



CONSTRUCTION EQUIPMENT

KING ASPHALT VOLVO L90H 625862 - DIESEL ENGINE



Sample No: VCP263390
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: KING ASPHALT



SAMPLE INFORMATION

| | | | | |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | VCP263390 | VCP424654 | VCP393706 | VCP364958 |
| Sample Date | 29 Mar 2024 | 05 Sep 2023 | 01 Jun 2023 | 04 Jan 2023 |
| Machine Hours | 3304 | 2626 | 2230 | 1603 |
| Oil Hours | 0 | 1000 | 1000 | 1000 |
| Oil Changed | N/A | Changed | Changed | Changed |
| Sample Status | NORMAL | NORMAL | NORMAL | NORMAL |

218 - ASCENDUM MACHINERY INC - N. CHARLESTON
 7235 CROSS COUNTRY RD.
 NORTH CHARLESTON, SC
 US 29418
 Contact: MATT MITCHAM
 matt.mitcham@ascendummachinery.com
 T:
 F: (843)414-1129



OIL CONDITION

| | | | | | |
|------------------|----------|-------------|------|------|------|
| Visc @ 100°C | cSt | 13.3 | 13.4 | 14.1 | 13.8 |
| Base Number (BN) | mg KOH/g | 7.3 | 9.8 | 9.4 | 8.6 |
| Oxidation (PA) | % | 53 | 82 | 96 | 86 |



CONTAMINATION

| | | | | | |
|----------------|-----|----------------|------|------|------|
| Water | % | NEG | NEG | NEG | NEG |
| Soot % | % | 0.1 | 0.7 | 0.8 | 0.9 |
| Nitration (PA) | % | 63 | 71 | 83 | 91 |
| Sulfation (PA) | % | 48 | 63 | 66 | 64 |
| Glycol | % | NEG | NEG | NEG | NEG |
| Fuel | % | <1.0 | <1.0 | <1.0 | <1.0 |
| Silicon | ppm | 5 | 7 | 8 | 11 |
| Sodium | ppm | 1 | 3 | 2 | 3 |
| Potassium | ppm | 0 | 4 | 2 | <1 |

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 | 2 | 20 | 31 | 58 |
| Copper | ppm | <1 | 1 | 2 | 9 |
| Lead | ppm | 0 | 1 | <1 | 2 |
| Tin | ppm | 0 | 2 | 2 | 3 |
| Aluminum | ppm | 2 | 9 | 15 | 26 |
| Chromium | ppm | 0 | 2 | 3 | 6 |
| Molybdenum | ppm | 82 | 43 | 46 | 57 |
| Nickel | ppm | 0 | <1 | 1 | <1 |
| Titanium | ppm | 0 | <1 | 0 | <1 |
| Silver | ppm | 0 | 0 | 0 | 0 |
| Manganese | ppm | 0 | 1 | 1 | 2 |
| Vanadium | ppm | 0 | <1 | <1 | <1 |



ADDITIVES

| | | | | | |
|------------|-----|-------------|------|------|------|
| Calcium | ppm | 2101 | 2025 | 1900 | 1792 |
| Magnesium | ppm | 73 | 557 | 590 | 523 |
| Zinc | ppm | 1133 | 1235 | 1333 | 1293 |
| Phosphorus | ppm | 989 | 1009 | 1057 | 984 |
| Barium | ppm | 0 | 0 | 0 | 0 |
| Boron | ppm | 87 | 23 | 25 | 60 |

Depot: VOLVO3387
Unique No: 10965816
Signed: Wes Davis
Report Date: 09 Apr 2024



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GRAPHS

