

PROBLEM SUMMARY

Machine Id FRICK FRICK A Component

Screw Compressor Fluid COMPRESSOR OIL ISO 100 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS								
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL		
Water	%	ASTM D6304	>0.1	A 0.326	0.320	0.330		
ppm Water	ppm	ASTM D6304	>1000	A 3267.4	▲ 3203.0	A 3306.1		

Customer Id: GARROW Sample No.: TO60000856 Lab Number: 05832012 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Don Baldridge +1 <u>don.b505@comcast.net</u>

To change component or sample information: Customer Service +1 1-800-237-1369 <u>customerservice@wearcheck.com</u>



RECOMMENDED ACTIONS						
Action	Status	Date	Done By	Description		
Change Filter	MISSED	Jun 12 2023	?	We recommend you service the filters on this component.		

HISTORICAL DIAGNOSIS



07 Mar 2023 Diag: Doug Bogart

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 moderate amount of silt (particulates < 14 microns in size) present in the oil. There is a light concentration of water present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

07 Feb 2023 Diag: Doug Bogart

WATER



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 moderate amount of silt (particulates < 6 microns in size) present in the oil. There is a light concentration of water present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

01 Dec 2022 Diag: Don Baldridge

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 light concentration of water present in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



view report

view report







OIL ANALYSIS REPORT

Sample Rating Trend

WATER

FRICK FRICK A

Screw Compressor Fluid COMPRESSOR OIL ISO 100 (--- 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 light concentration of water present in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition

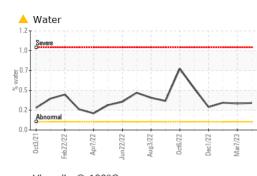
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

