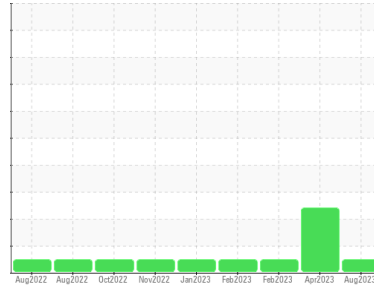


Area
Thermoforming
 Machine Id
Line 6 Extruder (S/N 29713897/2)
 Component
Bevel Helical Gearbox
 Fluid
SUMMIT UNIPAR FG-320 (45 GAL)



DIAGNOSIS

Recommendation
 Resample at the next service interval to monitor. (Customer Sample Comment: Cs)

Wear
 All component wear rates are normal.

Contamination
 There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition
 Confirm oil type. 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			TO50001778	TO50001590	TO50001415
Sample Date	Client Info			18 Aug 2023	05 Apr 2023	27 Feb 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				NORMAL	ABNORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		7	13	7
Iron	ppm	ASTM D5185m	>150	<1	<1	<1
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	<1	0	0
Lead	ppm	ASTM D5185m	>100	0	0	0
Copper	ppm	ASTM D5185m	>50	<1	1	<1
Tin	ppm	ASTM D5185m	>10	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

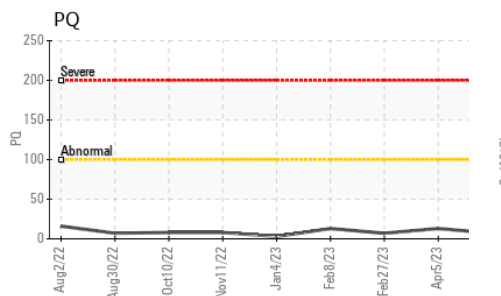
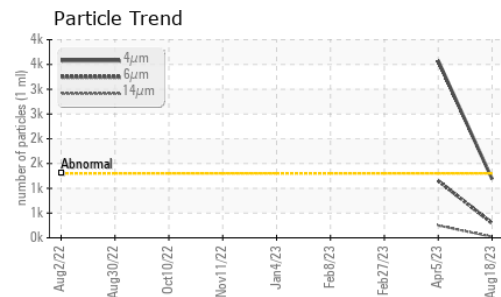
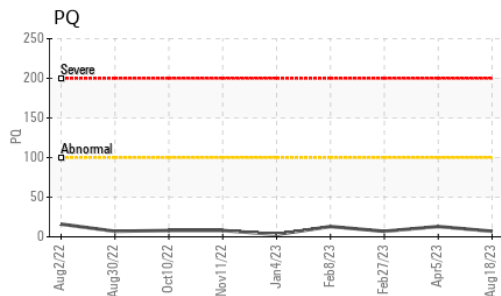
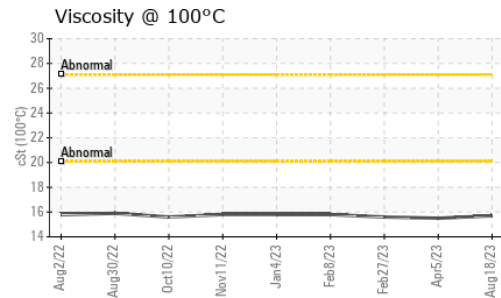
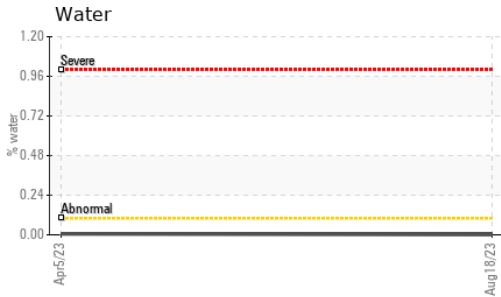
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	4	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		0	0	5
Calcium	ppm	ASTM D5185m		0	0	0
Phosphorus	ppm	ASTM D5185m		688	679	602
Zinc	ppm	ASTM D5185m		0	6	3
Sulfur	ppm	ASTM D5185m		673	575	403

