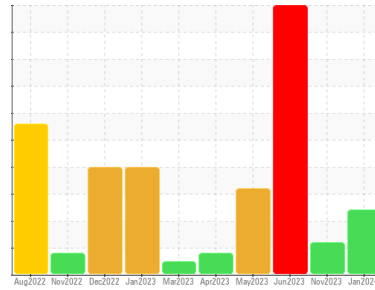


Area
Paper Cup Machines
 Machine Id
PMC 1003 POS-411 (S/N 181321)
 Component
Circulating System
 Fluid
SUMMIT Syngear SH-1032 320 (85 GAL)



DIAGNOSIS

Recommendation

We recommend you service the filters on this component. 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	TO50002012	TO50001994	TO50001732
Sample Date	Client Info	29 Jan 2024	17 Nov 2023	13 Jun 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	Not Changed	Not Changed	N/A
Sample Status		ABNORMAL	ABNORMAL	SEVERE

WEAR METALS

method	limit/base	current	history1	history2	
PQ	ASTM D8184	17	8	15	
Iron	ppm	ASTM D5185m	10	13	13
Chromium	ppm	ASTM D5185m	<1	<1	0
Nickel	ppm	ASTM D5185m	29	12	▲ 41
Titanium	ppm	ASTM D5185m	<1	<1	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m	<1	2	0
Lead	ppm	ASTM D5185m	1	<1	<1
Copper	ppm	ASTM D5185m	2	2	2
Tin	ppm	ASTM D5185m	1	<1	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	<1	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	59	69	66
Barium	ppm	ASTM D5185m	0	0	1
Molybdenum	ppm	ASTM D5185m	0	<1	0
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	0	<1	<1
Calcium	ppm	ASTM D5185m	0	4	4
Phosphorus	ppm	ASTM D5185m	447	498	440
Zinc	ppm	ASTM D5185m	1	0	9
Sulfur	ppm	ASTM D5185m	5971	6471	7366

CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	14922	10789	16253	
Sodium	ppm	ASTM D5185m	<1	<1	0	
Potassium	ppm	ASTM D5185m	>20	0	1	2
Water	%	ASTM D6304	0.016	0.023	● 4.824	
ppm Water	ppm	ASTM D6304	164	233	● 48240	

FLUID CLEANLINESS

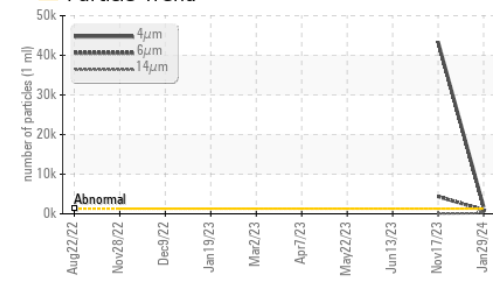
method	limit/base	current	history1	history2	
Particles >4µm	ASTM D7647	>1300	▲ 1775	▲ 43385	---
Particles >6µm	ASTM D7647	>320	▲ 967	▲ 4365	---
Particles >14µm	ASTM D7647	>80	▲ 165	54	---
Particles >21µm	ASTM D7647	>20	▲ 55	9	---
Particles >38µm	ASTM D7647	>4	▲ 9	1	---
Particles >71µm	ASTM D7647	>3	1	1	---
Oil Cleanliness	ISO 4406 (c)	>17/15/13	▲ 18/17/15	▲ 23/19/13	---

FLUID DEGRADATION

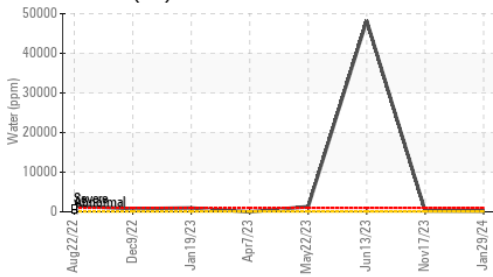
method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.83	0.63	0.74

