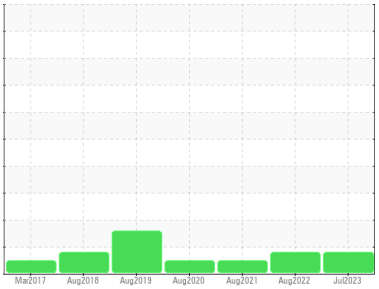
STAUFF
FILTRATION TECHNOLOGY

# PROBLEM SUMMARY

Sample Rating Trend

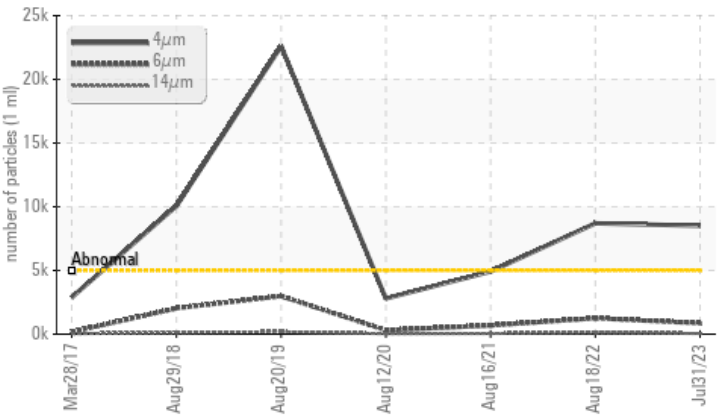



ISO

Machine Id
## ALTEC 325
Component
**Hydraulic System**
Fluid
**CASTROL AERIAL HYD FLUID 22 (30 GAL)**

## COMPONENT CONDITION SUMMARY

Particle Trend




## 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.

## PROBLEMATIC TEST RESULTS

| | | | | ATTENTION | ATTENTION | NORMAL |
|---|---|---|---|---|---|---|
| Sample Status | | | | **ATTENTION** | ATTENTION | NORMAL |
| Particles >4µm | | ASTM D7647 | >5000 | ▲ **8507** | ▲ 8700 | 4915 |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | ▲ **20/17/13** | ▲ 20/17/14 | 19/17/13 |

**Customer Id:** COBMARGA
**Sample No.:** ST44065
**Lab Number:** 05926752
**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

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

## RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---|---|---|---|---|
| Contact Required | --- | --- | ? | Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue. |

## HISTORICAL DIAGNOSIS

**18 Aug 2022 Diag: Angela Borella**

ISO

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 acceptable for the time in service.

view report

**16 Aug 2021 Diag: Angela Borella**

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

**12 Aug 2020 Diag: Jonathan Hester**

NORMAL

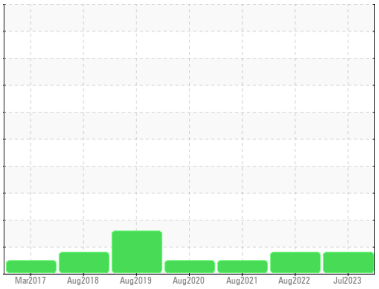
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

STAUFF FILTRATION TECHNOLOGY

# OIL ANALYSIS REPORT

Sample Rating Trend




ISO

Machine Id
## ALTEC 325
Component
**Hydraulic System**
Fluid
**CASTROL AERIAL HYD FLUID 22 (30 GAL)**

