



Machine Id
TEREX DIGGER DERRICK 309 (S/N 2150754721)
Component
Hydraulic System
Fluid
CASTROL AERIAL HYD FLUID 22 (50 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ST42683	ST42797	ST40668
Sample Date		Client Info		21 Aug 2023	30 Aug 2022	25 Aug 2021
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ATTENTION	ABNORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	2	4	4
Chromium	ppm	ASTM D5185m	>10	0	0	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	<1	<1
Aluminum	ppm	ASTM D5185m	>10	0	<1	1
Lead	ppm	ASTM D5185m	>10	0	1	<1
Copper	ppm	ASTM D5185m	>75	9	10	9
Tin	ppm	ASTM D5185m	>10	0	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

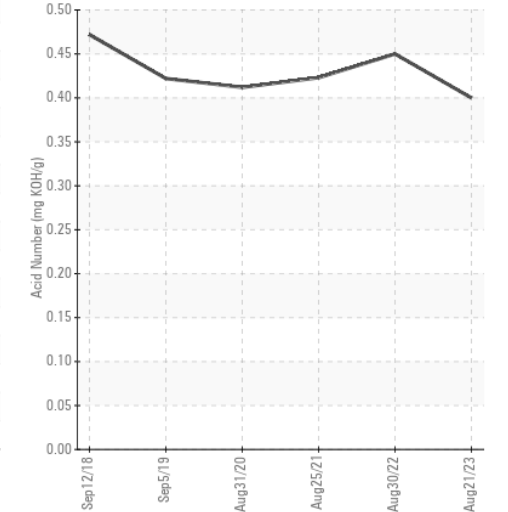
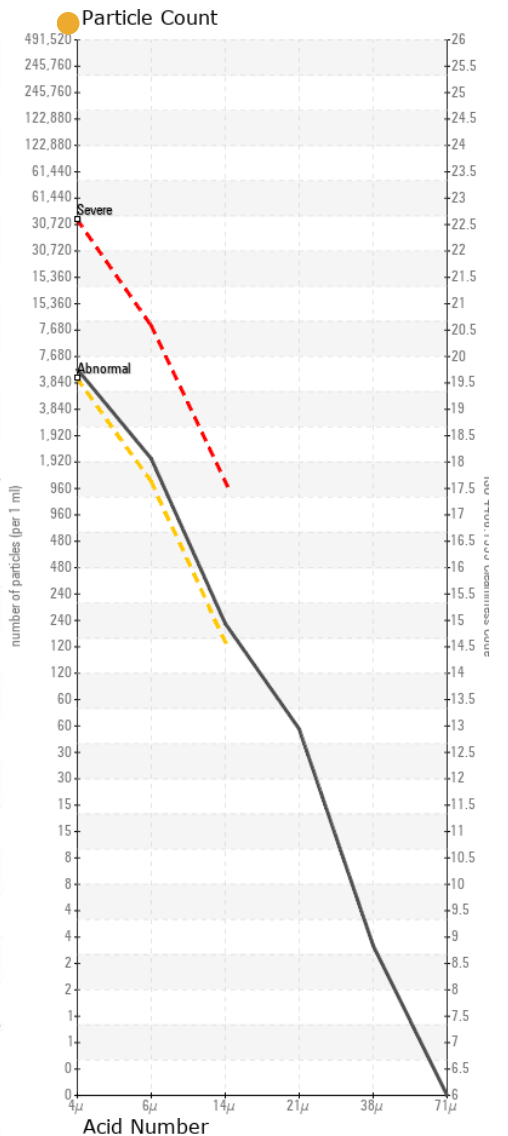
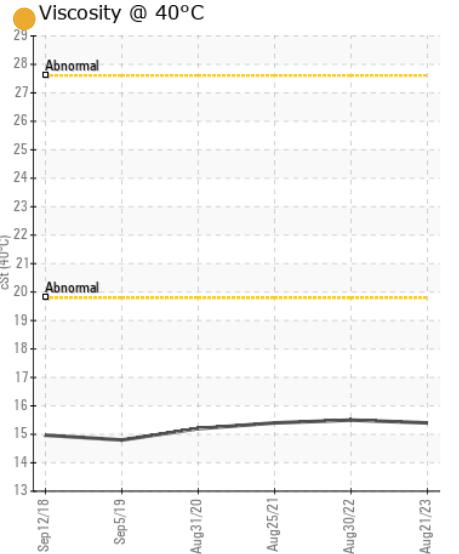
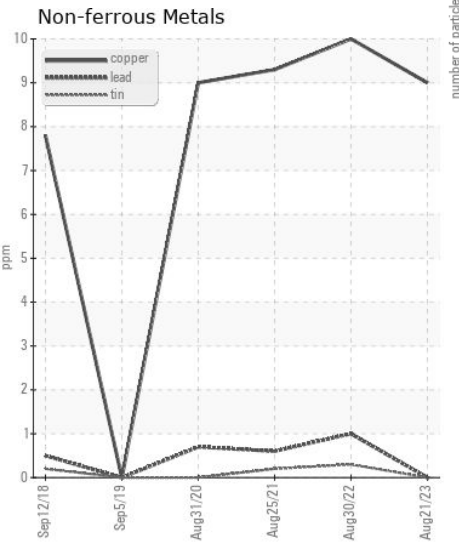
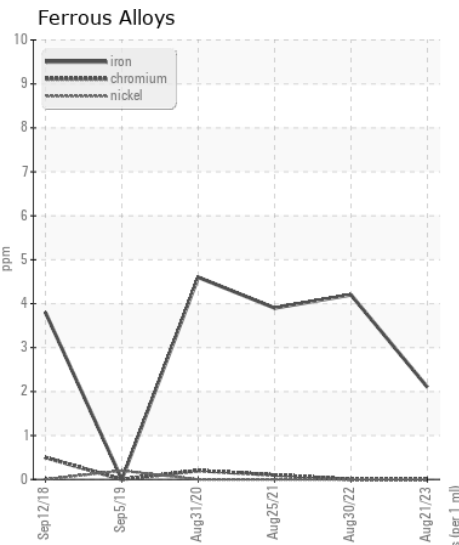
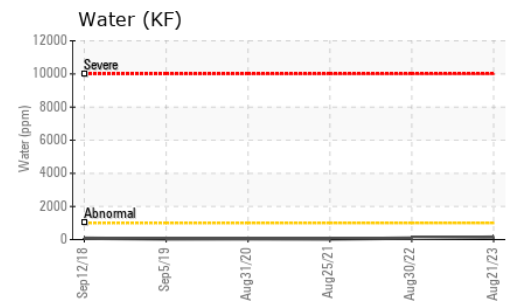
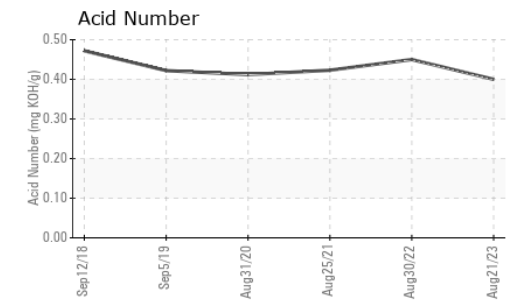
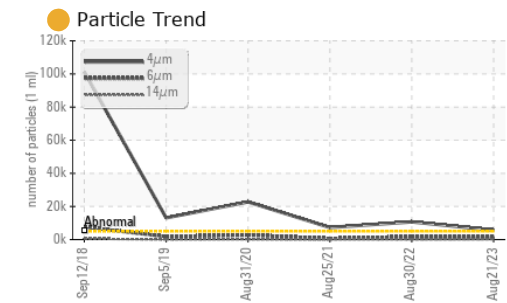
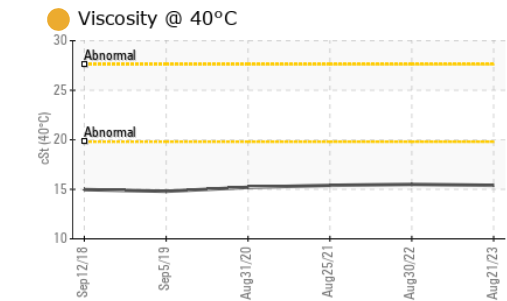
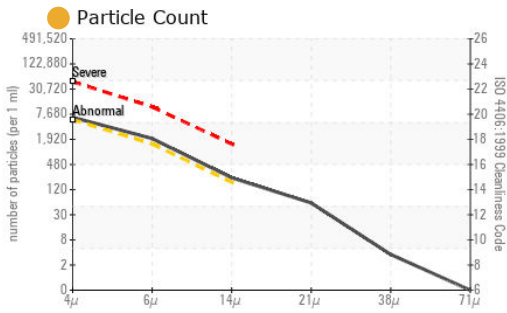
There is a moderate amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>20	2	2	3
Potassium	ppm	ASTM D5185m	>20	2	2	0
Water	%	ASTM D6304	>0.1	0.014	0.009	0.003
ppm Water	ppm	ASTM D6304	>1000	148.0	90.0	33.2