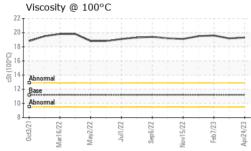
Sample Date Info 24 Apr 2023 07 Mar 2023 07 Feb 2023 Vachine Age hrs Client Info 0 0 0 Dil Age hrs Client Info 0 0 0 Dil Changed Client Info N/A N/A N/A Sample Status Imit Differ N/A N/A N/A WEAR METALS method Imit/base current history1 history2 ron ppm ASTM DS185m >60 <1 0 0 Chromium ppm ASTM DS185m >60 <1 0 0 Titanium ppm ASTM DS185m 55 0 <1 0 0 Cadmium ppm ASTM DS185m >10 0 0 0 0 0 Adadium ppm ASTM DS185m 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 <			Dct2021 Feb2	022 Apr2022 Jun2022	Aug2022 Oct2022 Dec2022	Mar2023	
Sample Date Client Info 24 Apr 2023 07 Mar 2023 07 Feb 2023 Machine Age hrs Client Info 0 0 0 DI Age hrs Client Info 0 0 0 DI Changed K Client Info N/A N/A N/A Sample Status method limi/base current history1 ABNORMAL VEAR METALS method limi/base current history1 history2 ron ppm ASTM 05155m -60 <1 0 0 Vikel ppm ASTM 05155m 0 0 0 0 Vikel ppm ASTM 05155m 5 0 0 0 0 Siker ppm ASTM 05155m >30 0 0 0 0 Vikadum ppm ASTM 05155m >30 0 0 0 0 Vikadum ppm ASTM 05155m >30 0 0 0 <th>SAMPLE INFORM</th> <th>IATION</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 0 0 0 Dil Age hrs Client Info N/A N/A N/A N/A Dil Ghanged Client Info N/A N/A N/A N/A N/A Sample Status Imit/Dase current history1 history2 ron ppm ASTM D5185n >60 <1	Sample Number		Client Info		TO60000856	TO70000057	TO70000053
Dil Age hrs Client Info 0 0 0 Dil Changed Client Info N/A N/A N/A N/A Sample Status method limit/base current history1 history2 ron ppm ASTM DISISm >60 <1	Sample Date		Client Info		24 Apr 2023	07 Mar 2023	07 Feb 2023
Dil Changed Client Info N/A N/A N/A ABNORMAL ABNORMAL ABNORMAL ABNORMAL ABNORMAL ABNORMAL WEAR METALS method limit/base current history1 history2 iron ppm ASTM D5185m >60 <1 0 0 Chromium ppm ASTM D5185m >60 <1 0 0 Kickel ppm ASTM D5185m >60 <1 0 0 River ppm ASTM D5185m >5 0 <10 0 0 Copper ppm ASTM D5185m >50 0 <11 <11 Cadmium ppm ASTM D5185m >10 0 0 0 0 Cadmium ppm ASTM D5185m 5 0 0 0 0 ASTM D5185m 5 0 0 0 0 0 Cadmium ppm ASTM D5185m 5 0 0	Machine Age	hrs	Client Info		0	0	0
Sample Status method Imit/base current history1 ABNORMAL ABNORMAL WEAR METALS method Imit/base current history1 history2 tron ppm ASTM D5185m >60 <1	Oil Age	hrs	Client Info		0	0	0
WEAR METALS method limit/base current history1 history2 ron ppm ASTM D5185m >60 <1	Oil Changed		Client Info		N/A	N/A	N/A
ron ppm ASTM D5185m >60 <1 0 0 Chromium ppm ASTM D5185m 0 0 0 0 Nickel ppm ASTM D5185m 0 <1	Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Dromium ppm ASTM D5185m >4 0 0 0 Nickel ppm ASTM D5185m 0 <1 0 Silver ppm ASTM D5185m 0 <1 0 Silver ppm ASTM D5185m >5 0 <1 0 Lead ppm ASTM D5185m >10 0 0 0 Lead ppm ASTM D5185m >15 <1 <1 <1 <1 Vanadium ppm ASTM D5185m >15 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m 0 0 0 0 Fitanium ppm ASTM D5185m 0 <1	Iron	ppm	ASTM D5185m	>60	<1	0	0
Titanium ppm ASTM D5185m 0 <1 0 Silver ppm ASTM D5185m >5 0 <1	Chromium	ppm	ASTM D5185m	>4	0	0	0
Silver ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m >5 0 <1	Nickel	ppm	ASTM D5185m		0	0	0
Numinum ppm ASTM D5185m >5 0 <1 0 Lead ppm ASTM D5185m >10 0 0 0 Copper ppm ASTM D5185m >15 <1	Titanium	ppm	ASTM D5185m		0	<1	0
Lead ppm ASTM D5185m >10 0 0 0 Copper ppm ASTM D5185m >30 0 0 0 Vanadium ppm ASTM D5185m >15 <1	Silver	ppm	ASTM D5185m		0	0	0
Copper ppm ASTM D5185m >30 0 0 0 Fin ppm ASTM D5185m >15 <1	Aluminum	ppm	ASTM D5185m	>5	0	<1	0
Tin ppm ASTM D5185m >15 <1 <1 <1 Vanadium ppm ASTM D5185m 0 <1	_ead	ppm	ASTM D5185m	>10	0	0	0
Vanadium ppm ASTM D5185m 0 <1 <1 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 5 0 0 0 Barium ppm ASTM D5185m 5 0 0 0 Wolybdenum ppm ASTM D5185m 5 0 0 0 Magnese ppm ASTM D5185m 5 <1	Copper	ppm	ASTM D5185m	>30	0	0	0