## DIAGNOSIS

**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.

**Wear**
All component wear rates are normal.

**Contamination**
There is a moderate amount of silt (particulates < 6 microns in size) present in the oil.

**Fluid Condition**
The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **ST44065** | ST42222 | ST40673 |
| Sample Date | | Client Info | | **31 Jul 2023** | 18 Aug 2022 | 16 Aug 2021 |
| Machine Age | hrs | Client Info | | **0** | 0 | 0 |
| Oil Age | hrs | Client Info | | **0** | 0 | 0 |
| Oil Changed | | Client Info | | **N/A** | N/A | N/A |
| Sample Status | | | | **ATTENTION** | ATTENTION | NORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >20 | **1** | 1 | 1 |
| Chromium | ppm | ASTM D5185m | >20 | **0** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >20 | **0** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Silver | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | **0** | 0 | 0 |
| Lead | ppm | ASTM D5185m | >20 | **0** | 0 | 1 |
| Copper | ppm | ASTM D5185m | >20 | **9** | 9 | 6 |
| Tin | ppm | ASTM D5185m | >20 | **<1** | 0 | 3 |
| Antimony | ppm | ASTM D5185m | | **---** | --- | 0 |
| Vanadium | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **<1** | 0 | <1 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **0** | 0 | <1 |
| Barium | ppm | ASTM D5185m | | **0** | <1 | 0 |
| Molybdenum | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | | **1** | 0 | 0 |
| Calcium | ppm | ASTM D5185m | | **25** | 27 | 25 |
| Phosphorus | ppm | ASTM D5185m | | **405** | 375 | 207 |
| Zinc | ppm | ASTM D5185m | | **395** | 376 | 308 |
| Sulfur | ppm | ASTM D5185m | | **1164** | 868 | 594 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >15 | **1** | <1 | <1 |
| Sodium | ppm | ASTM D5185m | | **2** | <1 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | **2** | 0 | 0 |
| Water | % | ASTM D6304 | >0.05 | **0.001** | 0.004 | 0.005 |
| ppm Water | ppm | ASTM D6304 | >500 | **11.7** | 46.2 | 58.8 |

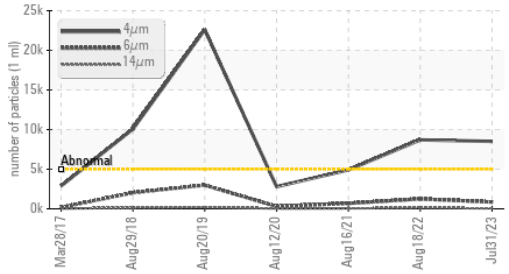
| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >5000 | ▲ **8507** | ▲ 8700 | 4915 |
| Particles >6µm | | ASTM D7647 | >1300 | **856** | 1250 | 689 |
| Particles >14µm | | ASTM D7647 | >160 | **49** | 118 | 51 |
| Particles >21µm | | ASTM D7647 | >40 | **13** | 41 | 10 |
| Particles >38µm | | ASTM D7647 | >10 | **1** | 3 | 0 |
| Particles >71µm | | ASTM D7647 | >3 | **0** | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | ▲ **20/17/13** | ▲ 20/17/14 | 19/17/13 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **0.41** | 0.36 | 0.340 |

