



CONSTRUCTION EQUIPMENT

SW0064914 VOLVO L90H 624583 - DIESEL ENGINE



Sample No: VCP426967
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SW0064914



SAMPLE INFORMATION

| | | | | |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | VCP426967 | VCP369872 | VCP373117 | VCP333312 |
| Sample Date | 10 Aug 2023 | 01 Feb 2023 | 05 Aug 2022 | 18 Jan 2022 |
| Machine Hours | 5343 | 4846 | 4380 | 3896 |
| Oil Hours | 0 | 0 | 0 | 0 |
| Oil Changed | Changed | Changed | Changed | Changed |
| Sample Status | NORMAL | NORMAL | NORMAL | NORMAL |

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OIL CONDITION

| | | | | | |
|------------------|----------|-------------|------|------|------|
| Visc @ 100°C | cSt | 13.1 | 13.5 | 13.6 | 13.7 |
| Base Number (BN) | mg KOH/g | 10.3 | 9.3 | 10.8 | 9.2 |
| Oxidation (PA) | % | 80 | 77 | 82 | 67 |



CONTAMINATION

| | | | | | |
|----------------|-----|----------------|------|------|------|
| Soot % | % | 0.5 | 0.3 | 0.6 | 0.6 |
| Nitration (PA) | % | 62 | 68 | 76 | 81 |
| Sulfation (PA) | % | 60 | 60 | 64 | 60 |
| Glycol | % | NEG | NEG | NEG | NEG |
| Fuel | % | <1.0 | <1.0 | <1.0 | <1.0 |
| Silicon | ppm | 4 | 6 | 6 | 6 |
| Sodium | ppm | 0 | 2 | 3 | 2 |
| Potassium | ppm | 1 | 0 | 2 | 2 |

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



WEAR METALS

| | | | | | |
|------------|-----|--------------|----|----|----|
| Iron | ppm | 8 | 10 | 4 | 9 |
| Copper | ppm | <1 | <1 | <1 | <1 |
| Lead | ppm | <1 | 2 | <1 | 0 |
| Tin | ppm | 0 | <1 | 1 | <1 |
| Aluminum | ppm | 4 | 7 | 4 | 5 |
| Chromium | ppm | <1 | 1 | <1 | <1 |
| Molybdenum | ppm | 50 | 49 | 34 | 15 |
| Nickel | ppm | 0 | <1 | <1 | <1 |
| Titanium | ppm | 0 | <1 | <1 | <1 |
| Silver | ppm | <1 | 0 | <1 | <1 |
| Manganese | ppm | <1 | <1 | <1 | <1 |
| Vanadium | ppm | 0 | 0 | 0 | <1 |



ADDITIVES

| | | | | | |
|------------|-----|-------------|------|------|------|
| Calcium | ppm | 1811 | 1755 | 1496 | 1474 |
| Magnesium | ppm | 514 | 535 | 525 | 667 |
| Zinc | ppm | 1021 | 1117 | 904 | 931 |
| Phosphorus | ppm | 847 | 937 | 754 | 795 |
| Barium | ppm | 2 | 0 | 0 | 0 |
| Boron | ppm | 43 | 46 | 41 | 57 |

Depot: VOLVO8247
Unique No: 10603062
Signed: Wes Davis
Report Date: 14 Aug 2023



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VOLVO GRAPHS