Vanadium ppm ASTM D5185m 0 <1 <1 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 5 0 0 0 Barium ppm ASTM D5185m 5 0 0 0 Maganese ppm ASTM D5185m 5 <1	Tin	ppm	ASTM D5185m	>15	<1	<1	<1
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 5 0 0 0 Barium ppm ASTM D5185m 5 0 0 0 Molybdenum ppm ASTM D5185m 5 0 0 0 Magnesium ppm ASTM D5185m 5 <1	Vanadium	ppm	ASTM D5185m		0	<1	<1
Boron ppm ASTM D5185m 5 0 0 0 Barium ppm ASTM D5185m 5 0 0 0 Maganese ppm ASTM D5185m 5 0 0 0 Magnesium ppm ASTM D5185m 5 <1	Cadmium		ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 5 0 0 0 Molybdenum ppm ASTM D5185m 5 0 0 0 Maganese ppm ASTM D5185m 5 <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 5 0 0 0 Manganese ppm ASTM D5185m 5 <1	Boron	ppm	ASTM D5185m	5	0	0	0
Manganese ppm ASTM D5185m 0 <1 0 Magnesium ppm ASTM D5185m 5 <1	Barium	ppm	ASTM D5185m	5	0	0	0
Magnesium ppm ASTM D5185m 5 <1	Volybdenum	ppm	ASTM D5185m	5	0	0	0
Calcium ppm ASTM D5185m 5 1 0 2 Phosphorus ppm ASTM D5185m 150 22 27 32 Zinc ppm ASTM D5185m 5 <1	Vanganese	ppm	ASTM D5185m		0	<1	0
Phosphorus ppm ASTM D5185m 150 22 27 32 Zinc ppm ASTM D5185m 5 <1	Vagnesium	ppm	ASTM D5185m	5	<1	2	<1
Zinc ppm ASTM D5185m 5 <1 0 4 Sulfur ppm ASTM D5185m 5000 3188 3098 3058 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 30 39 47 Sodium ppm ASTM D5185m >50 30 39 47 Sodium ppm ASTM D5185m >50 30 39 47 Sodium ppm ASTM D5185m >20 <1 0 3 Potassium ppm ASTM D6304 >0.1 0.326 0.320 0.330 Potassium ppm ASTM D6304 >1000 3267.4 3203.0 3306.1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 8711 15823 10453 Particles >4µm ASTM D7647 >2500 2043 3317 1917 Particles >1µm ASTM D7647 <t< td=""><td>Calcium</td><td>ppm</td><td>ASTM D5185m</td><td>5</td><th>1</th><td>0</td><td>2</td></t<>	Calcium	ppm	ASTM D5185m	5	1	0	2
Zinc ppm ASTM D5185m 5 <1 0 4 Sulfur ppm ASTM D5185m 5000 3188 3098 3058 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 30 39 47 Sodium ppm ASTM D5185m >50 30 39 47 Sodium ppm ASTM D5185m >50 30 39 47 Sodium ppm ASTM D5185m >20 <1	Phosphorus	ppm	ASTM D5185m	150	22	27	32
Sulfur ppm ASTM D5185m 5000 3188 3098 3058 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 30 39 47 Sodium ppm ASTM D5185m >50 30 39 47 Sodium ppm ASTM D5185m >20 <1 0 3 Potassium ppm ASTM D5185m >20 <1 <1 <1 <1 Water % ASTM D6304 >0.1 ▲ 0.326 ▲ 0.320 ▲ 0.330 opm Water ppm ASTM D6304 >1000 ▲ 3267.4 ▲ 3203.0 ▲ 3306.1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 &711 ▲ 15823 ▲ 10453 Particles >14µm ASTM D7647 >2500 2043 ▲ 3317 1917 Particles >38µm A	Zinc	ppm	ASTM D5185m	5	<1	0	4
Silicon ppm ASTM D5185m >50 30 39 47 Sodium ppm ASTM D5185m <1	Sulfur		ASTM D5185m	5000	3188	3098	3058
Sodium ppm ASTM D5185m <1 0 3 Potassium ppm ASTM D5185m >20 <1	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 <1 <1 <1 Water % ASTM D6304 >0.1 ▲ 0.326 ▲ 0.320 ▲ 0.330 oppm Water ppm ASTM D6304 >1000 3267.4 ▲ 3203.0 ▲ 3306.1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 8711 ▲ 15823 ▲ 10453 Particles >6µm ASTM D7647 >2500 2043 ▲ 3317 1917 Particles >14µm ASTM D7647 >320 104 115 93 Particles >21µm ASTM D7647 >20 1 1 2 Particles >38µm ASTM D7647 >20 1 1 2 Particles >71µm ASTM D7647 >4 0 0 0 Oil Cleanliness ISO 4406 (c) >20/18/15 20/18/14 21/19/14 21/18/14 FLUID DEGRADATION method limit/base current history1 history2	Silicon	ppm	ASTM D5185m	>50	30	39	47
Water % ASTM D6304 >0.1 0.326 0.320 0.330 opm Water ppm ASTM D6304 >1000 3267.4 3203.0 3306.1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 8711 15823 10453 Particles >6µm ASTM D7647 >2500 2043 3317 1917 Particles >14µm ASTM D7647 >320 104 115 93 Particles >21µm ASTM D7647 >20 1 1 2 Particles >38µm ASTM D7647 >20 1 1 2 Particles >71µm ASTM D7647 >4 0 0 0 Oil Cleanliness ISO 4406 (c) >20/18/15 20/18/14 21/19/14 21/18/14	Sodium	ppm	ASTM D5185m		<1	0	3
