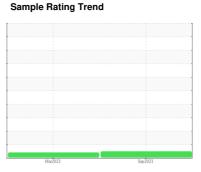


OIL ANALYSIS REPORT

OKLAHOMA/105 Machine Id 08.508 [OKLAHOMA^105]

Diesel Engine

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)





DIAGNOSIS

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

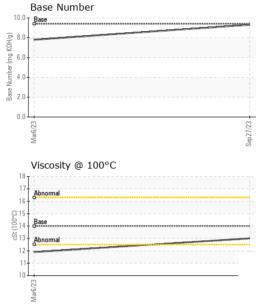
Fluid Condition

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

| SAMPLE INFORMATION method limit/base current history1 | | ATION | method | limit/base | current | history1 | history2 |
|--|---------------------------|----------|-------------|------------|-------------|-------------|----------|
| Sample Date Client Info 27 Sep 2023 06 Mar 2023 | mple Number | | | | | | |
| Sample Date | | | Client Info | | WC0857230 | WC0792525 | |
| Machine Age hrs Client Info 1259 628 | mple Date | | Client Info | | 27 Sep 2023 | 06 Mar 2023 | |
| Coling Changed Changed Changed Changed Changed Coling Changed Changed Coling Col | chine Age | hrs | Client Info | | - | 628 | |
| NORMAL ATTENTION CONTAMINATION method limit/base current history1 | Age | hrs | Client Info | | 631 | 628 | |
| CONTAMINATION method limit/base current history1 Fuel WC Method >5 <1.0 | Changed | | Client Info | | Changed | Changed | |
| Fuel | mple Status | | | | NORMAL | ATTENTION | |
| Glycol WC Method NEG NEG WEAR METALS method limit/base current history1 dron ppm ASTM D5185m >100 20 42 Chromium ppm ASTM D5185m >20 1 2 Nickel ppm ASTM D5185m >4 <1 | ONTAMINATION | | method | limit/base | current | history1 | history2 |
| WEAR METALS method limit/base current history1 Iron ppm ASTM D5185m >100 20 42 Chromium ppm ASTM D5185m >20 1 2 Nickel ppm ASTM D5185m >4 <1 | el | | WC Method | >5 | <1.0 | 0.7 | |
| Chromium | col | | WC Method | | NEG | NEG | |
| Chromium ppm ASTM D5185m >20 1 2 Nickel ppm ASTM D5185m >4 <1 | /EAR METALS | | method | limit/base | current | history1 | history2 |
| Nickel | 1 | ppm | ASTM D5185m | >100 | 20 | 42 | |
| Titanium ppm ASTM D5185m 0 0 Silver ppm ASTM D5185m >3 0 0 Aluminum ppm ASTM D5185m >20 2 2 Lead ppm ASTM D5185m >40 0 0 Copper ppm ASTM D5185m >330 1 5 Tin ppm ASTM D5185m 0 0 Vanadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 0 4 Molybdenum ppm ASTM D5185m 0 40 13 Manganese ppm ASTM D5185m <1 | romium | ppm | ASTM D5185m | >20 | 1 | 2 | |
| Fitanium ppm ASTM D5185m 0 0 Silver ppm ASTM D5185m >3 0 0 Aluminum ppm ASTM D5185m >20 2 2 Lead ppm ASTM D5185m >40 0 0 Copper ppm ASTM D5185m >330 1 5 Fin ppm ASTM D5185m 0 0 Vanadium ppm ASTM D5185m 0 0 Vanadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 Boron ppm ASTM D5185m 0 36 59 Barium ppm ASTM D5185m 0 4 4 Molybdenum ppm ASTM D5185m <1 | kel | | ASTM D5185m | >4 | <1 | <1 | |
| Silver ppm ASTM D5185m >3 0 0 Aluminum ppm ASTM D5185m >20 2 2 Lead ppm ASTM D5185m >40 0 0 Copper ppm ASTM D5185m >330 1 5 Tin ppm ASTM D5185m 0 0 Vanadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 0 36 59 Barium ppm ASTM D5185m 0 4 4 Molybdenum ppm ASTM D5185m <1 2 Magnesium ppm ASTM D5185m <1 2 Magnesium ppm ASTM D5185m 748 661 Calcium ppm ASTM D5185m 748 661 Zinc ppm | nium | | ASTM D5185m | | 0 | 0 | |
| Aluminum ppm ASTM D5185m >20 2 2 Lead ppm ASTM D5185m >40 0 0 Copper ppm ASTM D5185m >330 1 5 Fin ppm ASTM D5185m >15 0 0 Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 Boron ppm ASTM D5185m 0 36 59 Barium ppm ASTM D5185m 0 4 4 Molybdenum ppm ASTM D5185m <1 | | | | >3 | | | |
| Lead ppm ASTM D5185m >40 0 0 Copper ppm ASTM D5185m >330 1 5 Tin ppm ASTM D5185m >15 0 0 Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 Boron ppm ASTM D5185m 0 36 59 Barium ppm ASTM D5185m 0 4 4 Molybdenum ppm ASTM D5185m <1 | minum | • • | | | | | |
