

## **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	<b>A</b> 0.326	<b>0.320</b>	<b>0.330</b>		
ppm Water	ppm	ASTM D6304	>1000	<b>A</b> 3267.4	<b>▲</b> 3203.0	<b>A</b> 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

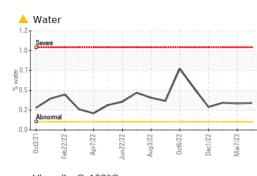
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

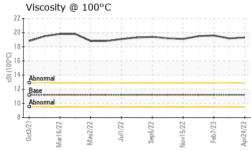
Sample Date         Info         24 Apr 2023         07 Mar 2023         07 Feb 2023           Vachine Age         hrs         Client Info         0         0         0           Dil Age         hrs         Client Info         0         0         0           Dil Changed         Client Info         N/A         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 <b>3188</b> 3098         3058           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >50 <b>30</b> 39         47           Sodium         ppm         ASTM D5185m         >50 <b>30</b> 39         47           Sodium         ppm         ASTM D5185m         >50 <b>30</b> 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 <b>3267.4</b> ▲ 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 <b>3267.4</b> 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>	<b>0.320</b>	▲ 0.330
Particles >4μm       ASTM D7647       >10000       8711       A 15823       10453         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       21/19/14       21/18/14         FLUID DEGRADATION       method       limit/base       current       history1       history2	opm Water	ppm	ASTM D6304	>1000	<b>A</b> 3267.4	▲ 3203.0	▲ 3306.1
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	<b>A</b> 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 <ul> <li>21/19/14</li> <li>21/18/14</li> </ul> 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

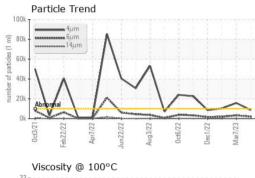
Contact/Location: DUSTIN FRY - GARROW

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



