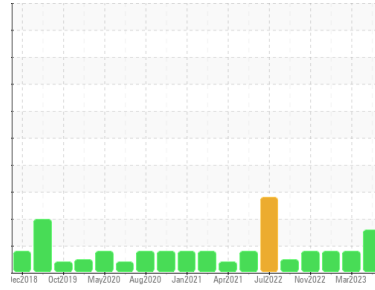
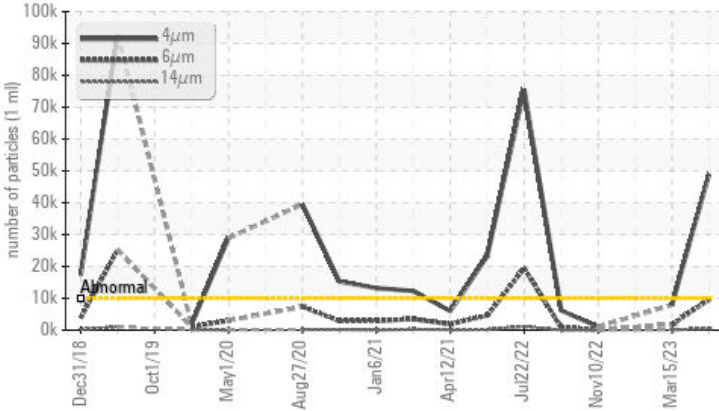


Machine Id  
**BOSS XTO-BIG EDDY DT 28 TOWER (S/N 116865)**  
 Component  
**Compressor**  
 Fluid  
**TULCO LUBSOIL LPG WS 150 (7 GAL)**



## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

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

## PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ATTENTION	ABNORMAL
Particles >4µm	ASTM D7647	>10000	▲ 48920	7953	---
Particles >6µm	ASTM D7647	>1300	▲ 9611	▲ 1781	---
Particles >14µm	ASTM D7647	>320	▲ 419	83	---
Oil Cleanliness	ISO 4406 (c)	>20/17/15	▲ 23/20/16	▲ 20/18/14	---

**Customer Id:** RICHOB  
**Sample No.:** TO90003365  
**Lab Number:** 05867327  
**Test Package:** IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Doug Bogart +1 (800)237-1369 x4016  
[dougb@wearcheckusa.com](mailto:dougb@wearcheckusa.com)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	MISSED	Nov 30 2023	?	We recommend you service the filters on this component.

## HISTORICAL DIAGNOSIS

### 15 Mar 2023 Diag: Don Baldrige

#### ISO



No corrective action is recommended at this time. 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. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



### 22 Dec 2022 Diag: Don Baldrige

#### SEDIMENT



We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. There is a moderate amount of visible silt present in the sample. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



### 10 Nov 2022 Diag: Angela Borella

#### VISCOSITY

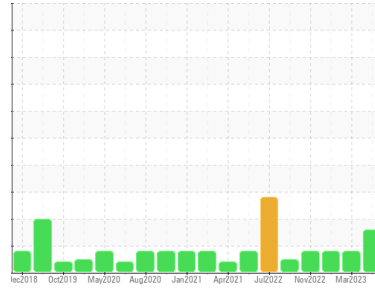


Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. The oil viscosity is lower than normal. The AN level is acceptable for this fluid.

[view report](#)



Machine Id  
**BOSS XTO-BIG EDDY DT 28 TOWER (S/N 116865)**  
 Component  
**Compressor**  
 Fluid  
**TULCO LUBSOIL LPG WS 150 (7 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		<b>TO90003365</b>	TO90002832	TO90002625
Sample Date	Client Info		<b>10 May 2023</b>	15 Mar 2023	22 Dec 2022
Machine Age	hrs	Client Info	<b>22898</b>	22898	24735
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	ATTENTION	ABNORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>3</b>	6	4
Chromium	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	<b>&lt;1</b>	0	3
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >25	<b>0</b>	0	<1
Lead	ppm	ASTM D5185m >25	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >50	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m >15	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	1
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m 0	<b>2</b>	<1	<1
Calcium	ppm	ASTM D5185m 0	<b>4</b>	3	3
Phosphorus	ppm	ASTM D5185m 0	<b>205</b>	506	326
Zinc	ppm	ASTM D5185m 0	<b>0</b>	<1	2
Sulfur	ppm	ASTM D5185m 0	<b>112</b>	58	70

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>&lt;1</b>	<1	<1
Sodium	ppm	ASTM D5185m	<b>6</b>	11	12
Potassium	ppm	ASTM D5185m >20	<b>2</b>	1	<1
Water	%	ASTM D6304 >2.26	<b>0.709</b>	0.840	0.483
ppm Water	ppm	ASTM D6304 >22600	<b>7090</b>	8400	4830

## FLUID CLEANLINESS

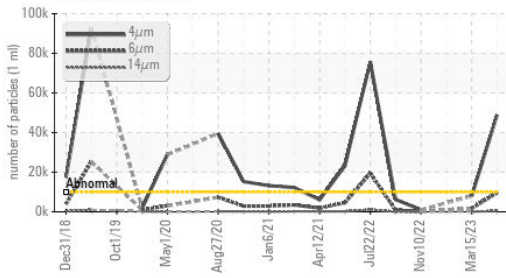
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	<b>▲ 48920</b>	7953	---
Particles >6µm	ASTM D7647	>1300	<b>▲ 9611</b>	▲ 1781	---
Particles >14µm	ASTM D7647	>320	<b>▲ 419</b>	83	---
Particles >21µm	ASTM D7647	>80	<b>63</b>	18	---
Particles >38µm	ASTM D7647	>20	<b>3</b>	1	---
Particles >71µm	ASTM D7647	>4	<b>0</b>	0	---
Oil Cleanliness	ISO 4406 (c)	>20/17/15	<b>▲ 23/20/16</b>	▲ 20/18/14	---