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	4	6	3
Sodium	ppm	ASTM D5185m		0	0	0
Potassium	ppm	ASTM D5185m	>20	<1	<1	0
Water	%	ASTM D6304	>0.1	0.001	0.005	---
ppm Water	ppm	ASTM D6304	>1000	4.5	58.9	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>1300	1187	▲ 3576	---
Particles >6µm		ASTM D7647	>320	296	▲ 1152	---
Particles >14µm		ASTM D7647	>80	22	▲ 249	---
Particles >21µm		ASTM D7647	>20	5	▲ 135	---
Particles >38µm		ASTM D7647	>4	0	▲ 14	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>17/15/13	17/15/12	▲ 19/17/15	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.81	0.80	---

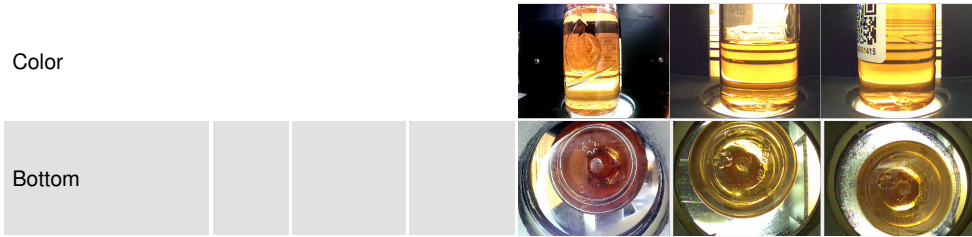
OIL ANALYSIS REPORT



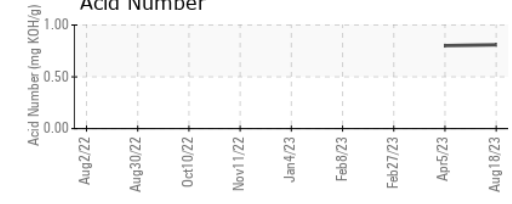
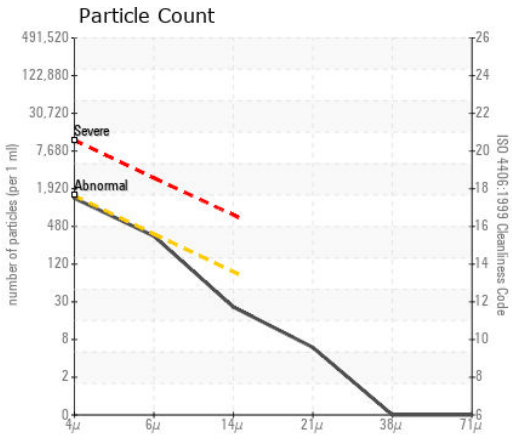
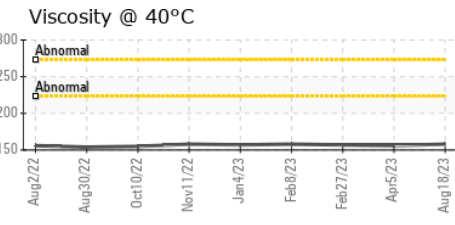
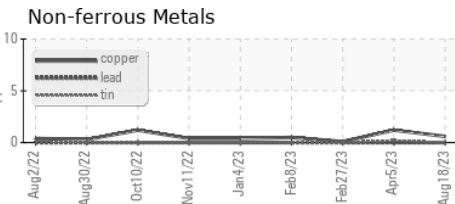
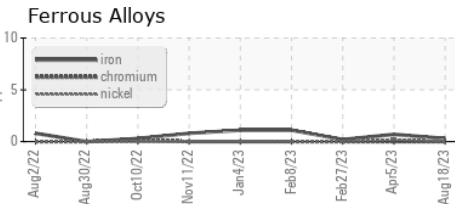
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	158	156	157
Visc @ 100°C	cSt	ASTM D445	15.7	15.5	15.6
Viscosity Index (VI)	Scale	ASTM D2270	101	100	101

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO50001778 **Received** : 23 Aug 2023
Lab Number : 05932794 **Diagnosed** : 27 Aug 2023
Unique Number : 10618065 **Diagnostician** : Doug Bogart
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)