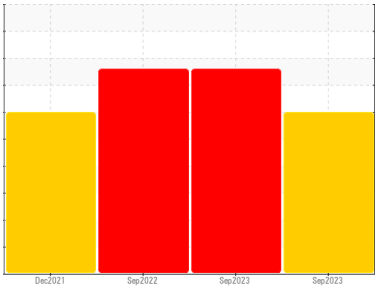
# PROBLEM SUMMARY

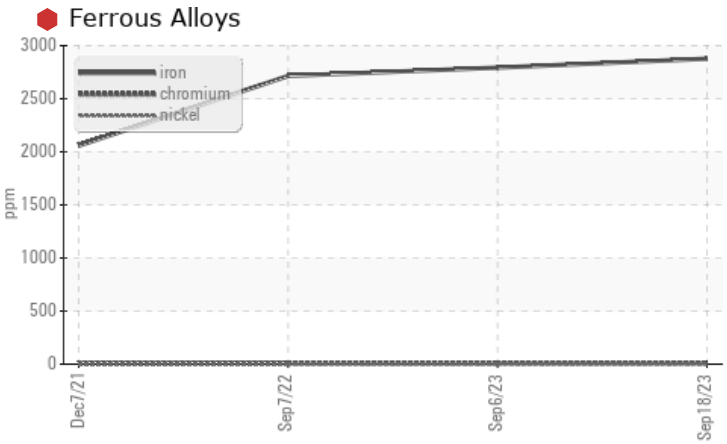
**Sample Rating Trend**




**WEAR**

Machine Id
**016-0114**
Component
**Front Differential**
Fluid
**SCHAEFFER SCHAEFFER 293 MOLY 75W90 (--- GAL)**

## COMPONENT CONDITION SUMMARY




## RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

| | | | | | | |
|---|---|---|---|---|---|---|
| Sample Status | | | | **SEVERE** | SEVERE | SEVERE |
| Iron | ppm | ASTM D5185m | >500 | **2877** | 2793 | 2715 |

**Customer Id:** AECCHATN
**Sample No.:** WC0815202
**Lab Number:** 05960827
**Test Package:** CONST

*To manage this report scan the QR code*

*To discuss the diagnosis or test data:*
Sean Felton +1 919-379-4092
sfelton@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 |
|---|---|---|---|---|
| Inspect Wear Source | --- | --- | ? | We advise that you inspect for the source(s) of wear. |
| Change Fluid | --- | --- | ? | We recommend that you drain the oil from the component if this has not already been done. |
| Resample | --- | --- | ? | We recommend an early resample to monitor this condition. |

## HISTORICAL DIAGNOSIS

**06 Sep 2023 Diag: Don Baldridge**

**WEAR**

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.Gear wear is indicated. There is a light concentration of water present in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

**view report**

**07 Sep 2022 Diag: Don Baldridge**

**WEAR**

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.Gear wear is indicated. There is a light concentration of water present in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

**view report**

**07 Dec 2021 Diag: Jonathan Hester**

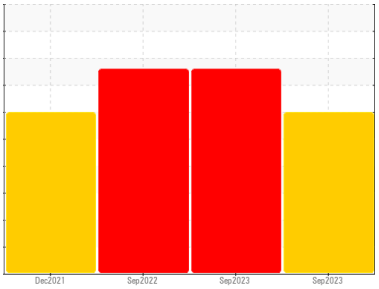
**WEAR**

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.Gear wear is indicated. There is no indication of any contamination in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

**view report**

# OIL ANALYSIS REPORT

Sample Rating Trend




WEAR

Machine Id
**016-0114**
Component
**Front Differential**
Fluid
**SCHAEFFER SCHAEFFER 293 MOLY 75W90 (--- GAL)**

## DIAGNOSIS

**Recommendation**
We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

**Wear**
Gear wear is indicated.

**Contamination**
There is no indication of any contamination in the oil.

**Fluid Condition**
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC0815202** | WC0815124 | WC0698193 |
| Sample Date | | Client Info | | **18 Sep 2023** | 06 Sep 2023 | 07 Sep 2022 |
| Machine Age | hrs | Client Info | | **11460** | 11388 | 8347 |
| Oil Age | hrs | Client Info | | **0** | 0 | 0 |
| Oil Changed | | Client Info | | **Not Changd** | Not Changd | Not Changd |
| Sample Status | | | | **SEVERE** | SEVERE | SEVERE |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >500 | **2877** | 2793 | 2715 |
| Chromium | ppm | ASTM D5185m | >10 | **8** | 8 | 8 |
| Nickel | ppm | ASTM D5185m | >10 | **2** | 1 | <1 |
| Titanium | ppm | ASTM D5185m | | **<1** | <1 | <1 |
| Silver | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | **4** | 4 | 3 |
| Lead | ppm | ASTM D5185m | >25 | **0** | 0 | 0 |
| Copper | ppm | ASTM D5185m | >100 | **3** | 4 | 3 |
| Tin | ppm | ASTM D5185m | >10 | **0** | <1 | <1 |
| Antimony | ppm | ASTM D5185m | >5 | **---** | --- | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **<1** | <1 | <1 |

