WEAR CONTAMINATION FLUID CONDITION

ABNORMAL SEVERE ABNORMAL

Machine Id

JOHN DEERE C327277 (S/N 0187658)

Component Diesel Engine

| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|------------------|----------|-------------|------------|-------------|----------|----------|
| We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. | Sample Number | | Client Info | | JR0214683 | | |
| | Sample Date | | Client Info | | 18 Apr 2024 | | |
| | Machine Age | hrs | Client Info | | 1363 | | |
| | Oil Age | hrs | Client Info | | 0 | | |
| | Filter Age | hrs | Client Info | | 0 | | |
| | Oil Changed | | Client Info | | Changed | | |
| | Filter Changed | | Client Info | | Changed | | |
| | Sample Status | | | | SEVERE | | |
| WEAR | Iron | ppm | ASTM D5185m | <u>-51</u> | <u>^</u> 86 | | |
| WEAR | Chromium | | ASTM D5185m | | <1 | | |
| Cylinder, crank, or cam shaft wear is indicated. | Nickel | ppm | ASTM D5185m | | 0 | | |
| | Titanium | ppm | ASTM D5185m | >0 | <1 | | |
| | Silver | | ASTM D5185m | ~3 | 0 | | |
| | Aluminum | ppm | ASTM D5185m | | 4 | | |
| | Lead | ppm | ASTM D5185m | | <1 | | |
| | Copper | ppm | ASTM D5185m | | 7 | | |
| | Tin | ppm | ASTM D5185m | | 1 | | |
| | Vanadium | ppm | ASTM D5185m | - 1 | <1 | | |
| | White Metal | scalar | *Visual | NONE | NONE | | |
| | Yellow Metal | scalar | *Visual | NONE | NONE | | |
| | | | | | | | |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | | 11 | | |
| There is a high amount of fuel present in the oil. | Potassium | ppm | ASTM D5185m | | <1 | | |
| | Fuel | % | ASTM D3524 | | ▲ 9.0 | | |
| | Water | | WC Method | >0.21 | NEG | | |
| | Glycol | | WC Method | - | NEG | | |
| | Soot % | % | *ASTM D7844 | | 0.2 | | |
| | Nitration | Abs/cm | *ASTM D7624 | >20 | 8.4 | | |
| | Sulfation | Abs/.1mm | *ASTM D7415 | | 20.0 | | |
| | 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 | >0.21 | NEG | | |
| FLUID CONDITION | Sodium | ppm | ASTM D5185m | >31 | 3 | | |
| | Boron | ppm | ASTM D5185m | | 90 | | |
| Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants. | Barium | ppm | ASTM D5185m | | 0 | | |
| | Molybdenum | ppm | ASTM D5185m | | 43 | | |
| | Manganese | ppm | ASTM D5185m | | 2 | | |
| | Magnesium | ppm | ASTM D5185m | | 266 | | |
| | Calcium | ppm | ASTM D5185m | | 1863 | | |
| | Phosphorus | ppm | ASTM D5185m | | 880 | | |
| | Zinc | ppm | ASTM D5185m | | 1057 | | |
| | Sulfur | ppm | ASTM D5185m | | 3554 | | |
| | Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 13.5 | | |
| | Base Number (BN) | | ASTM D2896 | | 4.8 | | |
| | Visc @ 100°C | cSt | ASTM D445 | | 10.9 | | |





Certificate L2367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : JR0214683 Lab Number : 06154147

Unique Number : 10989570

Received **Tested** Diagnosed

: 19 Apr 2024 : 23 Apr 2024

: 23 Apr 2024 - Don Baldridge Test Package: CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

Contact: DON VEST dvest@jamesriverequipment.com T: (703)631-8500

JRE - MANASSAS PARK

9107 OWENS DRIVE

MANASSAS PARK, VA

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)

F: (703)631-4715

Contact/Location: DON VEST - JAMMAN

US 20111