

OIL ANALYSIS REPORT

Area **LEGACY** [98810770] KR-HA-005546 - TRIMMER 1 SMALL (S/N HAM PACK - 10105268)

Gear Reducer

Fluid SCHAEFFER 294 SUPREME GEAR LUBE ISO 460 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. (Customer Sample Comment: 98810770)

🔺 Wear

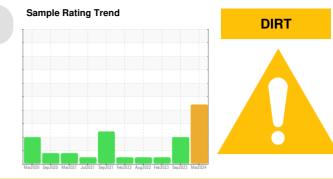
The copper level is abnormal. All other component wear rates are normal.

Contamination

There is a high amount of particulates present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material.

Fluid Condition

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



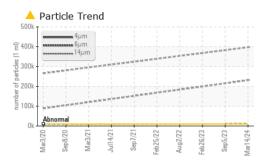
| | ATION | method | limit/base | current | history1 | history2 |
|--|---|---|---|--|---|--|
| Sample Number | | Client Info | | PCA0116657 | PCA0091770 | PCA0093095 |
| Sample Date | | Client Info | | 14 Mar 2024 | 05 Sep 2023 | 26 Feb 2023 |
| Machine Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | ABNORMAL | ATTENTION | NORMAL |
| CONTAMINATIC | ON | method | limit/base | current | history1 | history2 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron p | ppm | ASTM D5185m | >150 | 23 | 1 | 2 |
| | ppm | ASTM D5185m | >10 | <1 | 0 | 0 |
| | ppm | ASTM D5185m | >10 | <1 | 0 | 0 |
| | ppm | ASTM D5185m | | 3 | 0 | 0 |
| | ppm | ASTM D5185m | | 0 | 0 | 0 |
| 1 | ppm | ASTM D5185m | >25 | 3 | <1 | 0 |
| | ppm | ASTM D5185m | >100 | <1 | 2 | 0 |
| | ppm | ASTM D5185m | >50 | <u> </u> | 2 | 34 |
| | ppm | | >10 | 7 | 0 | 2 |
| ···· 1 | ppm | ASTM D5185m | - | <1 | 0 | 0 |
| - · · | ppm | ASTM D5185m | | <1 | 0 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| _ | nnm | ASTM D5185m | 124 | 0 | 7 | 3 |
| 1 | ppm ppm | ASTM D5185m | 124 | 0 | 0 | 0 |
| | ppm | ASTM D5185m | 306 | 8 | 33 | 99 |
| | ppm | ASTM D5185m | 300 | o <1 | <1 | 0 |
| | ppm | ASTM D5185m | 0 | 3 | | |
| iviagnesium i | | ASTIVI DJTOJIT | | | | 0 |
| 0 | | ASTM D5185m | | - | 2 | 0 |
| Calcium | ppm | ASTM D5185m | 23 | 212 | 18 | 24 |
| Calcium phosphorus p | ppm ppm | ASTM D5185m | 23 1100 | 212 555 | 18 526 | 24 543 |
| Calcium p Phosphorus p Zinc p | ppm ppm ppm | ASTM D5185m ASTM D5185m | 23 1100 2 | 212 555 5 | 18 526 0 | 24 543 0 |
| Calcium p Phosphorus p Zinc p Sulfur p | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m | 23 1100 2 25200 | 212 555 5 953 | 18 526 0 3639 | 24 543 0 5164 |
| Calcium p Phosphorus p Zinc p Sulfur p CONTAMINANT | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m method | 23 1100 2 25200 limit/base | 212 555 5 953 current | 18 526 0 3639 history1 | 24 543 0 5164 history2 |
| Calcium p Phosphorus p Zinc p Sulfur p CONTAMINANT Silicon p | ppm ppm ppm ppm S | ASTM D5185m ASTM D5185m ASTM D5185m | 23 1100 2 25200 limit/base | 212 555 5 953 | 18 526 0 3639 | 24 543 0 5164 |
| Calcium p Phosphorus p Zinc p Sulfur p CONTAMINANT Silicon p Sodium p | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m | 23 1100 2 25200 limit/base >50 | 212 555 5 953 current | 18 526 0 3639 history1 | 24 543 0 5164 history2 |
| Calcium p Phosphorus p Zinc p Sulfur p CONTAMINANT Silicon p Sodium p Potassium p | ppm ppm ppm ppm S ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m | 23 1100 2 25200 limit/base >50 | 212 555 5 953 current ▲ 64 | 18 526 0 3639 history1 4 | 24 543 0 5164 history2 7 |
| Calcium p Phosphorus p Zinc p Sulfur p CONTAMINANT Silicon p Sodium p | ppm ppm ppm ppm S ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m | 23 1100 2 25200 limit/base >50 | 212 555 5 953 current ▲ 64 0 | 18 526 0 3639 history1 4 0 | 24 543 0 5164 history2 7 0 |