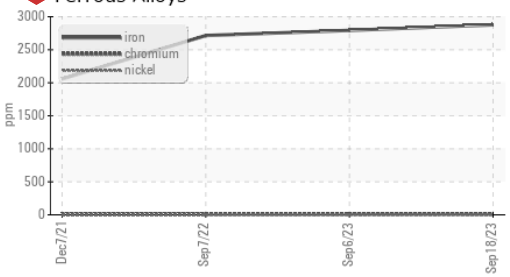
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **102** | 109 | 128 |
| Barium | ppm | ASTM D5185m | | **8** | 6 | <1 |
| Molybdenum | ppm | ASTM D5185m | | **349** | 337 | 278 |
| Manganese | ppm | ASTM D5185m | | **28** | 26 | 26 |
| Magnesium | ppm | ASTM D5185m | | **2** | 4 | 0 |
| Calcium | ppm | ASTM D5185m | | **111** | 122 | 106 |
| Phosphorus | ppm | ASTM D5185m | | **1323** | 1398 | 1433 |
| Zinc | ppm | ASTM D5185m | | **46** | 63 | 49 |
| Sulfur | ppm | ASTM D5185m | | **23032** | 24244 | 20442 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >75 | **24** | 24 | 23 |
| Sodium | ppm | ASTM D5185m | | **2** | 5 | 3 |
| Potassium | ppm | ASTM D5185m | >20 | **2** | 2 | 0 |

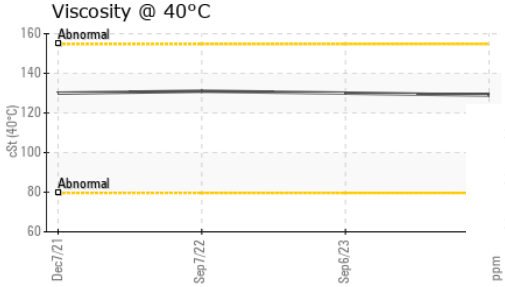
| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | LIGHT |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| 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 | >.2 | **NEG** | 0.2% | 0.2% |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

# OIL ANALYSIS REPORT

Ferrous Alloys




Viscosity @ 40°C

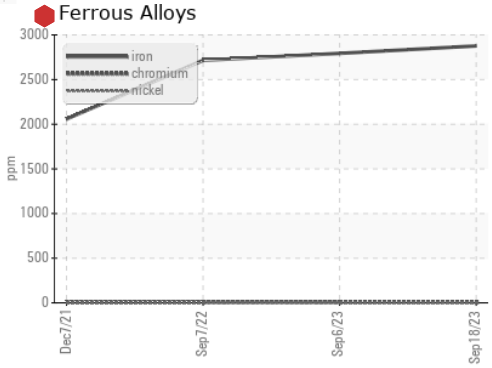



| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | | **129** | 130 | 131 |

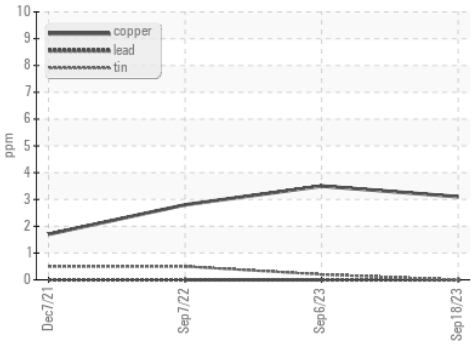
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | | *no image* | *no image* | *no image* |
| Bottom | | | *no image* | *no image* | *no image* |

## GRAPHS

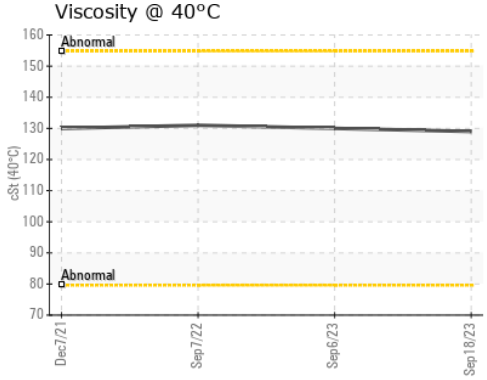
Ferrous Alloys




Non-ferrous Metals




Viscosity @ 40°C




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC0815202
**Lab Number** : 05960827
**Unique Number** : 10662040
**Test Package** : CONST

**Received** : 25 Sep 2023
**Diagnosed** : 27 Sep 2023
**Diagnostician** : Sean Felton

*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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