



CONSTRUCTION EQUIPMENT

VOLVO A30G 742109 - DIESEL ENGINE



Sample No: VCP417328
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

| | | | | |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | VCP417328 | VCP424425 | VCP397472 | VCP386720 |
| Sample Date | 12 Jun 2023 | 11 Jun 2023 | 16 Jan 2023 | 21 Oct 2022 |
| Machine Hours | 9114 | 7442 | 8854 | 8413 |
| Oil Hours | 500 | 0 | 500 | 500 |
| Oil Changed | Changed | Changed | Changed | Changed |
| Sample Status | ATTENTION | ATTENTION | NORMAL | ATTENTION |

RIPA AND ASSOCIATES

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OIL CONDITION

| | | | | | |
|------------------|----------|---------------|--------|--------|--------|
| Visc @ 100°C | cSt | ▲ 12.0 | ▲ 11.9 | ■ 12.3 | ▲ 12.0 |
| Base Number (BN) | mg KOH/g | ■ 9.7 | ■ 9.3 | ■ 8.7 | ■ 10.4 |
| Oxidation (PA) | % | 73 | 74 | 69 | 64 |

Diagnosis

Oil and filter change at the time of sampling has been noted. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.



CONTAMINATION

| | | | | | |
|----------------|-----|----------------|-------|-------|-------|
| Soot % | % | ■ 0.4 | ■ 0.4 | ■ 0.4 | ■ 0.3 |
| Nitration (PA) | % | 66 | 73 | 66 | 63 |
| Sulfation (PA) | % | 58 | 60 | 58 | 57 |
| Glycol | % | NEG | NEG | NEG | NEG |
| Fuel | % | <1.0 | <1.0 | <1.0 | ■ 1.2 |
| Silicon | ppm | ■ 3 | ■ 4 | ■ 4 | ■ 3 |
| Sodium | ppm | ■ 2 | ■ 1 | ■ 3 | ■ 1 |
| Potassium | ppm | ■ 2 | ■ 0 | ■ 0 | ■ 0 |



WEAR METALS

| | | | | | |
|------------|-----|----------------|------|------|------|
| Iron | ppm | ■ <1 | ■ 6 | ■ 10 | ■ 4 |
| Copper | ppm | ■ 0 | ■ <1 | ■ <1 | ■ <1 |
| Lead | ppm | ■ 0 | ■ 0 | ■ <1 | ■ <1 |
| Tin | ppm | ■ 0 | ■ <1 | ■ <1 | ■ <1 |
| Aluminum | ppm | ■ 6 | ■ <1 | ■ <1 | ■ <1 |
| Chromium | ppm | ■ 0 | ■ <1 | ■ <1 | ■ <1 |
| Molybdenum | ppm | ■ 56 | ■ 47 | ■ 44 | ■ 52 |
| Nickel | ppm | ■ 0 | ■ 2 | ■ 0 | ■ 0 |
| Titanium | ppm | 0 | 0 | ■ 14 | 0 |
| Silver | ppm | ■ 0 | ■ 0 | ■ 0 | ■ 0 |
| Manganese | ppm | ■ 0 | ■ <1 | ■ <1 | ■ <1 |
| Vanadium | ppm | 0 | <1 | <1 | 0 |



ADDITIVES

| | | | | | |
|------------|-----|---------------|--------|--------|--------|
| Calcium | ppm | ■ 1781 | ■ 1308 | ■ 1501 | 1083 |
| Magnesium | ppm | 672 | 671 | ■ 631 | ■ 823 |
| Zinc | ppm | ■ 1310 | ■ 1070 | ■ 1142 | ■ 1133 |
| Phosphorus | ppm | ■ 1104 | ■ 893 | ■ 952 | ■ 957 |
| Barium | ppm | ■ 12 | ■ 0 | ■ 0 | ■ 8 |
| Boron | ppm | ■ 37 | ■ 11 | ■ 31 | ■ 5 |

Depot: RIPTAM
Unique No: 10551649
Signed: Jonathan Hester
Report Date: 14 Jul 2023



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GRAPHS

