

# OIL ANALYSIS REPORT

# VOLVO PENTA

## MATT BIRCHBY 502362 VOLVO PENTA A762218 - STARBOARD DIESEL ENGINE

Sample No: VPA059629

Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

### SAMPLE INFORMATION

|               |             |     |     |     |
|---------------|-------------|-----|-----|-----|
| Sample Number | VPA059629   | --- | --- | --- |
| Sample Date   | 20 Sep 2023 | --- | --- | --- |
| Machine Hours | 471         | --- | --- | --- |
| Oil Hours     | 471         | --- | --- | --- |
| Oil Changed   | Not Changd  | --- | --- | --- |
| Sample Status | NORMAL      | --- | --- | --- |

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### OIL CONDITION

|                  |          |        |     |     |     |
|------------------|----------|--------|-----|-----|-----|
| Visc @ 100°C     | cSt      | █ 14.0 | --- | --- | --- |
| Base Number (BN) | mg KOH/g | █ 9.0  | --- | --- | --- |
| Oxidation (PA)   | %        | 48     | --- | --- | --- |

### 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 acceptable for the time in service.

### CONTAMINATION

|                |     |       |     |     |     |
|----------------|-----|-------|-----|-----|-----|
| Soot %         | %   | █ 0.1 | --- | --- | --- |
| Nitration (PA) | %   | 58    | --- | --- | --- |
| Sulfation (PA) | %   | 48    | --- | --- | --- |
| Glycol         | %   | NEG   | --- | --- | --- |
| Fuel           | %   | < 1.0 | --- | --- | --- |
| Silicon        | ppm | █ 5   | --- | --- | --- |
| Sodium         | ppm | █ 2   | --- | --- | --- |
| Potassium      | ppm | █ 2   | --- | --- | --- |

### WEAR METALS

|            |     |       |     |     |     |
|------------|-----|-------|-----|-----|-----|
| Iron       | ppm | █ 5   | --- | --- | --- |
| Copper     | ppm | █ 1   | --- | --- | --- |
| Lead       | ppm | █ 0   | --- | --- | --- |
| Tin        | ppm | █ 0   | --- | --- | --- |
| Aluminum   | ppm | █ 0   | --- | --- | --- |
| Chromium   | ppm | █ < 1 | --- | --- | --- |
| Molybdenum | ppm | █ 7   | --- | --- | --- |
| Nickel     | ppm | █ 0   | --- | --- | --- |
| Titanium   | ppm | █ 0   | --- | --- | --- |
| Silver     | ppm | █ 0   | --- | --- | --- |
| Manganese  | ppm | █ < 1 | --- | --- | --- |
| Vanadium   | ppm | 0     | --- | --- | --- |

### ADDITIVES

|            |     |        |     |     |     |
|------------|-----|--------|-----|-----|-----|
| Calcium    | ppm | █ 1331 | --- | --- | --- |
| Magnesium  | ppm | █ 838  | --- | --- | --- |
| Zinc       | ppm | █ 911  | --- | --- | --- |
| Phosphorus | ppm | █ 765  | --- | --- | --- |
| Barium     | ppm | █ 0    | --- | --- | --- |
| Boron      | ppm | █ 91   | --- | --- | --- |

Depot: VP794951  
Unique No: 10660145  
Signed: Sean Felton  
Report Date: 25 Sep 2023

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## GRAPHS

