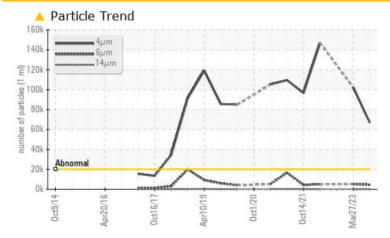


PROBLEM SUMMARY

Area ACRYLIC Machine Id RX 4 - AGITATOR Component Gearbox Fluid SHELL OMALA S2 G 220 (7 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

| | 56 | ample Rating Trend | | | | | | | | | | ISO | | | | | | | | | | | | | |
|---|----|--------------------|--|----|--|---|---|---|--|---|---|-----|--|---|---|---|---|---|--|--|--|--|--|--|--|
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| PROBLEMATIC TEST RESULTS | | | | | | | | | | | | |
|--------------------------|-------------------|--------------------|----------------|----------|--|--|--|--|--|--|--|--|
| Sample Status | | ABNORMAL | ABNORMAL | ABNORMAL | | | | | | | | |
| Particles >4µm | ASTM D7647 >200 | 000 🔺 66993 | 1 02353 | | | | | | | | | |
| Oil Cleanliness | ISO 4406 (c) >21/ | 19/16 🔺 23/19/14 | 🔺 24/20/13 | | | | | | | | | |

Customer Id: LUBGAS Sample No.: WC0855212 Lab Number: 05965332 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 <u>jhester@wearcheckusa.com</u>

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

27 Mar 2023 Diag: Doug Bogart



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 high 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

27 Sep 2022 Diag: Don Baldridge





We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition. There is too much water present in this sample to perform a particle count.All component wear rates are normal. Appearance is milky. There is a high concentration of water present in the oil. Free water present. The AN level is acceptable for this fluid.



view report



28 Mar 2022 Diag: Jonathan Hester

We advise that you check for the source of water entry. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of silt (particulates < 6 microns in size) present in the oil. There is a moderate 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.





OIL ANALYSIS REPORT

Area ACRYLIC Machine Id RX 4 - AGITATOR Component

Gearbox Fluid

SHELL OMALA S2 G 220 (7 GAL)

DIAGNOSIS

A Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

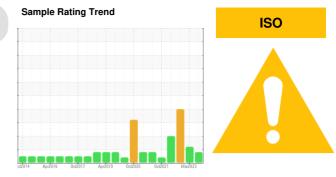
All component wear rates are normal.

Contamination

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

Fluid Condition

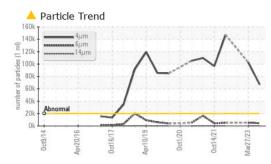
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

