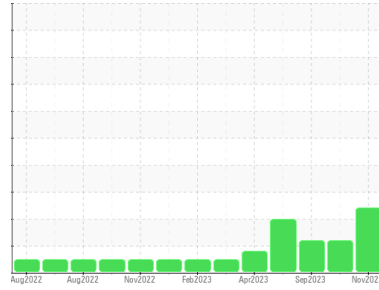


PROBLEM SUMMARY

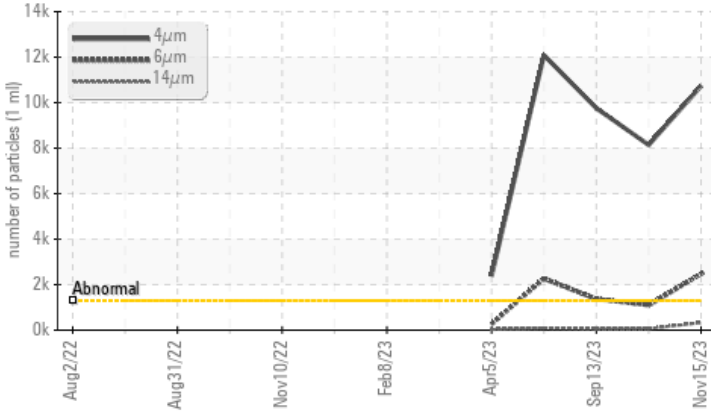
Sample Rating Trend



Area
Thermoforming
Machine Id
Line 3 C Extruder (S/N X8257)
Component
Bevel Helical Gearbox
Fluid
NOT GIVEN (18 GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	ABNORMAL
Particles >4µm	ASTM D7647	>1300	▲ 10733	▲ 8142	▲ 9757
Particles >6µm	ASTM D7647	>320	▲ 2474	▲ 1097	▲ 1371
Particles >14µm	ASTM D7647	>80	▲ 331	61	51
Particles >21µm	ASTM D7647	>20	▲ 140	18	17
Particles >38µm	ASTM D7647	>4	▲ 14	1	1
Oil Cleanliness	ISO 4406 (c)	>17/15/13	▲ 21/18/16	▲ 20/17/13	▲ 20/18/13

Customer Id: DARDALTX
Sample No.: TO50001974
Lab Number: 06013259
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldrige +1
don.b505@comcast.net

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 if applicable.

HISTORICAL DIAGNOSIS

18 Oct 2023 Diag: Angela Borella

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 high 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



13 Sep 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 high 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



18 Aug 2023 Diag: Jonathan Hester

ISO

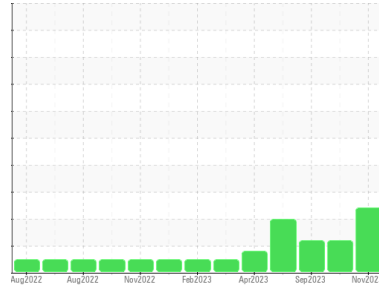


We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



Area
Thermoforming
 Machine Id
Line 3 C Extruder (S/N X8257)
 Component
Bevel Helical Gearbox
 Fluid
NOT GIVEN (18 GAL)



DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates 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	TO50001974	TO50001619	TO50001702
Sample Date	Client Info	15 Nov 2023	18 Oct 2023	13 Sep 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	Not Chngd	N/A	N/A
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2	
PQ	ASTM D8184	8	12	16	
Iron	ppm	ASTM D5185m >150	8	8	9
Chromium	ppm	ASTM D5185m >10	0	0	0
Nickel	ppm	ASTM D5185m >10	0	<1	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	0	<1	0
Lead	ppm	ASTM D5185m >100	1	<1	0
Copper	ppm	ASTM D5185m >50	4	4	4
Tin	ppm	ASTM D5185m >10	<1	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	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	<1	3	2
Calcium	ppm	ASTM D5185m	2	2	2
Phosphorus	ppm	ASTM D5185m	573	576	512
Zinc	ppm	ASTM D5185m	6	6	6
Sulfur	ppm	ASTM D5185m	641	699	860

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >50	12	14	13
Sodium	ppm	ASTM D5185m	0	2	1
Potassium	ppm	ASTM D5185m >20	0	1	0
Water	%	ASTM D6304 >0.1	0.005	0.003	0.003
ppm Water	ppm	ASTM D6304 >1000	50.5	35.7	34.1

FLUID CLEANLINESS

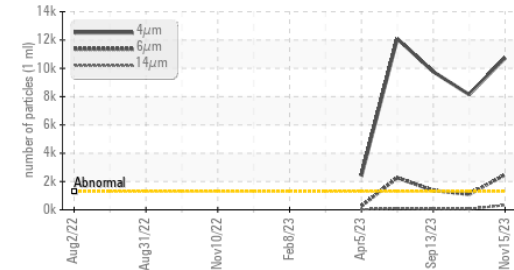
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >1300	▲ 10733	▲ 8142	▲ 9757
Particles >6µm	ASTM D7647 >320	▲ 2474	▲ 1097	▲ 1371
Particles >14µm	ASTM D7647 >80	▲ 331	61	51
Particles >21µm	ASTM D7647 >20	▲ 140	18	17
Particles >38µm	ASTM D7647 >4	▲ 14	1	1
Particles >71µm	ASTM D7647 >3	2	0	0
Oil Cleanliness	ISO 4406 (c) >17/15/13	▲ 21/18/16	▲ 20/17/13	▲ 20/18/13

