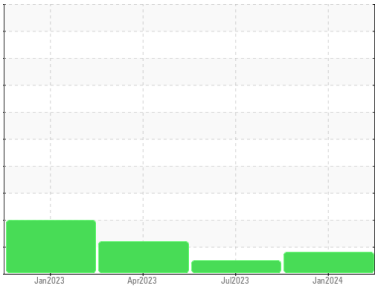
# OIL ANALYSIS REPORT

Sample Rating Trend




ISO

Machine Id
## CHICAGO PNEUMATIC CAI904182 - LONGHORN LOCKERS
Component
**Compressor**
Fluid
**ROTAIR XTRA (--- GAL)**

## DIAGNOSIS

**▲ Recommendation**
No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

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

**▲ Contamination**
There is a moderate amount of silt (particulates < 14 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.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **TO50001874** | QUC0000453 | QUC0000446 |
| Sample Date | | Client Info | | **08 Jan 2024** | 28 Jul 2023 | 11 Apr 2023 |
| Machine Age | hrs | Client Info | | **772** | 378 | 19872 |
| Oil Age | hrs | Client Info | | **0** | 0 | 0 |
| Oil Changed | | Client Info | | **Not Changd** | Not Changd | Not Changd |
| Sample Status | | | | **ATTENTION** | NORMAL | ATTENTION |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >50 | **0** | 0 | 0 |
| Chromium | ppm | ASTM D5185m | >10 | **<1** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | **<1** | <1 | 0 |
| Silver | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | **2** | <1 | 6 |
| Lead | ppm | ASTM D5185m | >25 | **0** | 0 | 0 |
| Copper | ppm | ASTM D5185m | >50 | **<1** | 1 | 0 |
| Tin | ppm | ASTM D5185m | >15 | **<1** | 0 | 0 |
| 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 | | **0** | 0 | 0 |
| Barium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **0** | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | | **0** | 1 | 5 |
| Calcium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | | **37** | 48 | 53 |
| Zinc | ppm | ASTM D5185m | | **48** | 105 | 108 |
| Sulfur | ppm | ASTM D5185m | | **102** | 138 | 0 |

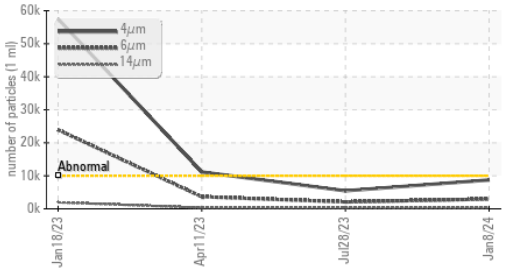
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >25 | **0** | <1 | 0 |
| Sodium | ppm | ASTM D5185m | | **0** | 2 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | **2** | 0 | 0 |
| Water | % | ASTM D6304 | >0.1 | **0.006** | 0.024 | 0.007 |
| ppm Water | ppm | ASTM D6304 | >1000 | **67** | 242.4 | 71.2 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >10000 | **8733** | 5453 | ▲ 11155 |
| Particles >6µm | | ASTM D7647 | >2500 | ▲ **2962** | 2075 | ▲ 3657 |
| Particles >14µm | | ASTM D7647 | >320 | **298** | 274 | 313 |
| Particles >21µm | | ASTM D7647 | >80 | **89** | 92 | 92 |
| Particles >38µm | | ASTM D7647 | >20 | **4** | 3 | 5 |
| Particles >71µm | | ASTM D7647 | >4 | **0** | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/15 | ▲ **20/19/15** | 20/18/15 | ▲ 21/19/15 |

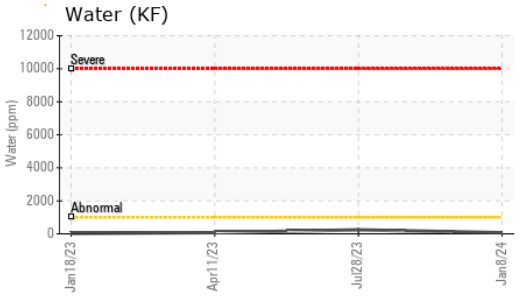
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **0.24** | 0.20 | 0.19 |