## FLUID DEGRADATION

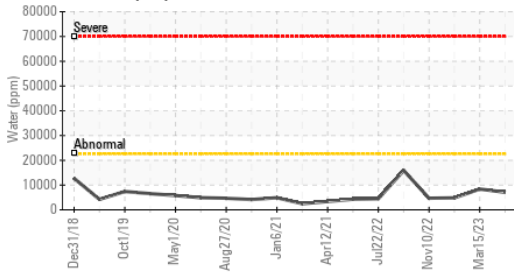
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.49</b>	0.23	0.33

# OIL ANALYSIS REPORT

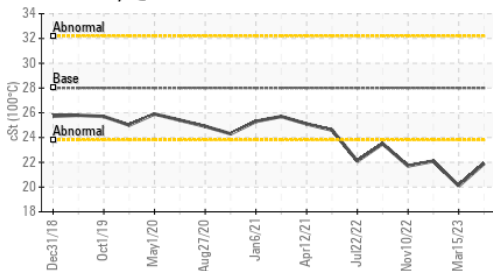
## ▲ Particle Trend



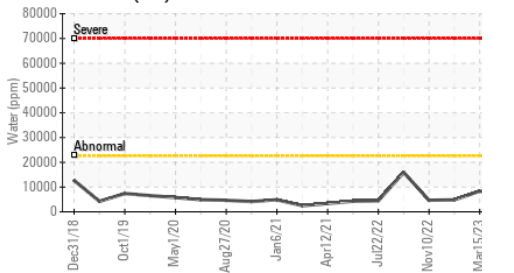
## Water (KF)



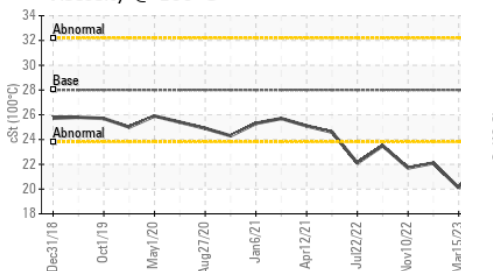
## Viscosity @ 100°C



## Water (KF)



## Viscosity @ 100°C



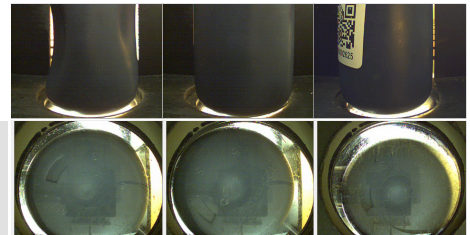
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	▲ MODER
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>2.26	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	151	108	120
Visc @ 100°C	cSt	ASTM D445	28	20.1	22.1
Viscosity Index (VI)	Scale	ASTM D2270	224	211	213

SAMPLE IMAGES	method	limit/base	current	history1	history2
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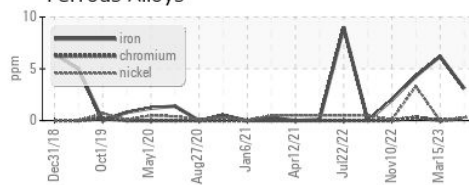
Color

Bottom

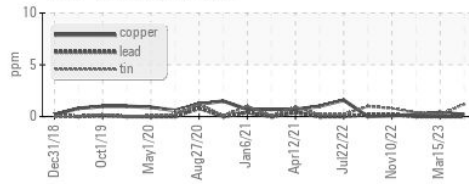


## GRAPHS

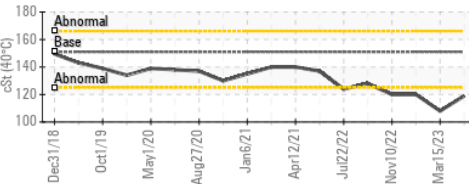
### Ferrous Alloys



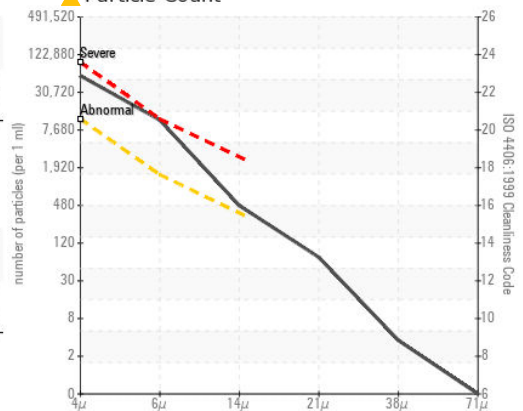
### Non-ferrous Metals



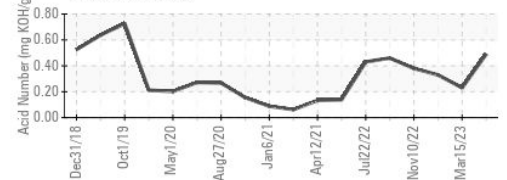
### Viscosity @ 40°C



### ▲ Particle Count



### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO90003365 **Received** : 07 Jun 2023  
**Lab Number** : 05867327 **Diagnosed** : 10 Jun 2023  
**Unique Number** : 10507111 **Diagnostician** : Doug Bogart  
**Test Package** : IND 2 ( Additional Tests: KF, KV100, PrtCount, VI )

**RICHARDS ENERGY COMPRESSION**  
 1629 WEST BENDER  
 HOBBS, NM  
 US 88240  
 Contact: BILL RICHARDSON  
 richardsenergy@windstream.net

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)

T:  
F: