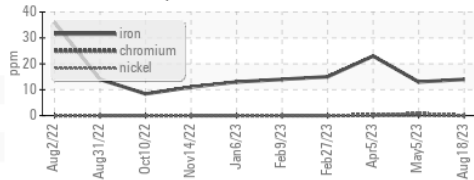
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	325.8	297	286
Visc @ 100°C	cSt	ASTM D445	38.6	35.9	34.5
Viscosity Index (VI)	Scale	ASTM D2270	169	168	166

SAMPLE IMAGES

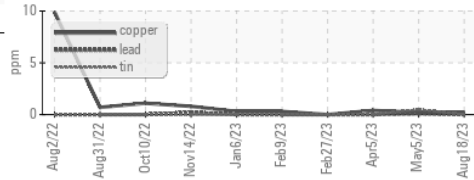


GRAPHS

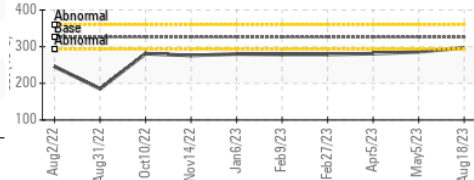
Ferrous Alloys



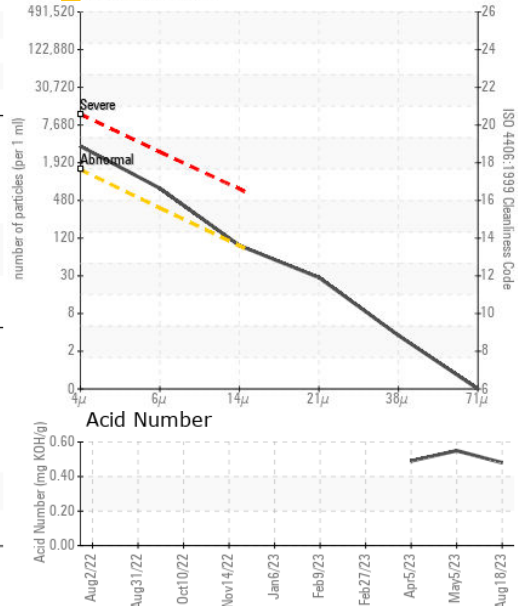
Non-ferrous Metals



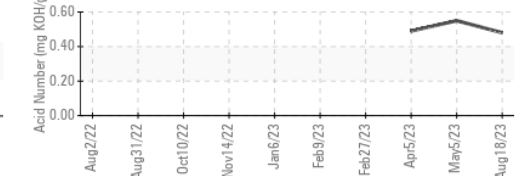
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO50001743 **Received** : 24 Aug 2023
Lab Number : 05933499 **Diagnosed** : 28 Aug 2023
Unique Number : 10618770 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: KF, KV100, PQ, PrtCount, VI)

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 DALLAS, TX
 US 75236
 Contact: YON PALOMINO
 yon.palomino@dart.biz
 T: (214)775-5673
 F:

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)