opm Water ppm ASTM D6304 >1000 3267.4 3203.0 3306.1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 8711 15823 10453 Particles >6µm ASTM D7647 >2500 2043 3317 1917 Particles >14µm ASTM D7647 >320 104 115 93 Particles >14µm ASTM D7647 >30 24 9 21 Particles >21µm ASTM D7647 >20 1 2 Particles >38µm ASTM D7647 >4 0 0 0 Particles >71µm ASTM D7647 >4 0 0 0 0 Oil Cleanliness ISO 4406 (c) >20/18/15 20/18/14 21/19/14 21/18/14 FLUID DEGRADATION method limit/base current history1 history2	Potassium	ppm	ASTM D5185m	>20	<1	<1	<1
FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 8711 A 15823 10453 Particles >6µm ASTM D7647 >2500 2043 3317 1917 Particles >6µm ASTM D7647 >320 104 115 93 Particles >14µm ASTM D7647 >30 24 9 21 Particles >21µm ASTM D7647 >20 1 1 2 Particles >38µm ASTM D7647 >20 1 1 2 Particles >71µm ASTM D7647 >4 0 0 0 Dil Cleanliness ISO 4406 (c) >20/18/15 20/18/14 21/19/14 21/18/14 FLUID DEGRADATION method limit/base current history1 history2	Water	%	ASTM D6304	>0.1	<u> </u>	0.320	▲ 0.330
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Particles >6μm ASTM D7647 >2500 2043 ▲ 3317 1917 Particles >14μm ASTM D7647 >320 104 115 93 Particles >21μm ASTM D7647 >80 24 9 21 Particles >38μm ASTM D7647 >20 1 1 2 Particles >38μm ASTM D7647 >4 0 0 0 Particles >71μm ASTM D7647 >4 0 0 0 Dil Cleanliness ISO 4406 (c) >20/18/15 20/18/14 ≥1/19/14 ≥1/18/14 FLUID DEGRADATION method limit/base current history1 history2	FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >14µm ASTM D7647 >320 104 115 93 Particles >21µm ASTM D7647 >80 24 9 21 Particles >38µm ASTM D7647 >20 1 1 2 Particles >38µm ASTM D7647 >20 1 0 0 Particles >71µm ASTM D7647 >4 0 0 0 Dil Cleanliness ISO 4406 (c) >20/18/15 20/18/14 21/19/14 21/18/14 FLUID DEGRADATION method limit/base current history1 history2	Particles >4µm		ASTM D7647	>10000	8711	▲ 15823	10453
Particles >21µm ASTM D7647 >80 24 9 21 Particles >38µm ASTM D7647 >20 1 1 2 Particles >38µm ASTM D7647 >20 1 0 0 Particles >71µm ASTM D7647 >4 0 0 0 Oil Cleanliness ISO 4406 (c) >20/18/15 20/18/14 21/19/14 21/18/14 FLUID DEGRADATION method limit/base current history1 history2	Particles >6µm		ASTM D7647	>2500	2043	A 3317	1917
Particles >38μm ASTM D7647 >20 1 1 2 Particles >71μm ASTM D7647 >4 0 0 0 Dil Cleanliness ISO 4406 (c) >20/18/15 20/18/14 21/19/14 21/18/14 FLUID DEGRADATION method limit/base current history1 history2	Particles >14µm		ASTM D7647	>320	104	115	93
Particles >71μm ASTM D7647 >4 0 0 0 Dil Cleanliness ISO 4406 (c) >20/18/15 20/18/14 21/19/14 21/18/14 FLUID DEGRADATION method limit/base current history1 history2	Particles >21µm		ASTM D7647	>80	24	9	21
Dil Cleanliness ISO 4406 (c) >20/18/15 20/18/14 21/19/14 21/18/14 FLUID DEGRADATION method limit/base current history1 history2	Particles >38µm		ASTM D7647	>20	1	1	2
FLUID DEGRADATION method limit/base current history1 history2	Particles >71µm		ASTM D7647	>4	0	0	0
	Oil Cleanliness		ISO 4406 (c)	>20/18/15	20/18/14	▲ 21/19/14	▲ 21/18/14
Acid Number (AN) mg KOH/g ASTM D8045 0.51 0.58 0.384 0.512	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045	0.51	0.58	0.384	0.512

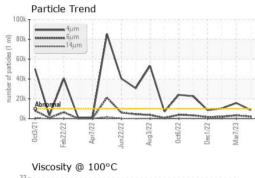
Contact/Location: DUSTIN FRY - GARROW

TULCO WEATERK

OIL ANALYSIS REPORT







VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	100	113	112	112
Visc @ 100°C	cSt	ASTM D445	11.2	19.3	19.18	19.6
Viscosity Index (VI)	Scale	ASTM D2270	97	193	193	198
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						

Bottom