FLUID DEGRADATION

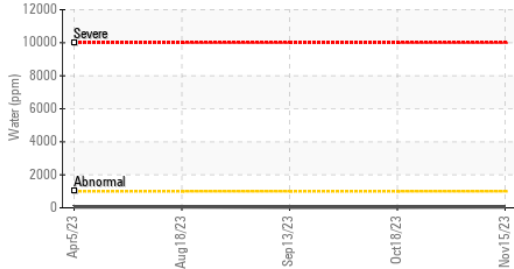
method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.66	0.73	0.67

OIL ANALYSIS REPORT

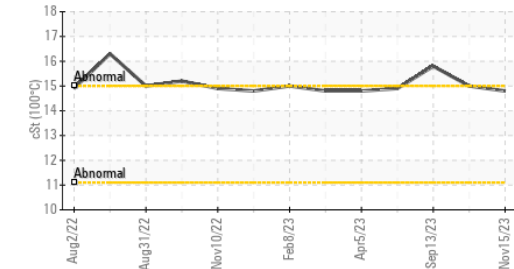
▲ Particle Trend



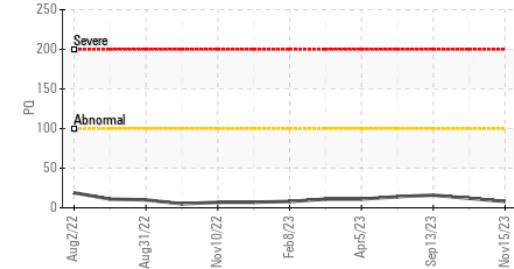
Water (KF)



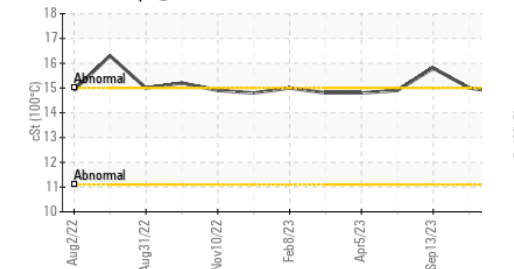
Viscosity @ 100°C



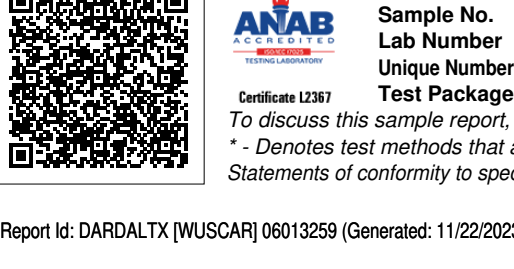
PQ



Viscosity @ 100°C



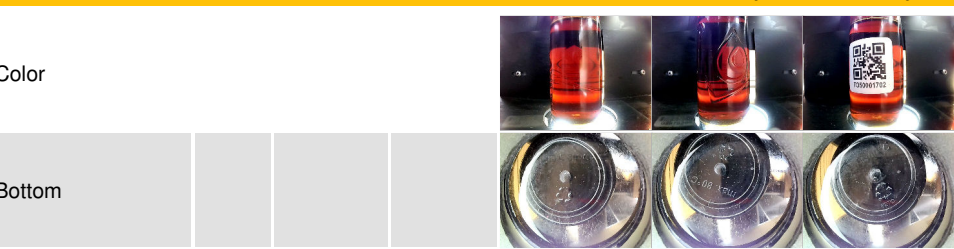
Viscosity @ 40°C



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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

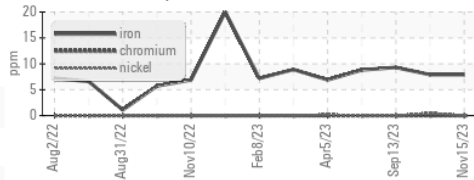
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	144	142	150
Visc @ 100°C	cSt	ASTM D445	14.8	15.0	15.8
Viscosity Index (VI)	Scale	ASTM D2270	102	106	108

SAMPLE IMAGES

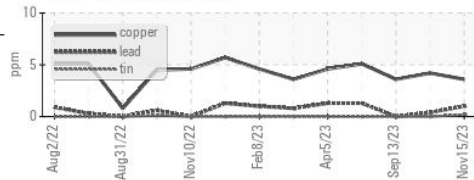


GRAPHS

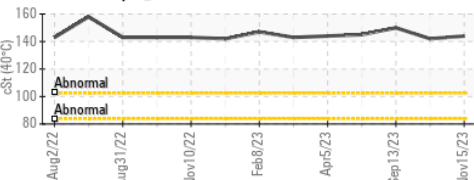
Ferrous Alloys



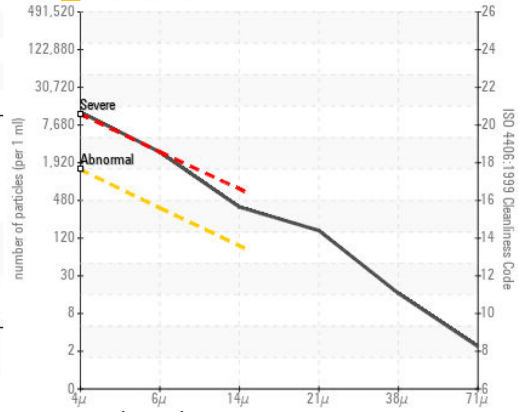
Non-ferrous Metals



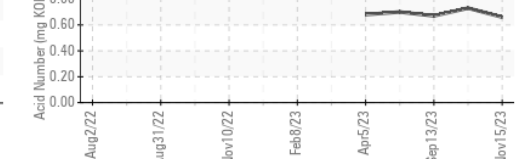
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO50001974 **Received** : 20 Nov 2023
Lab Number : 06013259 **Diagnosed** : 22 Nov 2023
Unique Number : 10752403 **Diagnostician** : Don Baldrige
Test Package : IND 2 (Additional Tests: KF, KV100, PQ, PrtCount, VI)

DART CONTAINER CORPORATION
 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)