

PROBLEM SUMMARY

Sample Rating Trend





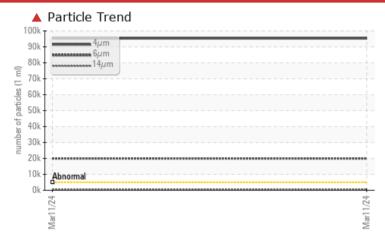


ES0-1

Component **Auxiliary Hydraulic System**

AW HYDRAULIC OIL ISO 46 (--- LTR)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 46. Please confirm.

NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Customer Id: AMCMIS Sample No.: WC0914588 Lab Number: 02621490 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Wes Davis +1 905-569-8600 x223 wesd@wearcheck.ca

To change component or sample information: Gloria Gonzalez +1 (289)291-4643 x4643 gloria.gonzalez@wearcheck.com

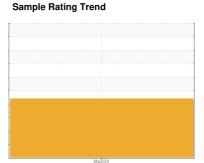
| PROBLEMATIC TEST RESULTS | | | | | | | | | |
|--------------------------|--------------|-----------|-------------------|--|--|--|--|--|--|
| Sample Status | | | SEVERE | | | | | | |
| Particles >4μm | ASTM D7647 | >5000 | 95325 | | | | | | |
| Particles >6µm | ASTM D7647 | >1300 | 19956 | | | | | | |
| Particles >14µm | ASTM D7647 | >160 | ^ 666 | | | | | | |
| Particles >21µm | ASTM D7647 | >40 | <u> </u> | | | | | | |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14 | 4 24/21/17 | | | | | | |

| RECOMMENDED ACTIONS | | | | | | | |
|----------------------|--------|------|---------|---|--|--|--|
| Action | Status | Date | Done By | Description | | | |
| Change Filter | | | ? | We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. | | | |
| Resample | | | ? | Resample in 30-45 days to monitor this situation. | | | |
| Alert | | | ? | Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. | | | |
| Information Required | | | ? | NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. | | | |
| Check Breathers | | | ? | The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. | | | |
| Check Dirt Access | | | ? | We advise that you check all areas where contaminants can enter the system. | | | |
| Filter Fluid | | | ? | We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. | | | |

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT





DIAGNOSIS

Machine Id **ES0-1** Component

Recommendation

Auxiliary Hydraulic System

AW HYDRAULIC OIL ISO 46 (--- LTR)

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use offline filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 46. Please confirm. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

All component wear rates are normal.

Contamination

There is a high amount of particulates (2 to 100 microns in size) present in the oil.

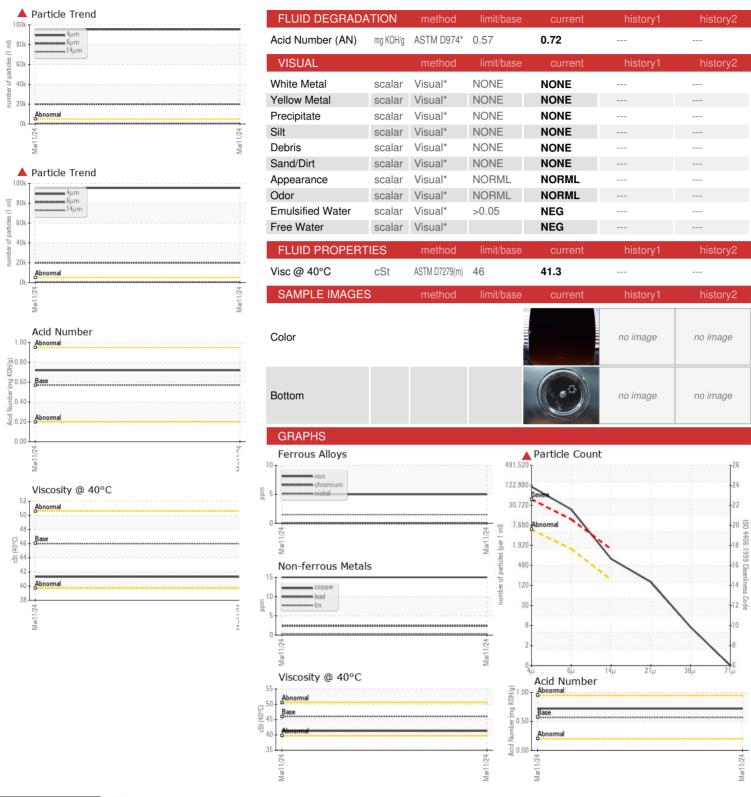
Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