| Calcium p Phosphorus p Zinc p Sulfur p CONTAMINANT Silicon p Sodium p Potassium p FLUID CLEANLII Particles >4µm | ppm ppm ppm ppm S ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m | 23 1100 2 25200 limit/base >50 >20 | 212 555 5 953 current ▲ 64 0 1 | 18 526 0 3639 history1 4 0 0 | 24 543 0 5164 history2 7 0 <1 |
| Calcium p Phosphorus p Zinc p Sulfur p CONTAMINANT Silicon p Sodium p Potassium p FLUID CLEANLII Particles >4µm Particles >6µm | ppm ppm ppm ppm S ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 23 1100 2 25200 limit/base >50 >20 limit/base >10000 | 212 555 5 953 current 64 0 1 1 current | 18 526 0 3639 history1 4 0 0 0 history1 | 24 543 0 5164 history2 7 0 <1 history2 |
| Calcium p Phosphorus p Zinc p Sulfur p CONTAMINANT Silicon p Sodium p Potassium p FLUID CLEANLII Particles >4µm Particles >6µm p Particles >14µm | ppm ppm ppm ppm S ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D7647 | 23 1100 2 25200 limit/base >50 >20 limit/base >10000 | 212 555 5 953 current ▲ 64 0 1 1 current ▲ 397470 | 18 526 0 3639 history1 4 0 0 0 history1 | 24 543 0 5164 history2 7 0 <1 kistory2 |
| Calcium p Phosphorus p Zinc p Sulfur p CONTAMINANT Silicon p Sodium p Potassium p FLUID CLEANLII Particles >4µm Particles >6µm p Particles >14µm | ppm ppm ppm ppm S ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D7647 ASTM D7647 | 23 1100 2 25200 imit/base >50 >20 imit/base >20 >20 >200 >2500 >2500 >2500 >2500 | 212 555 5 953 current ▲ 64 0 1 current 397470 ▲ 397470 ▲ 231295 | 18 526 0 3639 history1 4 0 0 0 history1 | 24 543 0 5164 history2 7 0 <1 <1 history2 |
| Calcium p Phosphorus p Zinc p Sulfur p CONTAMINANT Silicon p Sodium p Potassium p FLUID CLEANLII Particles >4µm Particles >6µm p Particles >14µm Particles >21µm p Particles >38µm | ppm ppm ppm ppm S ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 | 23 1100 2 55200 limit/base >50 >20 limit/base >10000 >2500 >640 >160 >40 | 212 555 5 953 current ▲ 64 0 1 1 current ▲ 397470 ▲ 397470 ▲ 231295 ▲ 10526 ▲ 1304 26 | 18 526 0 3639 history1 4 0 0 0 history1 | 24 543 0 5164 history2 7 0 <1 <1 history2 |
| Calcium p Phosphorus p Zinc p Sulfur p CONTAMINANT Silicon p Sodium p Potassium p FLUID CLEANLII Particles >4µm Particles >6µm Particles >14µm Particles >21µm | ppm ppm ppm ppm S ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 | 23 1100 2 55200 limit/base >50 >20 limit/base >10000 >2500 >640 >160 >40 | 212 555 5 953 <u>current</u> ▲ 64 0 1 1 <u>current</u> ▲ 397470 ▲ 231295 ▲ 10526 ▲ 1304 | 18 526 0 3639 history1 4 0 0 0 history1 | 24 543 0 5164 history2 7 0 <1 kistory2 |
| Calcium p Phosphorus p Zinc p Sulfur p CONTAMINANT Silicon p Sodium p Potassium p FLUID CLEANLII Particles >4µm p Particles >6µm p Particles >14µm p Particles >21µm p Particles >38µm | ppm ppm ppm ppm S ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 | 23 1100 2 55200 limit/base >50 >20 limit/base >10000 >2500 >640 >160 >40 | 212 555 5 953 current ▲ 64 0 1 1 current ▲ 397470 ▲ 397470 ▲ 231295 ▲ 10526 ▲ 1304 26 | 18 526 0 3639 history1 4 0 0 history1 | 24 543 0 5164 history2 7 0 <1 history2 |
| Calcium p Phosphorus p Zinc p Sulfur p CONTAMINANT Silicon p Sodium p Potassium p FLUID CLEANLII Particles >4µm p Particles >4µm p Particles >14µm p Particles >21µm p Particles >38µm p Particles >71µm | ppm ppm ppm S ppm ppm ppm NESS | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 | 23 1100 2 25200 limit/base >20 limit/base >20 limit/base >200 >2500 >640 >160 >40 >40 >10 | 212 555 5 953 current ▲ 64 0 1 current ▲ 397470 ▲ 397470 ▲ 231295 ▲ 10526 ▲ 1304 26 2 | 18 526 0 3639 history1 4 0 0 history1 | 24 543 0 5164 history2 7 0 <1 history2 |

