

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



JLG 1200 SJP 014-0125 (S/N 0300213740)

Component Diocal Engine

Diesel Engine

SCHAEFFER SUPREME 7000 (2 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.

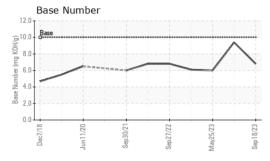
Fluid Condition

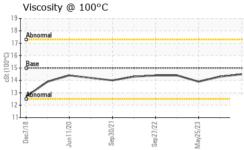
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
|---|--|---|---|--|--|--|
| Sample Number | | Client Info | | WC0815201 | WC0815040 | WC0815189 |
| Sample Date | | Client Info | | 18 Sep 2023 | 01 Sep 2023 | 25 May 2023 |
| Machine Age | hrs | Client Info | | 4590 | 4523 | 4272 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Not Changd | Changed | Changed |
| Sample Status | | | | NORMAL | ABNORMAL | NORMAL |
| CONTAMINATION | V | method | limit/base | current | history1 | history2 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Glycol | | WC Method | | NEG | NEG | NEG |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >150 | 2 | 6 | 7 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | >2 | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 0 | 1 | 8 |
| Lead | ppm | ASTM D5185m | >40 | <1 | 0 | <1 |
| Copper | ppm | ASTM D5185m | >30 | <1 | 1 | <1 |
| Tin | ppm | ASTM D5185m | >15 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| | | | | | | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| ADDITIVES Boron | ppm | method ASTM D5185m | limit/base | current 77 | history1 9 | history2 65 |
| | ppm | | limit/base | | | |
| Boron | | ASTM D5185m | limit/base | 77 | 9 | 65 |
| Boron Barium | ppm | ASTM D5185m ASTM D5185m | | 77 0 | 9 | 65 0 |
| Boron Barium Molybdenum | ppm | ASTM D5185m ASTM D5185m ASTM D5185m | | 77 0 103 | 9 0 280 | 65 0 73 |
| Boron Barium Molybdenum Manganese Magnesium Calcium | ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 50 | 77 0 103 <1 | 9 0 280 <1 | 65 0 73 <1 |
| Boron Barium Molybdenum Manganese Magnesium | ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 50 | 77 0 103 <1 175 1979 1028 | 9 0 280 <1 1032 | 65 0 73 <1 19 |
| Boron Barium Molybdenum Manganese Magnesium Calcium | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 50 1000 1400 | 77 0 103 <1 175 1979 | 9 0 280 <1 1032 1169 | 65 0 73 <1 19 2215 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 50 1000 1400 985 | 77 0 103 <1 175 1979 1028 | 9 0 280 <1 1032 1169 1286 | 65 0 73 <1 19 2215 1054 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m | 50 1000 1400 985 1060 4000 limit/base | 77 0 103 <1 175 1979 1028 1227 5600 current | 9 0 280 <1 1032 1169 1286 1421 4500 history1 | 65 0 73 <1 19 2215 1054 1265 6174 history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m | 50 1000 1400 985 1060 4000 limit/base | 77 0 103 <1 175 1979 1028 1227 5600 current | 9 0 280 <1 1032 1169 1286 1421 4500 history1 ▲ 29 | 65 0 73 <1 19 2215 1054 1265 6174 history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m | 50 1000 1400 985 1060 4000 limit/base >25 | 77 0 103 <1 175 1979 1028 1227 5600 current 16 1 | 9 0 280 <1 1032 1169 1286 1421 4500 history1 29 2 | 65 0 73 <1 19 2215 1054 1265 6174 history2 13 2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m | 50 1000 1400 985 1060 4000 limit/base >25 >20 | 77 0 103 <1 175 1979 1028 1227 5600 current | 9 0 280 <1 1032 1169 1286 1421 4500 history1 29 2 | 65 0 73 <1 19 2215 1054 1265 6174 history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m | 50 1000 1400 985 1060 4000 limit/base >25 | 77 0 103 <1 175 1979 1028 1227 5600 current 16 1 1 current | 9 0 280 <1 1032 1169 1286 1421 4500 history1 ▲ 29 2 | 65 0 73 <1 19 2215 1054 1265 6174 history2 13 2 1 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m Method ASTM D5185m | 50 1000 1400 985 1060 4000 limit/base >25 >20 limit/base >3 | 77 0 103 <1 175 1979 1028 1227 5600 current 16 1 1 current | 9 0 280 <1 1032 1169 1286 1421 4500 history1 ▲ 29 2 2 history1 0.1 | 65 0 73 <1 19 2215 1054 1265 6174 history2 13 2 1 history2 0.1 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 50 1000 1400 985 1060 4000 limit/base >25 >20 limit/base >3 | 77 0 103 <1 175 1979 1028 1227 5600 current 16 1 current 0 7.1 | 9 0 280 <1 1032 1169 1286 1421 4500 history1 ▲ 29 2 history1 0.1 6.3 | 65 0 73 <1 19 2215 1054 1265 6174 history2 13 2 1 history2 0.1 10.0 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m Method ASTM D5185m | 50 1000 1400 985 1060 4000 limit/base >25 >20 limit/base >3 | 77 0 103 <1 175 1979 1028 1227 5600 current 16 1 1 current | 9 0 280 <1 1032 1169 1286 1421 4500 history1 ▲ 29 2 2 history1 0.1 | 65 0 73 <1 19 2215 1054 1265 6174 history2 13 2 1 history2 0.1 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 50 1000 1400 985 1060 4000 limit/base >25 >20 limit/base >3 >20 | 77 0 103 <1 175 1979 1028 1227 5600 current 16 1 current 0 7.1 | 9 0 280 <1 1032 1169 1286 1421 4500 history1 ▲ 29 2 history1 0.1 6.3 | 65 0 73 <1 19 2215 1054 1265 6174 history2 13 2 1 history2 0.1 10.0 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m Method *ASTM D5185m *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145 | 50 1000 1400 985 1060 4000 limit/base >25 >20 limit/base >3 >20 >30 | 77 0 103 <1 175 1979 1028 1227 5600 | 9 0 280 <1 1032 1169 1286 1421 4500 history1 ▲ 29 2 2 history1 0.1 6.3 18.8 | 65 0 73 <1 19 2215 1054 1265 6174 history2 13 2 1 history2 0.1 10.0 19.0 |



