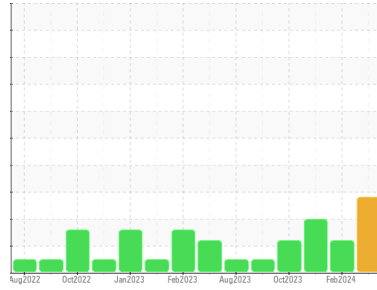


OIL ANALYSIS REPORT

Sample Rating Trend



Area
Thermoforming
 Machine Id
Line 10 B Extruder (S/N X8192)
 Component
Bevel Helical Gearbox
 Fluid
SUMMIT UNIPAR FG-150 (8 GAL)

DIAGNOSIS

Recommendation
 No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

Wear
 All component wear rates are normal.

Contamination
 There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. Elemental level of silicon (Si) above normal.

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			TO50002285	TO50002198	TO50001533
Sample Date	Client Info			17 Apr 2024	26 Feb 2024	15 Nov 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			Not Changed	Not Changed	Not Changed
Sample Status				ATTENTION	ATTENTION	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		12	13	13
Iron	ppm	ASTM D5185m	>150	0	0	0
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	10	0	<1
Titanium	ppm	ASTM D5185m		<1	0	0
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	>50	<1	0	0
Tin	ppm	ASTM D5185m	>10	0	0	<1
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	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		<1	0	<1
Calcium	ppm	ASTM D5185m		<1	2	2
Phosphorus	ppm	ASTM D5185m		584	634	673
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m		690	622	645

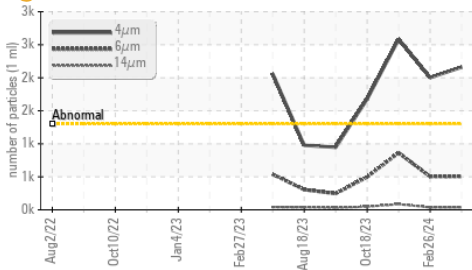
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	5946	49	12
Sodium	ppm	ASTM D5185m		0	<1	<1
Potassium	ppm	ASTM D5185m	>20	0	0	0
Water	%	ASTM D6304	>0.1	0.003	0.002	0.002
ppm Water	ppm	ASTM D6304	>1000	35	21	22.3

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>1300	2161	2002	2583
Particles >6µm		ASTM D7647	>320	504	503	863
Particles >14µm		ASTM D7647	>80	38	36	85
Particles >21µm		ASTM D7647	>20	12	10	28
Particles >38µm		ASTM D7647	>4	2	0	2
Particles >71µm		ASTM D7647	>3	0	0	1
Oil Cleanliness		ISO 4406 (c)	>17/15/13	18/16/12	18/16/12	19/17/14

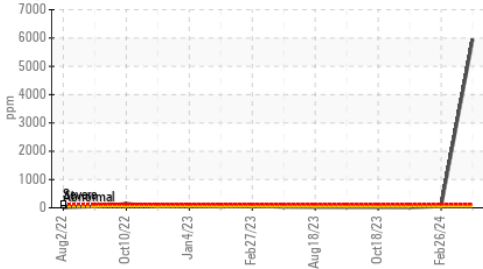
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.71	0.78	0.65

OIL ANALYSIS REPORT

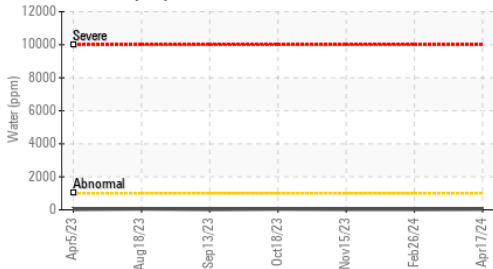
Particle Trend



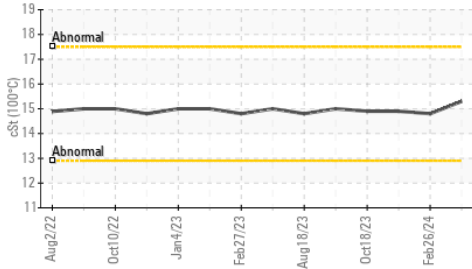
Silicon (ppm)



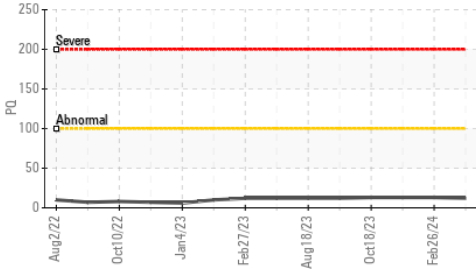
Water (KF)



Viscosity @ 100°C



PQ



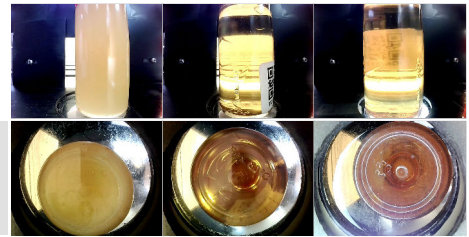
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	144	148	144
Visc @ 100°C	cSt	ASTM D445	15.3	14.8	14.9
Viscosity Index (VI)	Scale	ASTM D2270	108	99	103

SAMPLE IMAGES	method	limit/base	current	history1	history2
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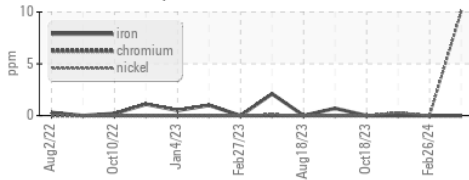
Color

Bottom

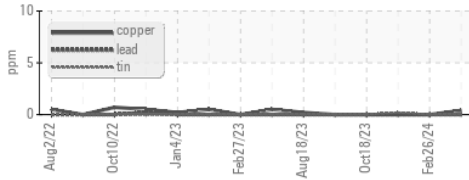


GRAPHS

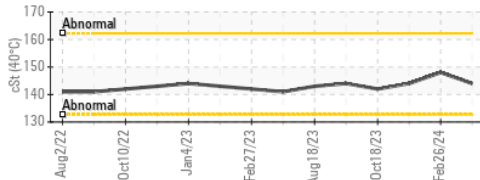
Ferrous Alloys



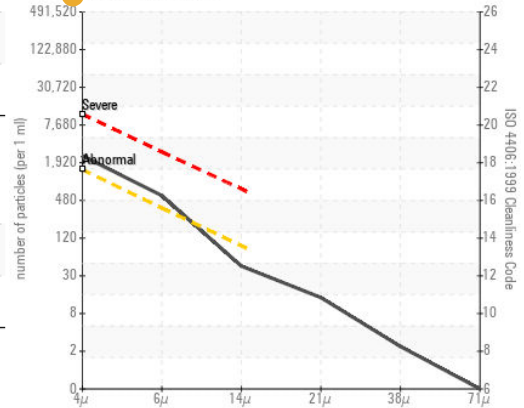
Non-ferrous Metals



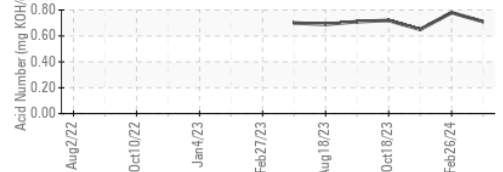
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO50002285 **Received** : 22 Apr 2024
Lab Number : 06155947 **Tested** : 23 Apr 2024
Unique Number : 10991370 **Diagnosed** : 24 Apr 2024 - Jonathan Hester
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)