

OIL ANALYSIS REPORT

LFC-1030-CM-01-CM005 [1786984] CM05ST03-1030 - STARTER VAT 3 Component

Gearbox Fluid LE 4220 (3 GAL)

Recommendation

Resample at the next service interval to monitor.

Wear

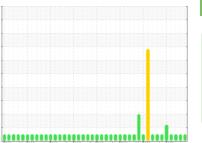
All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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



Sample Rating Trend



NORMAL

| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
|------------------|----------|-------------|------------|-------------|-------------|-------------|
| Sample Number | | Client Info | | WC0823779 | WC0819631 | WC0771819 |
| Sample Date | | Client Info | | 03 Aug 2023 | 12 May 2023 | 16 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 | | | | NORMAL | NORMAL | NORMAL |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >200 | 36 | 18 | 17 |
| Chromium | ppm | ASTM D5185m | >15 | <1 | 0 | <1 |
| Nickel | ppm | ASTM D5185m | >15 | <1 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 2 | 0 | 0 |
| Lead | ppm | ASTM D5185m | >100 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >200 | <1 | 0 | <1 |
| Tin | ppm | ASTM D5185m | >25 | <1 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 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 | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | <1 | 2 | <1 |
| Calcium | ppm | ASTM D5185m | | 2 | 2 | 3 |
| Phosphorus | ppm | ASTM D5185m | | 275 | 259 | 245 |
| Zinc | ppm | ASTM D5185m | | 0 | 0 | 5 |
| Sulfur | ppm | ASTM D5185m | | 2365 | 2821 | 2478 |
| CONTAMINANTS | \$ | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >50 | 14 | 12 | 12 |
| Sodium | ppm | ASTM D5185m | | 1 | <1 | 1 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 1 | <1 |
| FLUID DEGRADA | ATION | method | limit/base | current | history1 | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.79 | 0.73 | 0.73 |
| 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 | LIGHT | LIGHT | 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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Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: BILL FERRIER - LEPALL

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