| | | | | Mar2024 | | |
|---|---|---|--|--|------------------------------|------------------------------|
| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | WC0914588 | | |
| Sample Date | | Client Info | | 11 Mar 2024 | | |
| Machine Age | hrs | Client Info | | 0 | | |
| Oil Age | hrs | Client Info | | 0 | | |
| Oil Changed | | Client Info | | N/A | | |
| Sample Status | | | | SEVERE | | |
| CONTAMINATION | ١ | method | limit/base | current | history1 | history2 |
| Water | | WC Method | >0.05 | NEG | | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185(m) | >20 | 5 | | |
| Chromium | ppm | ASTM D5185(m) | >20 | 0 | | |
| Nickel | ppm | ASTM D5185(m) | >20 | 2 | | |
| Titanium | ppm | ASTM D5185(m) | | 0 | | |
| Silver | ppm | ASTM D5185(m) | | 0 | | |
| Aluminum | ppm | ASTM D5185(m) | >20 | <1 | | |
| Lead | ppm | ASTM D5185(m) | >20 | 2 | | |
| Copper | ppm | ASTM D5185(m) | >20 | 15 | | |
| Tin | ppm | ASTM D5185(m) | >20 | <1 | | |
| Antimony | ppm | ASTM D5185(m) | | 0 | | |
| Vanadium | ppm | ASTM D5185(m) | | 0 | | |
| Beryllium | ppm | ASTM D5185(m) | | 0 | | |
| Cadmium | ppm | ASTM D5185(m) | | 0 | | |
| | | | | | | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| ADDITIVES Boron | ppm | method ASTM D5185(m) | limit/base | current | history1 | history2 |
| | ppm | | | | • | · |
| Boron | | ASTM D5185(m) | 5 | <1 | | |
| Boron Barium | ppm | ASTM D5185(m) ASTM D5185(m) | 5 5 | <1 1 | | |
| Boron Barium Molybdenum | ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 5 5 | <1 1 <1 | | |
| Boron Barium Molybdenum Manganese | ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 5 5 5 | <1 1 <1 0 | | |
| Boron Barium Molybdenum Manganese Magnesium | ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 5 5 5 25 | <1 1 <1 0 1 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium | ppm ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 5 5 5 25 200 | <1 1 <1 0 1 63 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus | ppm ppm ppm ppm ppm | ASTM D5185(m) | 5 5 5 25 200 300 | <1 1 <1 0 1 63 346 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm ppm ppm | ASTM D5185(m) | 5 5 5 25 200 300 370 | <1 1 <1 0 1 63 346 382 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) | 5 5 5 25 200 300 370 | <1 1 <1 0 1 63 346 382 1217 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) | 5 5 5 25 200 300 370 2500 | <1 1 <1 0 1 63 346 382 1217 <1 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) | 5 5 5 25 200 300 370 2500 | <1 1 <1 0 1 63 346 382 1217 <1 current | history1 | history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) | 5 5 5 25 200 300 370 2500 | <1 1 <1 0 1 63 346 382 1217 <1 current | history1 | history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) | 5 5 5 25 200 300 370 2500 limit/base >15 | <1 1 <1 0 1 63 346 382 1217 <1 current <1 | history1 | history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) MASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 5 5 5 25 200 300 370 2500 limit/base >15 >20 | <1 1 <1 0 1 63 346 382 1217 <1 current <1 1 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) METHOD ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 5 5 5 25 200 300 370 2500 limit/base >15 >20 | <1 1 1 <1 0 1 63 346 382 1217 <1 current <1 1 current | | history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) | 5 5 5 25 200 300 370 2500 limit/base >15 >20 limit/base >5000 | <1 1 1 <1 0 1 63 346 382 1217 <1 current <1 1 1 current | history1 history1 | history2 history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) | 5 5 5 25 200 300 370 2500 limit/base >15 >20 limit/base >5000 >1300 | <1 1 1 <1 0 1 63 346 382 1217 <1 current <1 1 current 4 95325 19956 | history1 history1 | history2 history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 | 5 5 5 25 200 300 370 2500 limit/base >15 >20 limit/base >5000 >1300 >160 | <1 1 1 <1 0 1 63 346 382 1217 <1 current <1 1 current ▲ 95325 ▲ 19956 ▲ 666 | history1 history1 | history2 history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) METHOD ASTM D5185(m) METHOD ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 | 5 5 5 25 200 300 370 2500 limit/base >15 >20 limit/base >5000 >1300 >160 >40 | <1 1 1 <1 0 1 63 346 382 1217 <1 current <1 1 current ▲ 95325 ▲ 19956 ▲ 666 ▲ 134 | history1 history1 | history2 history2 |



OIL ANALYSIS REPORT





CALA ISO 17025:2017 Accredited

Laboratory

Laboratory Sample No. Lab Number

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Amcor Rigid Plastics North America : WC0914588

: 02621490 Unique Number : 5746609

Received **Tested** Diagnosed

: 12 Mar 2024 : 13 Mar 2024 Test Package : IND 2 (Additional Tests: TAN Man)

: 13 Mar 2024 - Wes Davis

Mississauga, ON CA L4Z 4J3 Contact: Tino Pennino tino.pennino@amcor.com T: (905)624-2337

245 Britannia Road East

To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.

Validity of results and interpretation are based on the sample and information as supplied.

Contact/Location: Tino Pennino - AMCMIS

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