

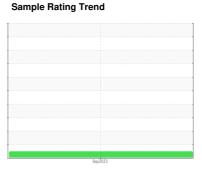
OIL ANALYSIS REPORT



TRACTORS [TRACTORS] 151

Diesel Engine

DIESEL ENGINE OIL SAE 15W40 (--- GAL)





Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

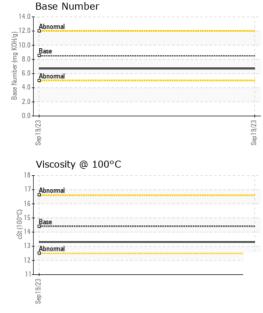
Fluid Condition

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

| Sample Number Client Info SBP0005672 Sample Date Client Info 19 Sep 2023 Machine Age mls Client Info 201123 Client Info 25000 Client Info Changed Client Info Client Info Client Info Changed Client Info Changed Client Info Client Info Changed Client Info Changed Client Info Client Info Client Info Client Info Changed Client Info Changed Client Info Client Info Changed Client Info Client Info Client Info Client Info Changed Client Info Client Info Client Inf | AE 13W40 (C | aAL) | | | Sep2023 | | |
|--|------------------|----------|-------------|------------|-------------|----------|----------|
| Sample Date | SAMPLE INFORI | MATION | method | limit/base | current | history1 | history2 |
| Sample Date Client Info 19 Sep 2023 | Sample Number | | Client Info | | SBP0005672 | | |
| Machine Age mls | | | Client Info | | 19 Sep 2023 | | |
| Oil Age | • | mls | Client Info | | - | | |
| Contamped Client Info Changed Client Info NORMAL Contamped Conta | • | mls | Client Info | | 25000 | | |
| CONTAMINATION | • | | Client Info | | Changed | | |
| Fuel | | | | | | | |
| WEAR METALS | CONTAMINATIO | N | method | limit/base | current | history1 | history2 |
| WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >120 35 | Fuel | | WC Method | >3.0 | <1.0 | | |
| ASTM D5185m SP SP SP SP SP SP SP S | Glycol | | WC Method | | NEG | | |
| ASTM D5185m >20 | WEAR METALS | | method | limit/base | current | history1 | history2 |
| Nickel | ron | ppm | ASTM D5185m | >120 | 35 | | |
| STRI D5185m >2 | Chromium | ppm | ASTM D5185m | >20 | 1 | | |
| Silver | Nickel | ppm | ASTM D5185m | >5 | 7 | | |
| Silver | Titanium | | ASTM D5185m | >2 | <1 | | |
| Aluminum | Silver | | ASTM D5185m | >2 | <1 | | |
| Lead | Aluminum | | | >20 | 6 | | |
| Copper | | | | | | | |
| Vanadium | | | | >330 | 9 | | |
| Vanadium ppm ASTM D5185m <1 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 250 4 Barium ppm ASTM D5185m 10 0 Molybdenum ppm ASTM D5185m 100 89 Manganese ppm ASTM D5185m 100 89 Magnesium ppm ASTM D5185m 450 1344 Magnesium ppm ASTM D5185m 3000 1466 Calcium ppm ASTM D5185m 1350 1763 Phosphorus ppm ASTM D5185m 1350 1763 Sulfur ppm ASTM D5185m 25 <td></td> <td></td> <td></td> <td></td> <td>1</td> <td></td> <td></td> | | | | | 1 | | |
| ADDITIVES | | | | | - <1 | | |
| Boron | | | | | | | |
| Barium | ADDITIVES | | method | limit/base | current | history1 | history2 |
| Molybdenum ppm ASTM D5185m 100 89 Manganese ppm ASTM D5185m 450 1344 Calcium ppm ASTM D5185m 3000 1466 Phosphorus ppm ASTM D5185m 1150 1367 Zinc ppm ASTM D5185m 1350 1763 Sulfur ppm ASTM D5185m 4250 4158 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 13 Sodium ppm ASTM D5185m >158 6 Potassium ppm ASTM D5185m >20 13 INFRA-RED method limit/base current history1 history2 Soot % *ASTM D7844 >4 <td>Boron</td> <td>ppm</td> <td>ASTM D5185m</td> <td>250</td> <td>4</td> <td></td> <td></td> | Boron | ppm | ASTM D5185m | 250 | 4 | | |
| Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 3000 1344 Calcium ppm ASTM D5185m 3000 1466 Phosphorus ppm ASTM D5185m 1150 1367 Zinc ppm ASTM D5185m 1350 1763 Sulfur ppm ASTM D5185m 4250 4158 CONTAMINANTS method limit/base current history1 history2 Solicon ppm ASTM D5185m >25 13 Solicon ppm ASTM D5185m >158 6 Potassium ppm ASTM D5185m >20 13 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 <td>Barium</td> <td>ppm</td> <td>ASTM D5185m</td> <td>10</td> <td>0</td> <td></td> <td></td> | Barium | ppm | ASTM D5185m | 10 | 0 | | |
| Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 3000 1344 Calcium ppm ASTM D5185m 3000 1466 Phosphorus ppm ASTM D5185m 1150 1367 Zinc ppm ASTM D5185m 1350 1763 Sulfur ppm ASTM D5185m 4250 4158 CONTAMINANTS method limit/base current history1 history2 Solicon ppm ASTM D5185m >25 13 Solicon ppm ASTM D5185m >158 6 Potassium ppm ASTM D5185m >20 13 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 <td>Molybdenum</td> <td>ppm</td> <td>ASTM D5185m</td> <td>100</td> <td>89</td> <td></td> <td></td> | Molybdenum | ppm | ASTM D5185m | 100 | 89 | | |
| Magnesium ppm ASTM D5185m 450 1344 Calcium ppm ASTM D5185m 3000 1466 Phosphorus ppm ASTM D5185m 1150 1367 Zinc ppm ASTM D5185m 1350 1763 Sulfur ppm ASTM D5185m 4250 4158 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 13 Sodium ppm ASTM D5185m >158 6 Potassium ppm ASTM D5185m >20 13 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 9.5 Sulfation Abs/.1mm *ASTM D741 | | ppm | ASTM D5185m | | <1 | | |
| Calcium ppm ASTM D5185m 3000 1466 Phosphorus ppm ASTM D5185m 1150 1367 Zinc ppm ASTM D5185m 1350 1763 Sulfur ppm ASTM D5185m 4250 4158 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 13 Sodium ppm ASTM D5185m >158 6 Potassium ppm ASTM D5185m >20 13 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.6 Sulfation Abs/.1mm *ASTM D7415 >30 21.3 FLUID DEGRADATION method | - | | ASTM D5185m | 450 | 1344 | | |
| Phosphorus ppm ASTM D5185m 1150 1367 Zinc ppm ASTM D5185m 1350 1763 Sulfur ppm ASTM D5185m 4250 4158 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 13 Sodium ppm ASTM D5185m >158 6 Potassium ppm ASTM D5185m >20 13 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.6 Sulfation Abs/.1mm *ASTM D7415 >30 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *AS | Calcium | ppm | ASTM D5185m | 3000 | 1466 | | |
| Zinc | | | | | | | |
| Sulfur ppm ASTM D5185m 4250 4158 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 13 Sodium ppm ASTM D5185m >158 6 Potassium ppm ASTM D5185m >20 13 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.6 Sulfation Abs/.1mm *ASTM D7624 >20 9.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 | · | | | | | | |
| Silicon ppm ASTM D5185m >25 13 | - | | | | | | |
| Sodium ppm ASTM D5185m >158 6 Potassium ppm ASTM D5185m >20 13 INFRA-RED method limit/base current history1 history2 Soot % *ASTM D7844 >4 0.6 Nitration Abs/cm *ASTM D7624 >20 9.5 Sulfation Abs/.1mm *ASTM D7415 >30 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 | CONTAMINANTS | 3 | method | limit/base | current | history1 | history2 |
| Potassium ppm ASTM D5185m >20 13 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.6 Nitration Abs/cm *ASTM D7624 >20 9.5 Sulfation Abs/.1mm *ASTM D7415 >30 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 | Silicon | ppm | ASTM D5185m | >25 | 13 | | |
| INFRA-RED | Sodium | ppm | ASTM D5185m | >158 | 6 | | |
| Soot % *ASTM D7844 >4 0.6 Nitration Abs/cm *ASTM D7624 >20 9.5 Sulfation Abs/.1mm *ASTM D7415 >30 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 | Potassium | ppm | ASTM D5185m | >20 | 13 | | |
| Nitration Abs/cm *ASTM D7624 >20 9.5 Sulfation Abs/.1mm *ASTM D7415 >30 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 | INFRA-RED | | method | limit/base | current | history1 | history2 |
| Sulfation Abs/.1mm *ASTM D7415 >30 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 | Soot % | % | *ASTM D7844 | >4 | 0.6 | | |
| FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 | Nitration | Abs/cm | *ASTM D7624 | >20 | 9.5 | | |
| Oxidation | Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 21.3 | | |
| | FLUID DEGRADA | ATION | method | limit/base | current | history1 | history2 |
| | Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 16.8 | | |
| | Base Number (BN) | mg KOH/a | ASTM D2896 | 8.5 | 6.7 | | |