OIL ANALYSIS REPORT

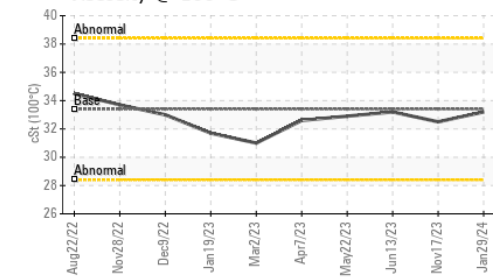
▲ Particle Trend



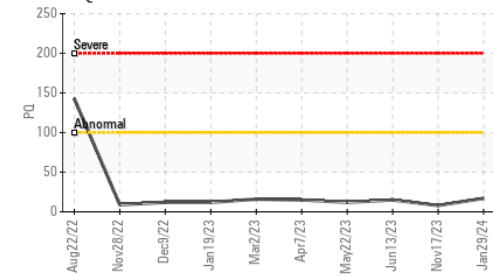
Water (KF)



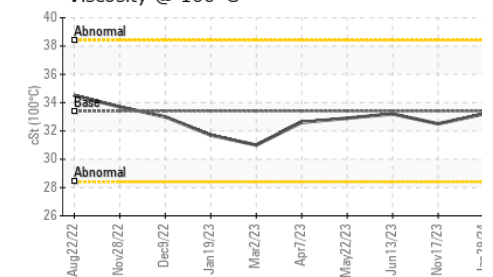
Viscosity @ 100°C



PQ



Viscosity @ 100°C

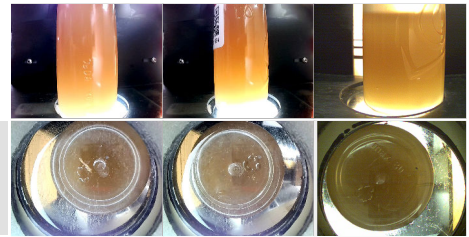


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	▲ MODER
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	MILKY	▲ HAZY
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	NEG	NEG	● 0.2%
Free Water	scalar	*Visual	NEG	NEG	● 1.0

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	326	311.7	325	328
Visc @ 100°C	cSt	ASTM D445	33.4	33.2	32.5	33.2
Viscosity Index (VI)	Scale	ASTM D2270	145	148	140	142

SAMPLE IMAGES

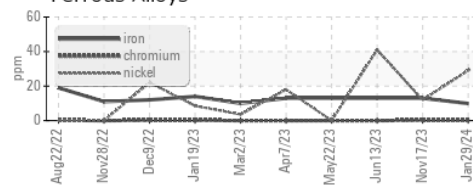
Color



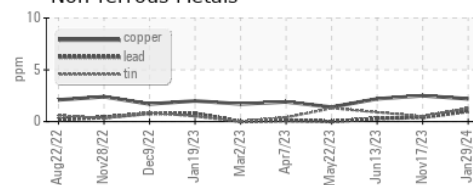
Bottom

GRAPHS

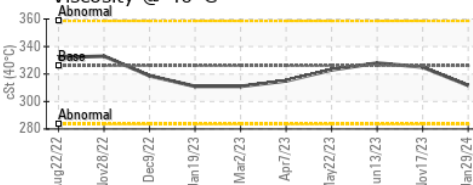
Ferrous Alloys



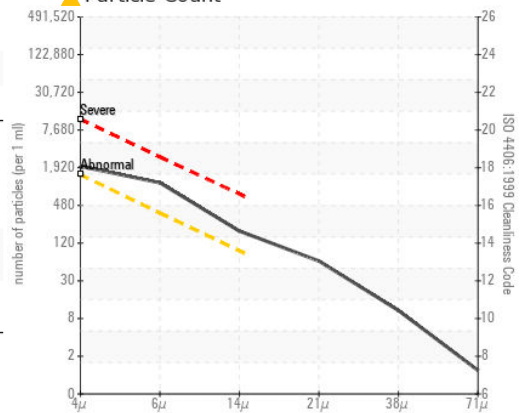
Non-ferrous Metals



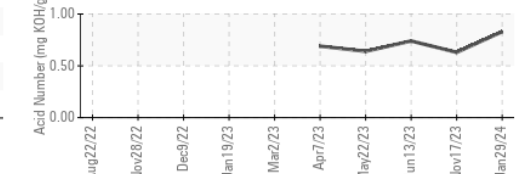
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO50002012 **Received** : 01 Feb 2024
Lab Number : 06076844 **Tested** : 07 Feb 2024
Unique Number : 10858935 **Diagnosed** : 07 Feb 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)