OIL ANALYSIS REPORT



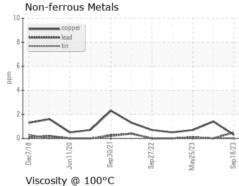


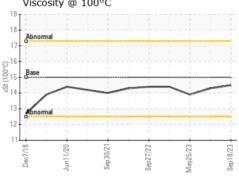
| VISUAL | | method | limit/base | current | history1 | history2 |
|-------------------------|--------|---------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE | 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 |

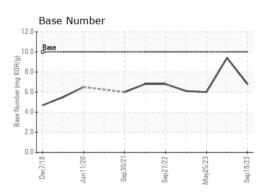
| FLUID PROPERI | IES | method | | | history1 | history2 |
|---------------|-----|-----------|----|------|----------|----------|
| Visc @ 100°C | cSt | ASTM D445 | 15 | 14.5 | 14.3 | 13.9 |

GRAPHS

Ferrous Alloys











Laboratory Sample No. Lab Number

: WC0815201 : 05960339 Unique Number : 10661552

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 25 Sep 2023 Diagnosed : 26 Sep 2023

Diagnostician : Wes Davis

Test Package : CONST (Additional Tests: TBN)

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)

SHIMMICK CONSTRUCTION

5535 TRAILHEAD DRIVE CHATTANOOGA, TN

US 37415

Contact: DANIEL LISELLA daniel.lisella@shimmick.com

T:

F:

Contact/Location: DANIEL LISELLA - AECCHATN