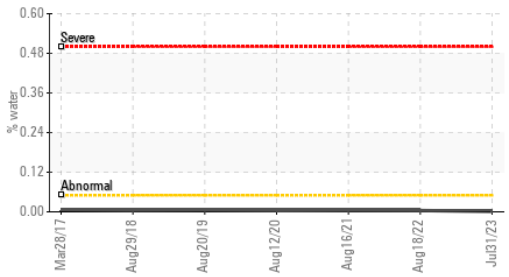
STAUFF FILTRATION TECHNOLOGY

# OIL ANALYSIS REPORT

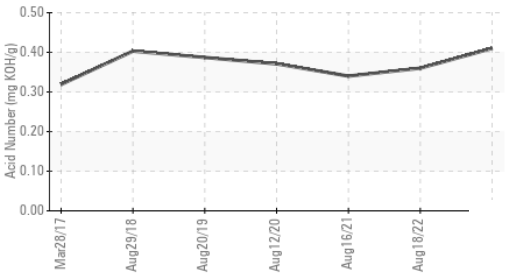
Particle Trend



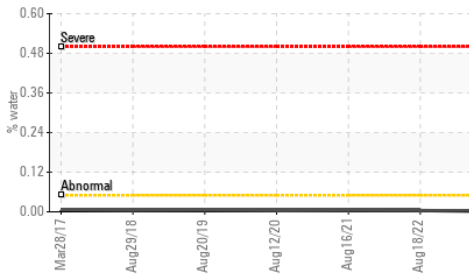

Water



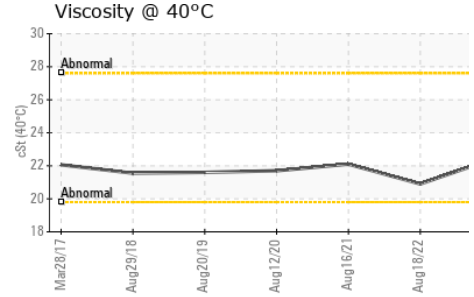

Acid Number




Water

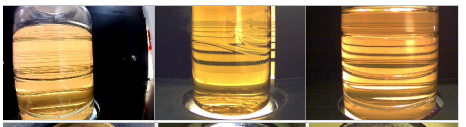
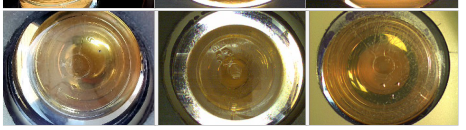



Viscosity @ 40°C



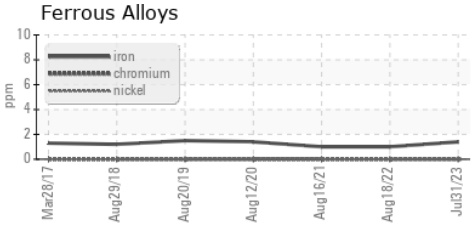

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| 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 | >0.05 | **NEG** | NEG | NEG |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | | **22.4** | 20.9 | 22.1 |

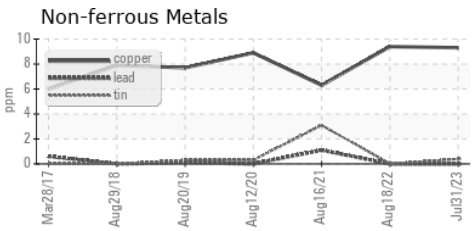
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | | |
| Bottom | | |  | | |

## GRAPHS

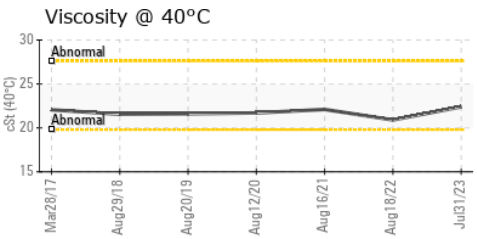
Ferrous Alloys



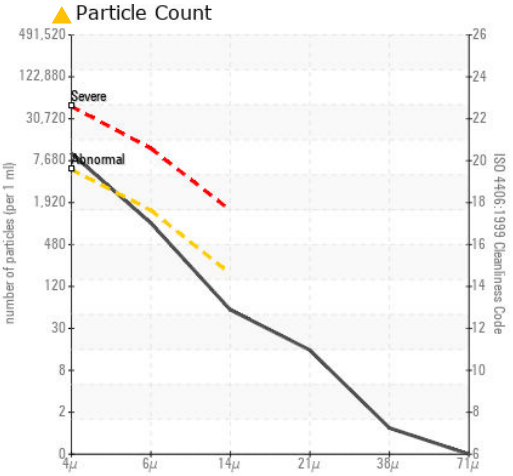

Non-ferrous Metals



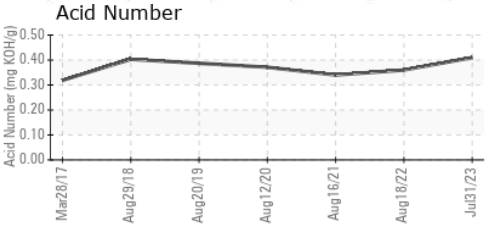

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : ST44065 **Received** : 16 Aug 2023
**Lab Number** : 05926752 **Diagnosed** : 17 Aug 2023
**Unique Number** : 10606699 **Diagnostician** : Doug Bogart
**Test Package** : IND 2 ( Additional Tests: KF )

*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)*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