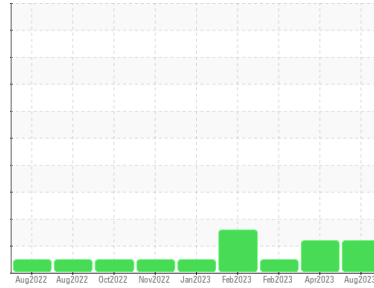


PROBLEM SUMMARY

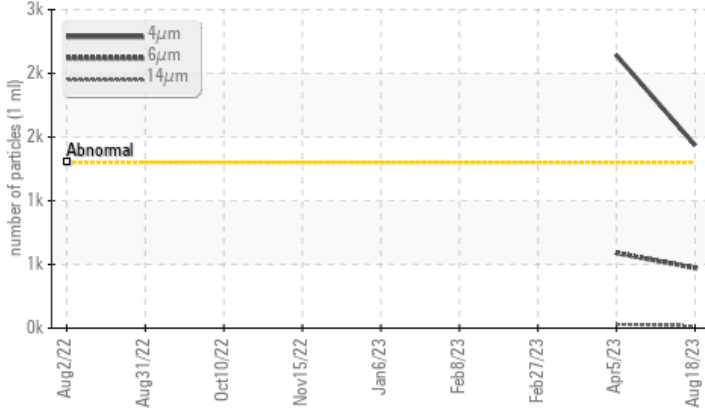
Sample Rating Trend



Area
THERMOFORMING
Machine Id
Line 8 Extruder B (S/N 4552-815132)
Component
Gearbox
Fluid
SUMMIT UNIPAR FG-320 (15)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

No corrective action is recommended at this time.
Resample at the next service interval to monitor. (Customer Sample Comment: Benjamin Castillo)

PROBLEMATIC TEST RESULTS

Sample Status			ATTENTION	ATTENTION	NORMAL
Particles >4µm	ASTM D7647	>1300	▲ 1436	▲ 2142	---
Particles >6µm	ASTM D7647	>320	▲ 472	▲ 590	---
Oil Cleanliness	ISO 4406 (c)	>17/15/13	▲ 18/16/11	▲ 18/16/12	---

Customer Id: DARDALTX
Sample No.: TO50001557
Lab Number: 05933503
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

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

05 Apr 2023 Diag: Doug Bogart

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



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



08 Feb 2023 Diag: Don Baldrige

DIRT

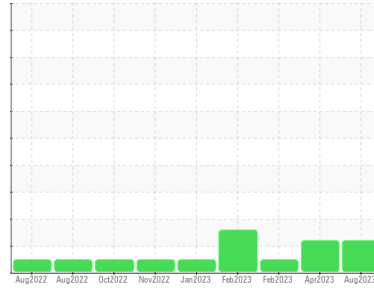


No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Elemental level of silicon (Si) above normal. The condition of the oil is acceptable for the time in service.

view report



Area
THERMOFORMING
 Machine Id
Line 8 Extruder B (S/N 4552-815132)
 Component
Gearbox
 Fluid
SUMMIT UNIPAR FG-320 (15)



DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. (Customer Sample Comment: Benjamin Castillo)

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

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	TO50001557	TO50001592	TO50001398
Sample Date	Client Info	18 Aug 2023	05 Apr 2023	27 Feb 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ATTENTION	ATTENTION	NORMAL

WEAR METALS

method	limit/base	current	history1	history2	
PQ	ASTM D8184	13	11	11	
Iron	ppm	ASTM D5185m >200	0	<1	0
Chromium	ppm	ASTM D5185m >15	0	<1	0
Nickel	ppm	ASTM D5185m >15	0	<1	0
Titanium	ppm	ASTM D5185m	0	0	<1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	0	0	0
Lead	ppm	ASTM D5185m >100	0	0	0
Copper	ppm	ASTM D5185m >200	<1	<1	0
Tin	ppm	ASTM D5185m >25	0	0	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	2	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	<1	<1
Magnesium	ppm	ASTM D5185m	0	0	6
Calcium	ppm	ASTM D5185m	<1	0	<1
Phosphorus	ppm	ASTM D5185m	675	632	546
Zinc	ppm	ASTM D5185m	4	5	4
Sulfur	ppm	ASTM D5185m	348	580	432

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >50	9	8	6
Sodium	ppm	ASTM D5185m	0	0	0
Potassium	ppm	ASTM D5185m >20	<1	0	0
Water	%	ASTM D6304 >0.2	0.003	0.007	---
ppm Water	ppm	ASTM D6304 >2000	25.2	76.0	---

FLUID CLEANLINESS

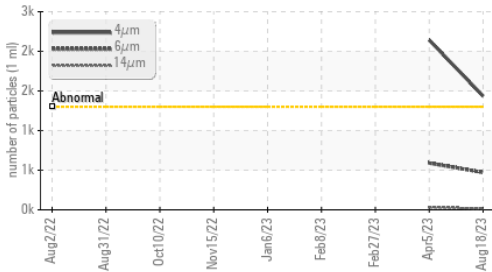
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >1300	▲ 1436	▲ 2142	---
Particles >6µm	ASTM D7647 >320	▲ 472	▲ 590	---
Particles >14µm	ASTM D7647 >80	16	30	---
Particles >21µm	ASTM D7647 >20	4	11	---
Particles >38µm	ASTM D7647 >4	0	0	---
Particles >71µm	ASTM D7647 >3	0	0	---
Oil Cleanliness	ISO 4406 (c) >17/15/13	▲ 18/16/11	▲ 18/16/12	---

