



CONSTRUCTION EQUIPMENT

SW102206 YAVAPAI VOLVO L70H 623687 - DIESEL ENGINE



Sample No: VCP417467
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SW102206 YAVAPAI



SAMPLE INFORMATION

| | | | | |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | VCP417467 | VCP379771 | VCP390391 | VCP353616 |
| Sample Date | 28 Jul 2023 | 22 Feb 2023 | 15 Nov 2022 | 16 Sep 2022 |
| Machine Hours | 8550 | 8033 | 7725 | 7501 |
| Oil Hours | 0 | 0 | 224 | 0 |
| Oil Changed | Changed | Changed | Not Changd | Changed |
| Sample Status | NORMAL | NORMAL | NORMAL | ABNORMAL |

ARNOLD MACHINERY COMPANY
 4323 EAST WINSLOW AVENUE
 PHOENIX, AZ
 US 85040
 Contact: RANDY PRZEKURAT
 randyp@arnoldmachinery.com
 T:
 F: (602)414-1904



OIL CONDITION

| | | | | | |
|------------------|----------|-------------|------|------|------|
| Visc @ 100°C | cSt | 13.8 | 13.7 | 14.0 | ▲ 9 |
| Base Number (BN) | mg KOH/g | 9.6 | 10.3 | 11.2 | 11.1 |
| Oxidation (PA) | % | 63 | 61 | 61 | 49 |

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.



CONTAMINATION

| | | | | | |
|----------------|-----|----------------|------|------|-----|
| Soot % | % | 0.4 | 0.4 | 0.2 | 0.3 |
| Nitration (PA) | % | 62 | 68 | 52 | 48 |
| Sulfation (PA) | % | 53 | 53 | 56 | 62 |
| Glycol | % | NEG | NEG | NEG | NEG |
| Fuel | % | <1.0 | <1.0 | <1.0 | 1.1 |
| Silicon | ppm | 4 | 6 | 4 | 8 |
| Sodium | ppm | 0 | 1 | 2 | 4 |
| Potassium | ppm | 2 | 2 | 0 | 0 |



WEAR METALS

| | | | | | |
|------------|-----|--------------|----|----|------|
| Iron | ppm | 14 | 22 | 9 | 30 |
| Copper | ppm | 3 | 10 | 9 | ▲ 74 |
| Lead | ppm | <1 | 0 | <1 | 2 |
| Tin | ppm | <1 | <1 | <1 | <1 |
| Aluminum | ppm | 5 | 9 | 3 | 4 |
| Chromium | ppm | 1 | 2 | <1 | 2 |
| Molybdenum | ppm | 55 | 59 | 56 | 14 |
| Nickel | ppm | <1 | 2 | <1 | 1 |
| Titanium | ppm | 0 | <1 | 0 | <1 |
| Silver | ppm | <1 | <1 | 0 | 0 |
| Manganese | ppm | <1 | <1 | <1 | <1 |
| Vanadium | ppm | 0 | <1 | 0 | 0 |



ADDITIVES

| | | | | | |
|------------|-----|-------------|------|------|------|
| Calcium | ppm | 1395 | 1397 | 1365 | 2993 |
| Magnesium | ppm | 765 | 845 | 855 | 202 |
| Zinc | ppm | 1215 | 1310 | 1277 | 1331 |
| Phosphorus | ppm | 1015 | 1089 | 1049 | 1046 |
| Barium | ppm | 0 | 0 | 0 | 0 |
| Boron | ppm | 23 | 12 | 10 | 59 |

Depot: VOLVO6174
Unique No: 10589079
Signed: Wes Davis
Report Date: 08 Aug 2023



CONSTRUCTION EQUIPMENT



GRAPHS

