



# OIL ANALYSIS REPORT

Sample Rating Trend

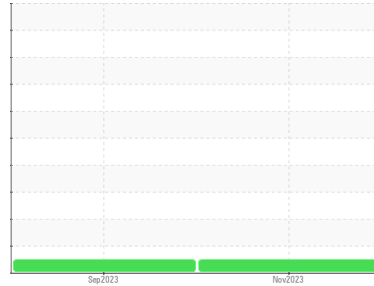
**NORMAL**



Machine Id  
**STARLINE SL-5104-10B-SP 39 (S/N 14691)**

Component  
**Hydraulic System**

Fluid  
**NOT GIVEN (--- GAL)**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

### 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 |             | <b>PH0002367</b>   | PH0001816   | ---      |
| Sample Date   | Client Info |             | <b>14 Nov 2023</b> | 18 Sep 2023 | ---      |
| Machine Age   | hrs         | Client Info | <b>0</b>           | 0           | ---      |
| Oil Age       | hrs         | Client Info | <b>0</b>           | 0           | ---      |
| Oil Changed   | Client Info |             | <b>N/A</b>         | N/A         | ---      |
| Sample Status |             |             | <b>NORMAL</b>      | NORMAL      | ---      |

## CONTAMINATION

|       | method    | limit/base | current    | history1 | history2 |
|-------|-----------|------------|------------|----------|----------|
| Water | WC Method | >0.05      | <b>NEG</b> | NEG      | ---      |

## WEAR METALS

|          | method | limit/base      | current      | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m >20 | <b>0</b>     | 0        | ---      |
| Chromium | ppm    | ASTM D5185m >20 | <b>0</b>     | 5        | ---      |
| Nickel   | ppm    | ASTM D5185m >20 | <b>0</b>     | 0        | ---      |
| Titanium | ppm    | ASTM D5185m     | <b>0</b>     | <1       | ---      |
| Silver   | ppm    | ASTM D5185m     | <b>0</b>     | 0        | ---      |
| Aluminum | ppm    | ASTM D5185m >20 | <b>0</b>     | <1       | ---      |
| Lead     | ppm    | ASTM D5185m >20 | <b>&lt;1</b> | 0        | ---      |
| Copper   | ppm    | ASTM D5185m >20 | <b>0</b>     | <1       | ---      |
| Tin      | ppm    | ASTM D5185m >20 | <b>1</b>     | <1       | ---      |
| Vanadium | ppm    | ASTM D5185m     | <b>0</b>     | <1       | ---      |
| Cadmium  | ppm    | ASTM D5185m     | <b>0</b>     | 0        | ---      |

## ADDITIVES

|            | method | limit/base  | current      | history1 | history2 |
|------------|--------|-------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m | <b>0</b>     | 0        | ---      |
| Barium     | ppm    | ASTM D5185m | <b>0</b>     | 0        | ---      |
| Molybdenum | ppm    | ASTM D5185m | <b>0</b>     | 0        | ---      |
| Manganese  | ppm    | ASTM D5185m | <b>0</b>     | <1       | ---      |
| Magnesium  | ppm    | ASTM D5185m | <b>&lt;1</b> | 0        | ---      |
| Calcium    | ppm    | ASTM D5185m | <b>0</b>     | 2        | ---      |
| Phosphorus | ppm    | ASTM D5185m | <b>33101</b> | 10000    | ---      |
| Zinc       | ppm    | ASTM D5185m | <b>0</b>     | 0        | ---      |
| Sulfur     | ppm    | ASTM D5185m | <b>1735</b>  | 2231     | ---      |

## CONTAMINANTS

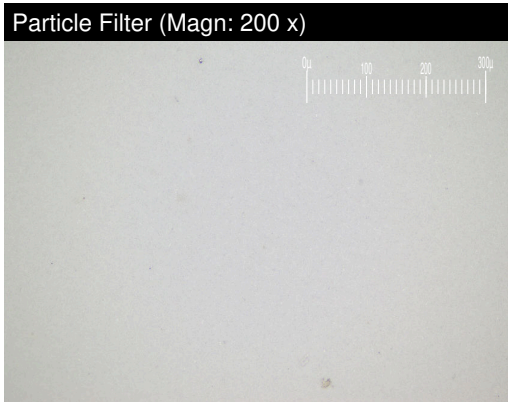
|           | method | limit/base      | current      | history1 | history2 |
|-----------|--------|-----------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >15 | <b>&lt;1</b> | <1       | ---      |
| Sodium    | ppm    | ASTM D5185m     | <b>6</b>     | 3        | ---      |
| Potassium | ppm    | ASTM D5185m >20 | <b>11</b>    | 13       | ---      |