FLUID DEGRADATION

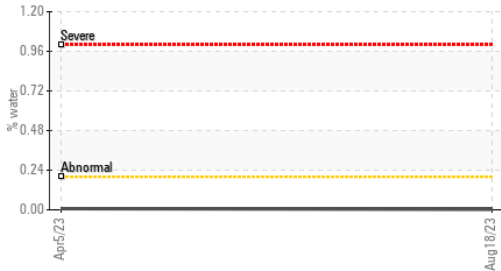
method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.68	0.60	---

OIL ANALYSIS REPORT

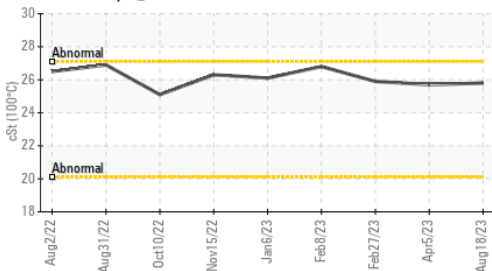
▲ Particle Trend



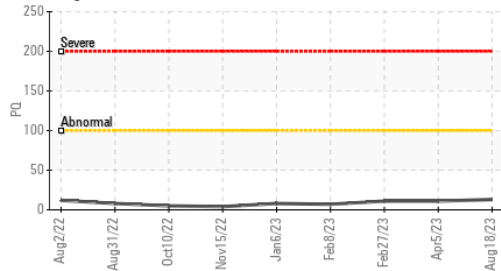
Water



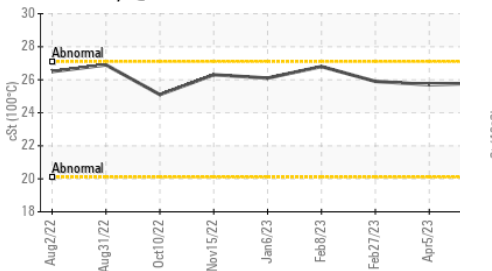
Viscosity @ 100°C



PQ



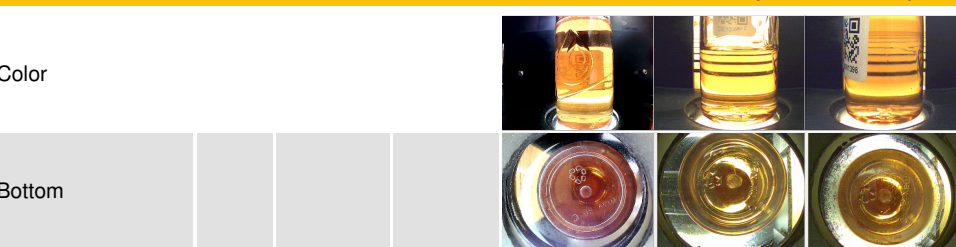
Viscosity @ 100°C



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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

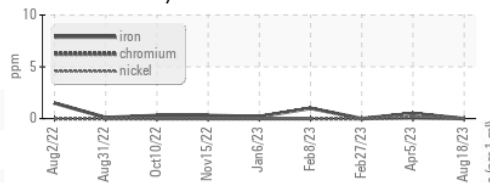
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	282	282	282
Visc @ 100°C	cSt	ASTM D445	25.8	25.7	25.9
Viscosity Index (VI)	Scale	ASTM D2270	118	118	119

SAMPLE IMAGES

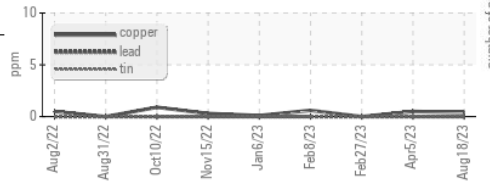


GRAPHS

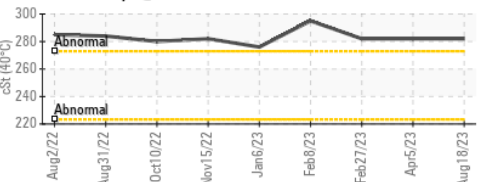
Ferrous Alloys



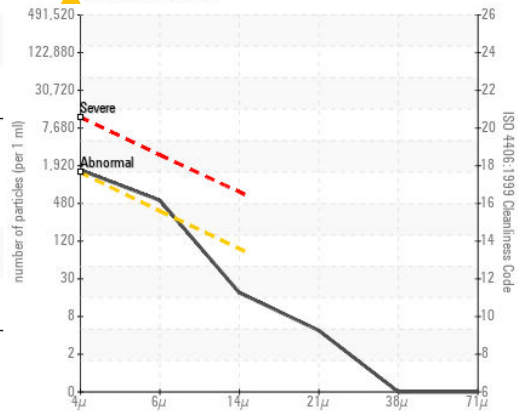
Non-ferrous Metals



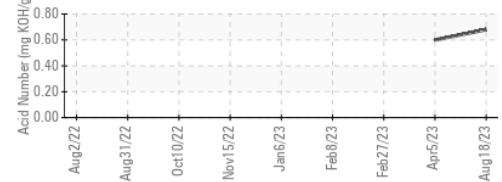
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO50001557 **Received** : 24 Aug 2023
Lab Number : 05933503 **Diagnosed** : 28 Aug 2023
Unique Number : 10618774 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: KF, KV100, PQ, PrtCount, VI)

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 4444 W LEADBETTER DR
 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)