# OIL ANALYSIS REPORT

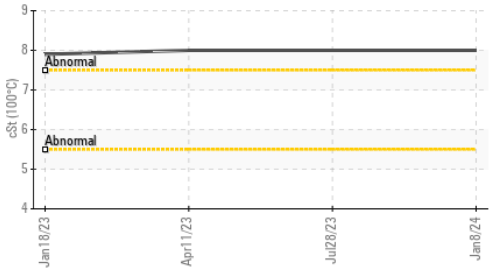
Particle Trend



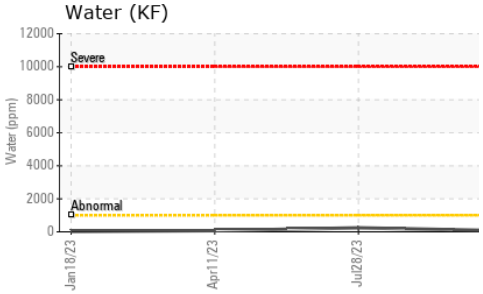

Water (KF)



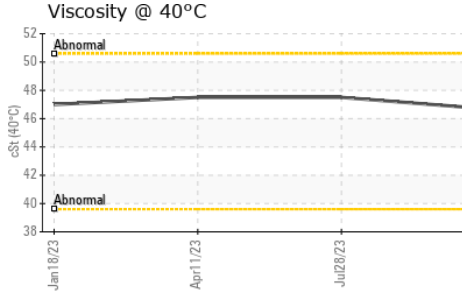

Viscosity @ 100°C




Water (KF)

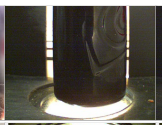
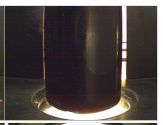
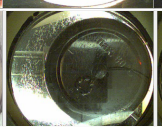
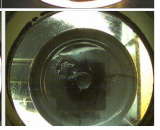



Viscosity @ 40°C



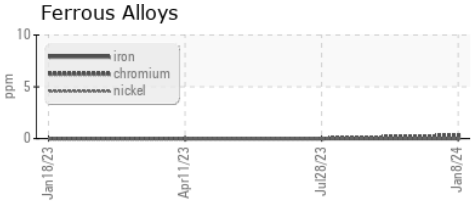

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Silt | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Debris | scalar | *Visual | NONE | **NONE** | NONE | LIGHT |
| 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 | >0.1 | **NEG** | NEG | NEG |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | | **46.7** | 47.5 | 47.5 |
| Visc @ 100°C | cSt | ASTM D445 | | **8** | 8 | 8 |
| Viscosity Index (VI) | Scale | ASTM D2270 | | **143** | 139 | 139 |

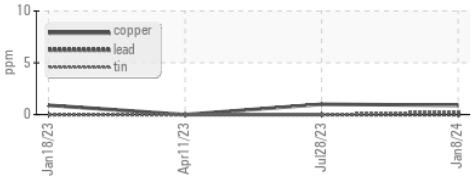
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  |  |  |
| Bottom | | |  |  |  |

## GRAPHS

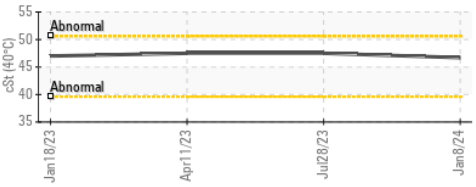
Ferrous Alloys



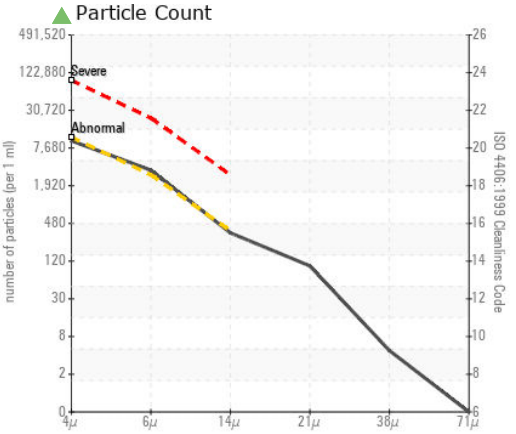

Non-ferrous Metals



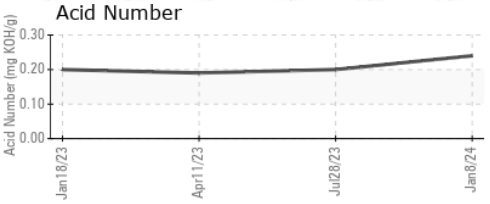

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : TO50001874 **Recieved** : 30 Jan 2024
**Lab Number** : 06074698 **Diagnosed** : 01 Feb 2024
**Unique Number** : 10856789 **Diagnostician** : Jonathan Hester
**Test Package** : IND 2 ( Additional Tests: KF, KV100, PrtCount, VI )

*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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