

JOHN DEERE 644 P 1DW644PATPLX19041

Component Front Axle

JOHN DEERE HY-GARD HYD/TRANS (27 GAL)

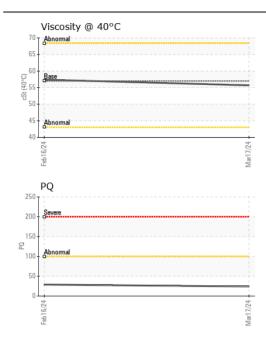
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|--|------------------|--------|-------------|-----------|-------------|-------------|----------|
| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
| Resample at the next service interval to monitor. | Sample Number | | Client Info | | JR0103229 | JR0108945 | |
| | Sample Date | | Client Info | | 17 Mar 2024 | 16 Feb 2024 | |
| | Machine Age | hrs | Client Info | | 441 | 338 | |
| | Oil Age | hrs | Client Info | | 441 | 338 | |
| | Filter Age | hrs | Client Info | | 0 | 338 | |
| | Oil Changed | | Client Info | | Changed | Not Changd | |
| | Filter Changed | | Client Info | | Changed | Not Changd | |
| | Sample Status | | | | NORMAL | NORMAL | |
| WEAR | PQ | | ASTM D8184 | | 24 | 29 | |
| All component wear rates are normal. | Iron | ppm | ASTM D5185m | >750 | 62 | 51 | |
| | Chromium | ppm | ASTM D5185m | >11 | <1 | <1 | |
| | Nickel | ppm | ASTM D5185m | >10 | <1 | 0 | |
| | Titanium | ppm | ASTM D5185m | | <1 | <1 | |
| | Silver | ppm | ASTM D5185m | | 0 | 0 | |
| | Aluminum | ppm | ASTM D5185m | >21 | 2 | 2 | |
| | Lead | ppm | ASTM D5185m | >49 | 23 | 24 | |
| | Copper | ppm | ASTM D5185m | >101 | 102 | 48 | |
| | Tin | ppm | ASTM D5185m | >10 | 1 | <1 | |
| | Vanadium | ppm | ASTM D5185m | | 0 | 0 | |
| | White Metal | scalar | *Visual | NONE | NONE | NONE | |
| | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | |
| CONTAMINATION There is no indication of any contamination in the oil. | Silicon | ppm | ASTM D5185m | >31 | 9 | 4 | |
| | Potassium | ppm | ASTM D5185m | >20 | 5 | 4 | |
| | Water | | WC Method | >0.1 | NEG | NEG | |
| | 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 | >0.1 | NEG | NEG | |
| FLUID CONDITION | Sodium | ppm | ASTM D5185m | >51 | 7 | 2 | |
| The condition of the oil is acceptable for the time in service. | Boron | ppm | ASTM D5185m | 6 | 5 | 3 | |
| | Barium | ppm | ASTM D5185m | 0 | 3 | 15 | |
| | Molybdenum | ppm | ASTM D5185m | 0 | <1 | <1 | |
| | Manganese | ppm | ASTM D5185m | | 4 | 3 | |
| | Magnesium | ppm | ASTM D5185m | 145 | 97 | 100 | |
| | Calcium | ppm | ASTM D5185m | | 3472 | 3341 | |
| | Phosphorus | ppm | ASTM D5185m | 1290 | 1028 | 1040 | |
| | Zinc | ppm | ASTM D5185m | 1640 | 1224 | 1205 | |
| | Sulfur | ppm | ASTM D5185m | | 4438 | 4527 | |
| | Vice @ 10°C | ~C+ | | E7 0 | EE 7 | E7 / | |

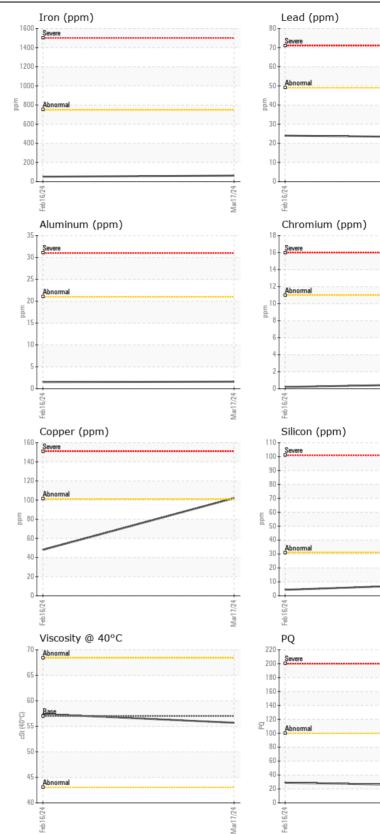
Visc @ 40°C cSt

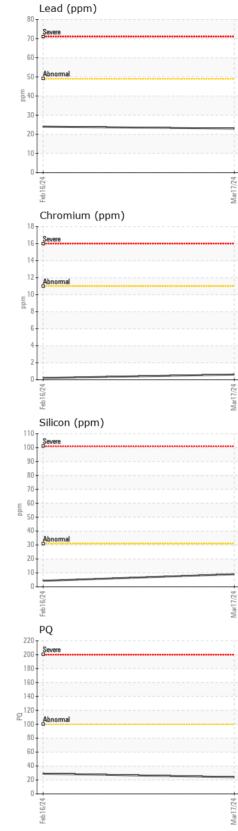
ASTM D445 57.0

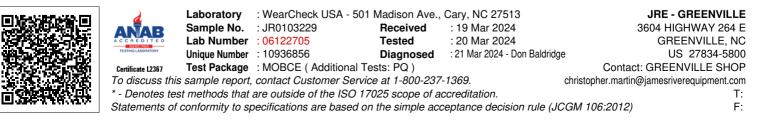
57.4

55.7









Submitted By: Jeffrey Moore

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