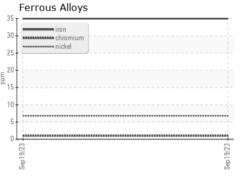
OIL ANALYSIS REPORT



| 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 | >0.2 | NEG | | |
| Free Water | scalar | *Visual | | NEG | | |
| FLUID PROPER | TIES | method | limit/base | current | history1 | history2 |

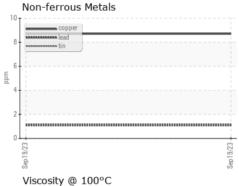
13.3

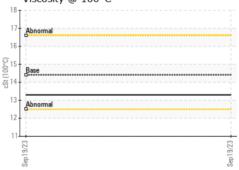
| Visc @ 100°C |
|--------------|
| GRAPHS |

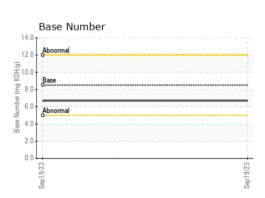


cSt

ASTM D445 14.4









Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10674802 Test Package : FLEET

: SBP0005672 : 05968251

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received Diagnosed

: 03 Oct 2023 : 05 Oct 2023 Diagnostician : Angela Borella

ARMSTRONG RENTALS LLC 2600 RIDGEVIEW DRIVE BEATRICE, NE US 68310 Contact: JOE ARMSTRONG

joea@armstrongrentalsllc.com T: (402)239-9930

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)