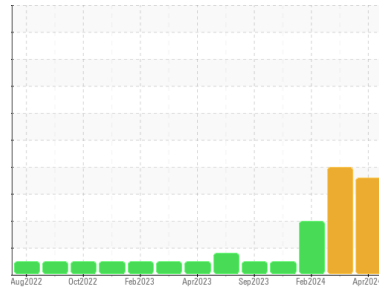


OIL ANALYSIS REPORT

Sample Rating Trend



Area
Thermoforming
 Machine Id
Line 4 D Extruder (S/N X8143)
 Component
Bevel Helical Gearbox
 Fluid
{not provided} (8 GAL)

DIAGNOSIS

Recommendation
 We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

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.

Fluid Condition
 The AN level is acceptable for this fluid.

SAMPLE INFORMATION	method	limit/base	current	history1	history2
Sample Number	Client Info		TO50002190	TO50002229	TO50002178
Sample Date	Client Info		17 Apr 2024	29 Mar 2024	29 Feb 2024
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Not Chngd	Filtered	Not Chngd
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS	method	limit/base	current	history1	history2
PQ	ASTM D8184		15	11	17
Iron	ppm	ASTM D5185m >150	<1	1	0
Chromium	ppm	ASTM D5185m >10	0	<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 >25	0	2	2
Lead	ppm	ASTM D5185m >100	0	0	0
Copper	ppm	ASTM D5185m >50	<1	<1	2
Tin	ppm	ASTM D5185m >10	0	0	0
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<1	<1
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	<1	0	0
Magnesium	ppm	ASTM D5185m	1	1	1
Calcium	ppm	ASTM D5185m	<1	5	34
Phosphorus	ppm	ASTM D5185m	550	630	539
Zinc	ppm	ASTM D5185m	0	12	13
Sulfur	ppm	ASTM D5185m	994	1043	723

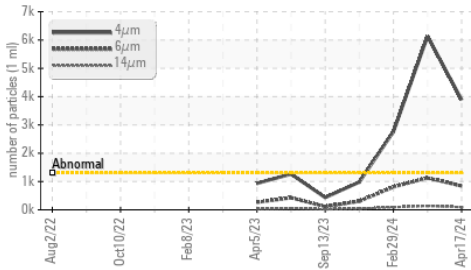
CONTAMINANTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	113	329	10
Sodium	ppm	ASTM D5185m	0	0	1
Potassium	ppm	ASTM D5185m >20	0	1	1
Water	%	ASTM D6304 >0.1	0.005	0.004	0.00
ppm Water	ppm	ASTM D6304 >1000	59	42	0

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>1300	3887	6132	2764
Particles >6µm	ASTM D7647	>320	843	1126	808
Particles >14µm	ASTM D7647	>80	94	137	92
Particles >21µm	ASTM D7647	>20	37	56	32
Particles >38µm	ASTM D7647	>4	3	10	3
Particles >71µm	ASTM D7647	>3	0	2	1
Oil Cleanliness	ISO 4406 (c)	>17/15/13	19/17/14	20/17/14	19/17/14

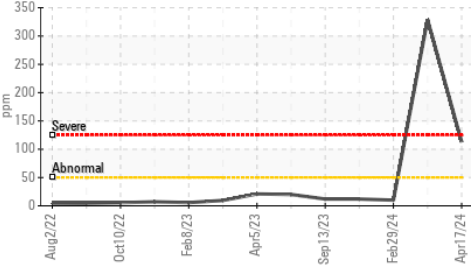
FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.76	0.73	0.71

OIL ANALYSIS REPORT

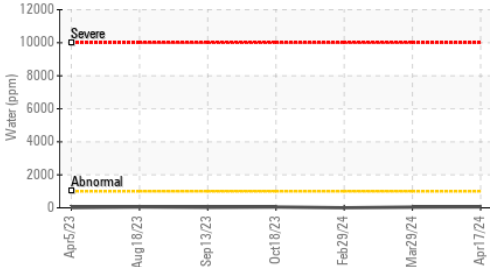
▲ Particle Trend



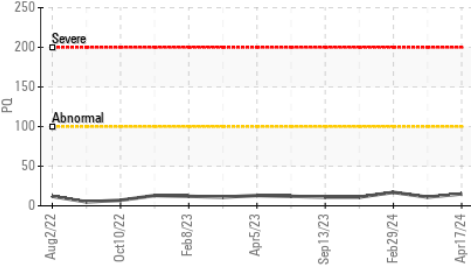
● Silicon (ppm)



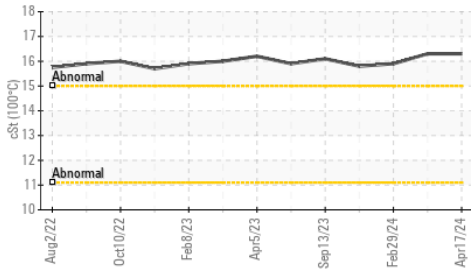
▲ Water (KF)



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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	166	160	156
Visc @ 100°C	cSt	ASTM D445	16.3	16.3	15.9
Viscosity Index (VI)	Scale	ASTM D2270	102	106	105

SAMPLE IMAGES	method	limit/base	current	history1	history2
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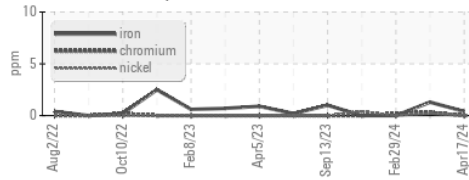
Color

Bottom

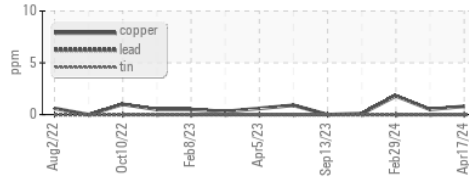


GRAPHS

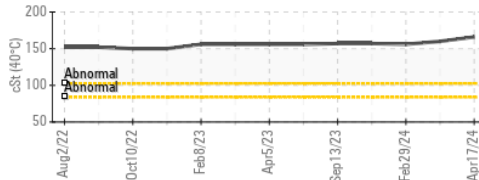
Ferrous Alloys



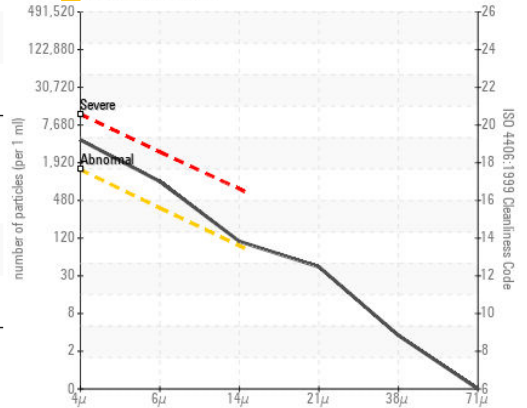
Non-ferrous Metals



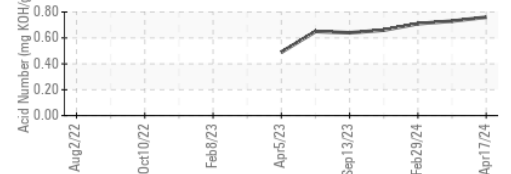
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : TO50002190

Lab Number : 06155942

Unique Number : 10991365

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)

DART CONTAINER CORPORATION

4444 W LEADBETTER DR

DALLAS, TX

US 75236

Contact: YON PALOMINO

yon.palomino@dart.biz

T: (214)775-5673

F: