

# OIL ANALYSIS REPORT



## HAROLD WILSON 44182 VOLVO PENTA A795779 - PORT DIESEL ENGINE

Sample No: VPA049926

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

### SAMPLE INFORMATION

|               |             |             |             |     |
|---------------|-------------|-------------|-------------|-----|
| Sample Number | VPA049926   | VPA031068   | VPA031438   | --- |
| Sample Date   | 11 Jan 2024 | 31 Jan 2023 | 07 Feb 2022 | --- |
| Machine Hours | 643         | 533         | 459         | --- |
| Oil Hours     | 0           | 0           | 0           | --- |
| Oil Changed   | Changed     | Changed     | Changed     | --- |
| Sample Status | NORMAL      | NORMAL      | NORMAL      | --- |

### COASTAL CAROLINA YACHT SALES

145 LOCKWOOD BLVD  
CHARLESTON, SC  
US 29403  
Contact: STEVE VASAS  
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F:

### OIL CONDITION

|                  |          |        |        |        |     |
|------------------|----------|--------|--------|--------|-----|
| Visc @ 100°C     | cSt      | █ 14.2 | █ 13.5 | █ 13.5 | --- |
| Base Number (BN) | mg KOH/g | █ 7.7  | █ 10.0 | █ 10.7 | --- |
| Oxidation (PA)   | %        | 66     | 63     | 93     | --- |

### CONTAMINATION

|                |     |       |       |       |     |
|----------------|-----|-------|-------|-------|-----|
| Water          | %   | NEG   | NEG   | NEG   | --- |
| Soot %         | %   | █ 0.3 | █ 0.2 | █ 0.4 | --- |
| Nitration (PA) | %   | 60    | 55    | 72    | --- |
| Sulfation (PA) | %   | 56    | 55    | 67    | --- |
| Glycol         | %   | NEG   | NEG   | NEG   | --- |
| Fuel           | %   | <1.0  | <1.0  | <1.0  | --- |
| Silicon        | ppm | █ 4   | █ 6   | █ 6   | --- |
| Sodium         | ppm | █ 0   | █ 2   | █ 3   | --- |
| Potassium      | ppm | █ 7   | █ 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 | █ 17 | █ 11 | █ 17 | --- |
| Copper     | ppm | █ 9  | █ 5  | █ 5  | --- |
| Lead       | ppm | █ 1  | █ 1  | █ 2  | --- |
| Tin        | ppm | █ 0  | █ <1 | █ 1  | --- |
| Aluminum   | ppm | █ 2  | █ 2  | █ 3  | --- |
| Chromium   | ppm | █ <1 | █ <1 | █ 1  | --- |
| Molybdenum | ppm | █ 10 | █ 60 | █ 43 | --- |
| Nickel     | ppm | █ <1 | █ 2  | █ 1  | --- |
| Titanium   | ppm | █ 0  | █ 0  | █ 0  | --- |
| Silver     | ppm | █ 0  | █ 0  | █ 0  | --- |
| Manganese  | ppm | █ 0  | █ <1 | █ <1 | --- |
| Vanadium   | ppm | 0    | <1   | 0    | --- |

### ADDITIVES

|            |     |        |        |        |     |
|------------|-----|--------|--------|--------|-----|
| Calcium    | ppm | █ 1909 | █ 1192 | █ 1610 | --- |
| Magnesium  | ppm | █ 173  | █ 858  | █ 570  | --- |
| Zinc       | ppm | █ 1149 | █ 1194 | █ 884  | --- |
| Phosphorus | ppm | █ 937  | █ 1005 | █ 803  | --- |
| Barium     | ppm | █ 3    | █ 0    | █ 0    | --- |
| Boron      | ppm | 155    | █ 9    | █ 38   | --- |

Depot: VP568144  
Unique No: 10835339  
Signed: Don Baldrige  
Report Date: 20 Jan 2024

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**VOLVO  
PENTA**

## GRAPHS