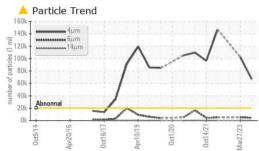


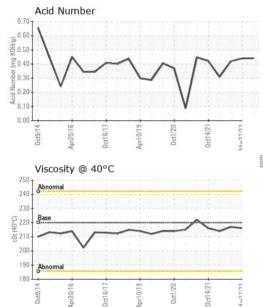
| | MATION | method | limit/base | current | history1 | history2 |
|---|---|---|---|--|---|---|
| Sample Number | | Client Info | | WC0855212 | WC0802649 | WC0741883 |
| Sample Date | | Client Info | | 22 Sep 2023 | 27 Mar 2023 | 27 Sep 2022 |
| Machine Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | | 0 | 0 | 36512 |
| Oil Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | ABNORMAL | ABNORMAL | ABNORMAL |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >200 | 137 | 134 | 146 |
| Chromium | ppm | ASTM D5185m | >15 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >15 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | <1 | 0 | 1 |
| Lead | ppm | ASTM D5185m | >100 | 0 | 0 | 6 |
| Copper | ppm | ASTM D5185m | >200 | <1 | 0 | 4 |
| Tin | ppm | ASTM D5185m | >25 | 0 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 4.4 | 0 | 1 | <1 |
| Barium | ppm | ASTM D5185m | 0.0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | <1 | 0 |
| Manganese | ppm | ASTM D5185m | | 2 | 2 | 2 |
| Magnesium | ppm | ASTM D5185m | 0 | 12 | 12 | 8 |
| Calcium | ppm | ASTM D5185m | 0 | 6 | 8 | 13 |
| | | | | | | |
| Phosphorus | ppm | ASTM D5185m | 215 | 299 | 343 | 285 |
| | ppm ppm | ASTM D5185m ASTM D5185m | | 299 3 | 343 0 | 285 19 |
| Zinc | | | | | | |
| | ppm ppm | ASTM D5185m | 0 | 3 | 0 | 19 |
| Zinc Sulfur | ppm ppm | ASTM D5185m ASTM D5185m | 0 7039 limit/base | 3 11317 | 0 15428 | 19 13051 |
| Zinc Sulfur CONTAMINANTS | ppm ppm | ASTM D5185m ASTM D5185m method | 0 7039 limit/base | 3 11317 current | 0 15428 history1 | 19 13051 history2 |
| Zinc Sulfur CONTAMINANTS Silicon | ppm ppm | ASTM D5185m ASTM D5185m method ASTM D5185m | 0 7039 limit/base >50 | 3 11317 current 2 | 0 15428 history1 2 | 19 13051 history2 3 |
| Zinc Sulfur CONTAMINANTS Silicon Sodium | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m | 0 7039 limit/base >50 | 3 11317 current 2 2 2 | 0 15428 history1 2 1 | 19 13051 history2 3 0 |
| Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m | 0 7039 limit/base >50 >20 | 3 11317 current 2 2 0 | 0 15428 history1 2 1 2 | 19 13051 history2 3 0 0 |
| Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m method | 0 7039 limit/base >50 >20 limit/base | 3 11317 current 2 2 0 current | 0 15428 history1 2 1 2 2 history1 | 19 13051 history2 3 0 0 0 history2 |
| Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D7647 | 0 7039 limit/base >50 >20 limit/base >20000 | 3 11317 current 2 2 2 0 current € 66993 | 0 15428 history1 2 1 2 history1 ▲ 102353 | 19 13051 history2 3 0 0 0 history2 |
| Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D7647 ASTM D7647 | 0 7039 limit/base >50 >20 limit/base >20000 >5000 >5000 >640 | 3 11317 current 2 2 2 0 current 66993 4497 | 0 15428 <u>history1</u> 2 1 2 <u>history1</u> ▲ 102353 ▲ 5192 | 19 13051 history2 3 0 0 0 history2 |
| Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 | 0 7039 limit/base >50 >20 limit/base >20000 >5000 >5000 >640 | 3 11317 current 2 2 2 0 current 66993 4497 138 | 0 15428 history1 2 1 2 history1 2 1 2 history1 3 1 2 5 192 67 | 19 13051 history2 3 0 0 history2 |
| Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 | 0 7039 limit/base >50 >20 limit/base >20000 >5000 >640 >160 | 3 11317 current 2 2 2 0 current ▲ 66993 4497 138 28 | 0 15428 history1 2 1 2 1 2 history1 ▲ 102353 ▲ 5192 67 11 | 19 13051 history2 3 0 0 history2 |
| Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 | 0 7039 limit/base >50 >20 limit/base >20000 >5000 >5000 >640 >160 >40 | 3 11317 current 2 2 2 0 current ▲ 66993 4497 138 28 0 | 0 15428 history1 2 1 2 history1 ▲ 102353 ▲ 5192 67 11 0 | 19 13051 history2 3 0 0 history2 |
| Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm | ppm ppm ppm ppm ppm JESS | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 | 0 7039 Iimit/base >50 >20 Iimit/base >20000 >5000 >5000 >640 >160 >40 >10 | 3 11317 current 2 2 0 current ▲ 66993 4497 138 28 0 0 0 | 0 15428 history1 2 1 2 1 2 history1 ▲ 102353 ▲ 5192 67 11 0 0 | 19 13051 history2 3 0 0 0 history2 |



OIL ANALYSIS REPORT

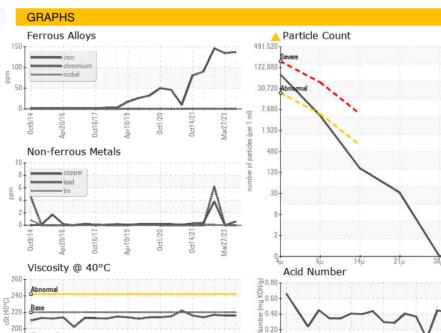






| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|-------------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE | LIGHT |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | 🔺 MILKY |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | ▲ 0.2% |
| Free Water | scalar | *Visual | | NEG | NEG | 2 .0 |
| FLUID PROPERT | IES | method | limit/base | current | history1 | history2 |
| Visc @ 40°C | cSt | ASTM D445 | 220 | 216 | 216 | 217 |
| SAMPLE IMAGES | S | method | limit/base | current | history1 | history2 |
| Color | | | | | | |
| | | | | | 100 | |

Bottom



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Apr20/16



Test Package : IND 2 (Additional Tests: PrtCount) Certificate L2367 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)

Oct16/17

Apr10/19

0ct1/20 -

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

Diagnostician

Received

Diagnosed

Oct14/21.

Mar27/23 -

: 29 Sep 2023

: 04 Oct 2023

: Jonathan Hester

Abn

nr20/

: WC0855212

: 05965332

: 10671883

0ct9/

180

Laboratory

Sample No.

Lab Number

Unique Number

Contact/Location: TIMOTHY DAVIS - LUBGAS

0ct1/20 -

LUBRIZOL ADVANCED MATERIALS INC

Apr10/19

0ct16/17

0ct14/21

207 TELEGRAPH DR

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Mar27/23

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2 Code