## FLUID CLEANLINESS

|                 | method       | limit/base | current         | history1 | history2 |
|-----------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm  | ASTM D7647   | >10000     | <b>3673</b>     | 748      | ---      |
| Particles >6µm  | ASTM D7647   | >2500      | <b>771</b>      | 124      | ---      |
| Particles >14µm | ASTM D7647   | >320       | <b>57</b>       | 17       | ---      |
| Particles >21µm | ASTM D7647   | >80        | <b>17</b>       | 5        | ---      |
| Particles >38µm | ASTM D7647   | >20        | <b>0</b>        | 0        | ---      |
| Particles >71µm | ASTM D7647   | >4         | <b>0</b>        | 0        | ---      |
| Oil Cleanliness | ISO 4406 (c) | >20/18/15  | <b>19/17/13</b> | 17/14/11 | ---      |

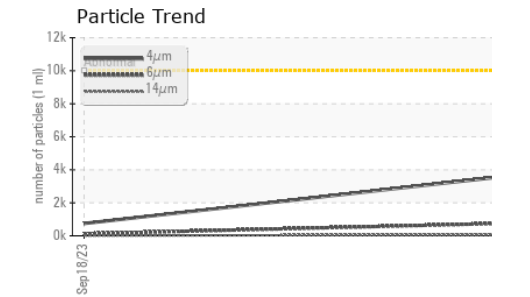
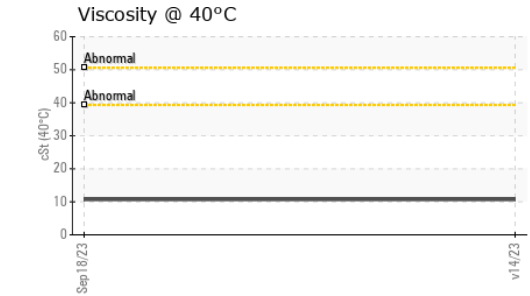
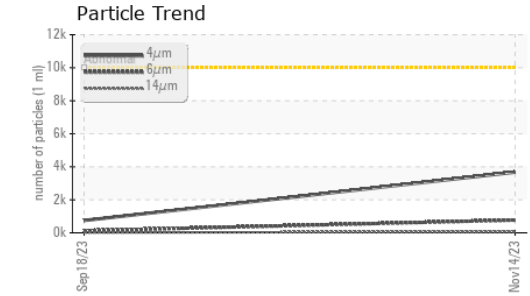
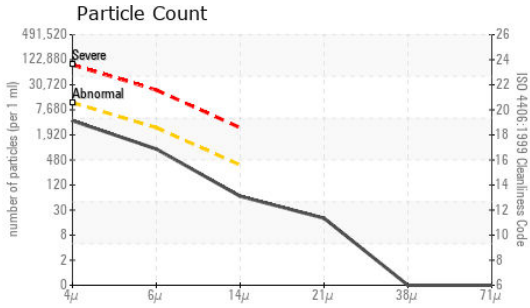
## FLUID DEGRADATION

|                  | method   | limit/base | current      | history1 | history2 |
|------------------|----------|------------|--------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | <b>0.047</b> | 0.043    | ---      |





# OIL ANALYSIS REPORT



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PH0002367 **Received** : 14 Nov 2023  
**Lab Number** : 06007968 **Diagnosed** : 05 Dec 2023  
**Unique Number** : 10741730 **Diagnostician** : Doug Bogart  
**Test Package** : PLANT ( Additional Tests: PrtFilter )

**NORDAM**  
 6911 WHILPOOL DR  
 TULSA, OK  
 US 74117  
 Contact: KURT BODENHAMER  
 kbodenhamer@nordam.com  
 T: (918)401-5219  
 F:

Certificate L2367  
 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)

| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | ---      |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | ---      |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | ---      |
| Silt             | scalar | *Visual    | NONE    | NONE     | ---      |
| Debris           | scalar | *Visual    | NONE    | NONE     | ---      |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | ---      |
| Appearance       | scalar | *Visual    | NORML   | NORML    | ---      |
| Odor             | scalar | *Visual    | NORML   | NORML    | ---      |
| Emulsified Water | scalar | *Visual    | >0.05   | NEG      | ---      |
| Free Water       | scalar | *Visual    |         | NEG      | ---      |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 10.7    | 10.7     | ---      |

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

## GRAPHS