| Copper ppm ASTM D5185m >330 1 5 Tin ppm ASTM D5185m >15 0 0 Vanadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 Boron ppm ASTM D5185m 0 36 59 Barium ppm ASTM D5185m 0 4 4 Molybdenum ppm ASTM D5185m 0 40 13 Manganese ppm ASTM D5185m <1 | | | | | | | |
| Tin ppm ASTM D5185m >15 0 0 Vanadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 Boron ppm ASTM D5185m 0 36 59 Barium ppm ASTM D5185m 0 4 Molybdenum ppm ASTM D5185m 0 40 13 Manganese ppm ASTM D5185m <1 2 Magnesium ppm ASTM D5185m 1606 1331 Phosphorus ppm ASTM D5185m 748 661 Zinc ppm ASTM D5185m 938 804 | oper | | ASTM D5185m | >330 | 1 | 5 | |
| Vanadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 Boron ppm ASTM D5185m 0 36 59 Barium ppm ASTM D5185m 0 4 4 Molybdenum ppm ASTM D5185m 0 40 13 Manganese ppm ASTM D5185m <1 | | | | >15 | 0 | | |
| Cadmium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 Boron ppm ASTM D5185m 0 36 59 Barium ppm ASTM D5185m 0 4 Molybdenum ppm ASTM D5185m 0 40 13 Manganese ppm ASTM D5185m <1 | nadium | • • | | | | | |
| Boron ppm ASTM D5185m 0 36 59 Barium ppm ASTM D5185m 0 0 4 Molybdenum ppm ASTM D5185m 0 40 13 Manganese ppm ASTM D5185m <1 2 Magnesium ppm ASTM D5185m 0 502 661 Calcium ppm ASTM D5185m 1606 1331 Phosphorus ppm ASTM D5185m 748 661 Zinc ppm ASTM D5185m 938 804 | dmium | | ASTM D5185m | | | 0 | |
| Barium ppm ASTM D5185m 0 0 4 Molybdenum ppm ASTM D5185m 0 40 13 Manganese ppm ASTM D5185m <1 2 Magnesium ppm ASTM D5185m 0 502 661 Calcium ppm ASTM D5185m 1606 1331 Phosphorus ppm ASTM D5185m 748 661 Zinc ppm ASTM D5185m 938 804 | DDITIVES | | method | limit/base | current | history1 | history2 |
| Molybdenum ppm ASTM D5185m 0 40 13 Manganese ppm ASTM D5185m <1 2 Magnesium ppm ASTM D5185m 0 502 661 Calcium ppm ASTM D5185m 1606 1331 Phosphorus ppm ASTM D5185m 748 661 Zinc ppm ASTM D5185m 938 804 | on | ppm | ASTM D5185m | 0 | 36 | 59 | |
| Manganese ppm ASTM D5185m <1 2 Magnesium ppm ASTM D5185m 0 502 661 Calcium ppm ASTM D5185m 1606 1331 Phosphorus ppm ASTM D5185m 748 661 Zinc ppm ASTM D5185m 938 804 | rium | ppm | ASTM D5185m | 0 | 0 | 4 | |
| Magnesium ppm ASTM D5185m 0 502 661 Calcium ppm ASTM D5185m 1606 1331 Phosphorus ppm ASTM D5185m 748 661 Zinc ppm ASTM D5185m 938 804 | lybdenum | ppm | ASTM D5185m | 0 | 40 | 13 | |
| Calcium ppm ASTM D5185m 1606 1331 Phosphorus ppm ASTM D5185m 748 661 Zinc ppm ASTM D5185m 938 804 | nganese | ppm | ASTM D5185m | | <1 | 2 | |
| Phosphorus ppm ASTM D5185m 748 661 Zinc ppm ASTM D5185m 938 804 | gnesium | ppm | ASTM D5185m | 0 | 502 | 661 | |
| Zinc ppm ASTM D5185m 938 804 | cium | ppm | ASTM D5185m | | 1606 | 1331 | |
| | osphorus | ppm | ASTM D5185m | | 748 | 661 | |
| | С | ppm | ASTM D5185m | | 938 | 804 | |
| Sulfur ppm ASTM D5185m 2653 3235 | fur | ppm | ASTM D5185m | | 2653 | 3235 | |
| CONTAMINANTS method limit/base current history1 | ONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon ppm ASTM D5185m >25 5 11 | con | ppm | ASTM D5185m | >25 | 5 | 11 | |
| Sodium ppm ASTM D5185m 1 4 | dium | | | | 1 | 4 | |
| Potassium ppm ASTM D5185m >20 2 6 | assium | | ASTM D5185m | >20 | 2 | 6 | |
| INFRA-RED method limit/base current history1 | IFRA-RED | | method | limit/base | current | history1 | history2 |
| Soot % % *ASTM D7844 >3 0.3 0.5 | ot % | % | *ASTM D7844 | >3 | 0.3 | 0.5 | |
| Nitration Abs/cm *ASTM D7624 >20 8.6 9.1 | ation | Abs/cm | *ASTM D7624 | >20 | 8.6 | 9.1 | |
| Sulfation Abolton *ACTM D7/15 . 20 00 0 | fation | Abs/.1mm | *ASTM D7415 | >30 | 22.3 | 19.7 | |
| Sunation ADS/.1111111 ASTM D7415 >30 22.3 19.7 | | TION | method | limit/hase | current | history1 | history2 |
| FLUID DEGRADATION method limit/base current history1 | LUID DEGRADA ⁻ | HON | memou | minu base | 33 | | |
| | | | | | | · · | |