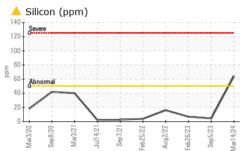
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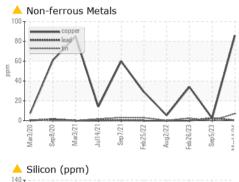
Submitted By: Wilberto Pacheco Garcia Page 1 of 2

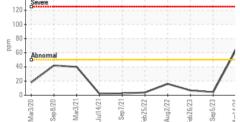


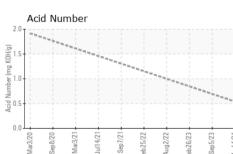
OIL ANALYSIS REPORT





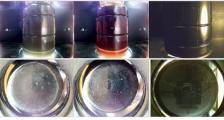




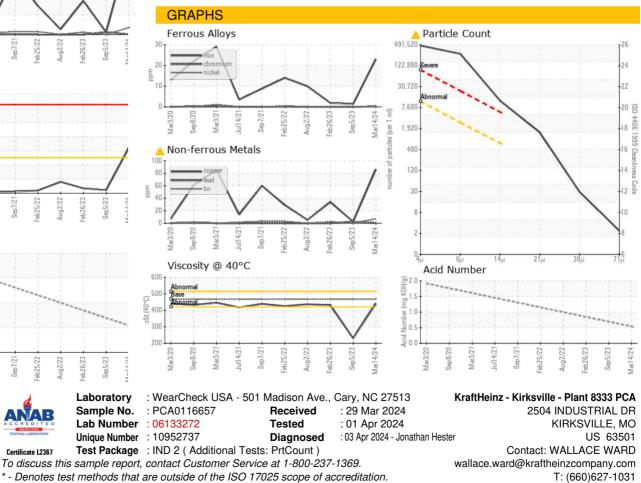


| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | MODER | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | MODER |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | MODER | 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 | >0.1 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |
| FLUID PROPE | RTIES | method | limit/base | current | history1 | history2 |
| Visc @ 40°C | cSt | ASTM D445 | 467.5 | 440 | 230.1 | 432 |
| SAMPLE IMAG | ES | method | limit/base | current | history1 | history2 |
| | | | | - A-A- | | |

Color



Bottom



* - 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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Page 2 of 2

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Certificate L2367