Particles >4µm		ASTM D7647	>5000	5653	10698	7286
Particles >6µm		ASTM D7647	>1300	1755	1792	583
Particles >14µm		ASTM D7647	>160	203	95	50
Particles >21µm		ASTM D7647	>40	51	20	7
Particles >38µm		ASTM D7647	>10	3	1	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	20/18/15	21/18/14	20/16/13
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

FLUID CONDITION

The oil viscosity is lower than normal. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		<1	0	<1
Boron	ppm	ASTM D5185m		0	2	0
Barium	ppm	ASTM D5185m		0	2	0
Molybdenum	ppm	ASTM D5185m		0	<1	<1
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		0	2	2
Calcium	ppm	ASTM D5185m		38	48	58
Phosphorus	ppm	ASTM D5185m		403	409	422
Zinc	ppm	ASTM D5185m		373	398	427
Sulfur	ppm	ASTM D5185m		979	925	859
Acid Number (AN)	mg KOH/g	ASTM D8045		0.40	0.45	0.423
Visc @ 40°C	cSt	ASTM D445		15.4	15.5	15.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : ST42683

Lab Number : 05955872

Unique Number : 10657085

Test Package : IND 2 (Additional Tests: KF)

Received : 19 Sep 2023

Tested : 21 Sep 2023

Diagnosed : 21 Sep 2023 - Jonathan Hester

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)

COBB EMC

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MARIETTA, GA

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