OIL ANALYSIS REPORT

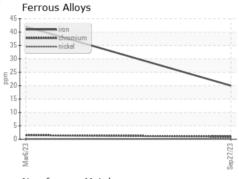


| VISUAL | | method | | | | history2 |
|-------------------------|--------|---------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | |
| Silt | scalar | *Visual | NONE | NONE | NONE | |
| Debris | scalar | *Visual | NONE | NONE | NONE | |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | |
| Appearance | scalar | *Visual | NORML | NORML | NORML | |
| Odor | scalar | *Visual | NORML | NORML | NORML | |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | |
| Free Water | scalar | *Visual | | NEG | NEG | |
| FLUID PROPERT | IFS | method | limit/base | current | history1 | history2 |

13.0

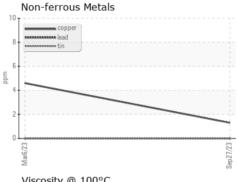
11.9

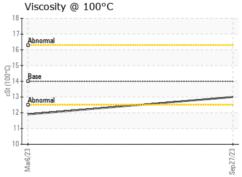
| Visc @ 100°C |
|--------------|
| GRAPHS |

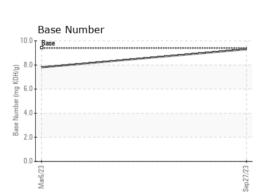


cSt

ASTM D445 14











Laboratory Sample No. Lab Number Unique Number : 10672591

: WC0857230 : 05966040

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

: 02 Oct 2023 Diagnosed

: 02 Oct 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)

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