

OIL ANALYSIS REPORT

Sodium

Area **Midwest PGM** FUCHS 340 fuchs mhl340 (S/N 340/ 2001)

Rear Axle Fluid

GEAR OIL SAE 80W90 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

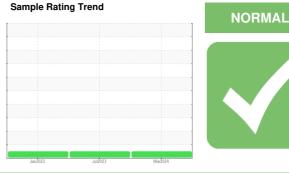
All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.



| | | Jan | 12023 | JUI2023 Marzo | 24 | |
|---------------|---------|-------------|------------|---------------|-------------|-------------|
| SAMPLE INFOR | RMATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | PCA0115479 | LW0007283 | LW0006319 |
| Sample Date | | Client Info | | 27 Mar 2024 | 11 Jul 2023 | 11 Jan 2023 |
| Machine Age | hrs | Client Info | | 14765 | 14352 | 14066 |
| Oil Age | hrs | Client Info | | 14765 | 14352 | 14066 |
| Oil Changed | | Client Info | | Not Changd | Not Changd | Not Changd |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| CONTAMINA | ΓΙΟΝ | method | limit/base | current | history1 | history2 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| WEAR METAI | _S | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >500 | 120 | 102 | 103 |
| Chromium | ppm | ASTM D5185m | >10 | 1 | 1 | <1 |
| Nickel | ppm | ASTM D5185m | >10 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | <1 | 2 | 1 |
| Lead | ppm | ASTM D5185m | >25 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185m | >50 | 24 | 22 | 19 |
| Tin | ppm | ASTM D5185m | >10 | 0 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 400 | 0 | 0 | 3 |
| Barium | ppm | ASTM D5185m | 200 | 0 | 6 | 1 |
| Molybdenum | ppm | ASTM D5185m | 12 | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 4 | 3 | 3 |
| Magnesium | ppm | ASTM D5185m | 12 | 0 | 1 | <1 |
| Calcium | ppm | ASTM D5185m | 150 | 5 | 8 | 9 |
| Phosphorus | ppm | ASTM D5185m | 1650 | 317 | 291 | 306 |
| Zinc | ppm | ASTM D5185m | 125 | 8 | 22 | 16 |
| Sulfur | ppm | ASTM D5185m | 22500 | 30256 | 28586 | 28677 |
| CONTAMINA | NTS | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >75 | 12 | 13 | 12 |
| | | | | | | |

| Potassium | ppm | ASTM D5185m | >20 | 0 | 2 | <1 |
|------------------|--------|-------------|------------|---------|----------|----------|
| VISUAL | | method | limit/base | current | history1 | history2 |
| White Metal | scalar | *Visual | NONE | NONE | MODER | 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 | >0.2 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |

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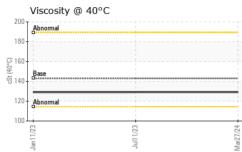
ppm ASTM D5185m >170

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OIL ANALYSIS REPORT



| | Visc @ 40°C | cSt | ASTM D445 | 143 | 129 | 129 | 129 |
|-----------------------------------|---|---------------|--------------|----------------------|--------------------|---------------|----------------------------|
| | SAMPLE IMA | GES | method | limit/base | current | history1 | history |
| | Color | | | | no image | no image | no image |
| Mar27/24 | | | | | | | |
| Mar | Bottom | | | | no image | no image | no image |
| | GRAPHS | | | | | | |
| | Iron (ppm) | | | 120 | Lead (ppm) | | |
| | 1500 - Severe | | | 100 | | | |
| | 톱 1000 - | | | 80 | | | |
| | 500 - Abnormal | | | 40 | Abnormal | | |
| | 0 | | | 20 | | e 1 | |
| | Jan 11/23 | Jul11/23 | | Mar27/24 | Jan 1 1/23 | Jul11/23 | |
| | Aluminum (ppm |) | | | Chromium (p | pm) | |
| | 120 100 Severe | | | 30 | Severe | 1 | |
| | 80 - 틆 60 - | | | 20 톮 15 | | | |
| | 40 - Abnormal | | | 10 | Abrement | | |
| | 20 | | | 5 | | | |
| | Jan 11/23 . | Jul11/23 - | | Mar27/24 - | Jan11/23 | Jul11/23 - | |
| | Copper (ppm) | 7 | | M | ⇒ Silicon (ppm) | ~ | |
| | 200 Severe | | | 250 | Sminn | 1 | |
| | 150 - 0 | | | 150 | | | |
| | 톱 100 | | | E 100 | Abnormal | | |
| | | | | 50 | | | |
| | Jan 11/23 + 0 | Jul11/23 - | | Mar27/24 + | Jan 11/23 | Jul11/23 + | |
| | اب Viscosity @ 40° | | | Ma | Additives | μĻ | |
| | Abnormal | | | 400 | | | |
| | 180 ♀ 160 | | | 300 | sessesses ZIDC | | |
| | ට 160 9 ද 140 Base | | | 튭 200 | | | |
| | 120 - Abnormal | | | 100 | | | |
| | 100 + | Jul11/23 - | | Mar27/24 | Jan 11/23 | Jui11/23 - | |
| | Jan 1 | Jul | | Mar2 | Jan1 | llul | |
| Laboratory | : WearCheck USA - ! | | | CHICAGO MACHINERY I | | | |
| | : PCA0115479 r : <mark>06136684</mark> | Rece Teste | ed : 03 | Apr 2024 Apr 2024 | | | AST LINCO LYNWOOD |
| Unique Numbe 2367 Test Package | r : 10956149 e : MOB 1 | Diag | nosed : 04 | Apr 2024 - Don | Baldridge | | S 60411-77 : Mike Korbe |
| | t, contact Customer Se | rvice at 1-8 | 300-237-1369 |). | m | ike@chicagoma | |