

# OIL ANALYSIS REPORT

# VOLVO PENTA

## CUMMINS 46387757 - DIESEL ENGINE

Sample No: VPA045504

Oil Type: DIESEL ENGINE OIL SAE 15W40

### SAMPLE INFORMATION

|               |             |     |     |     |
|---------------|-------------|-----|-----|-----|
| Sample Number | VPA045504   | --- | --- | --- |
| Sample Date   | 11 Sep 2023 | --- | --- | --- |
| Machine Hours | 0           | --- | --- | --- |
| Oil Hours     | 0           | --- | --- | --- |
| Oil Changed   | Not Changd  | --- | --- | --- |
| Sample Status | SEVERE      | --- | --- | --- |

### Walstrom Marine

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T:  
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### OIL CONDITION

|                  |          |      |     |     |     |
|------------------|----------|------|-----|-----|-----|
| Visc @ 100°C     | cSt      | 11.0 | --- | --- | --- |
| Base Number (BN) | mg KOH/g | 7.7  | --- | --- | --- |
| Oxidation (PA)   | %        | 25   | --- | --- | --- |

### CONTAMINATION

|                |     |     |     |     |     |
|----------------|-----|-----|-----|-----|-----|
| Soot %         | %   | 0   | --- | --- | --- |
| Nitration (PA) | %   | 26  | --- | --- | --- |
| Sulfation (PA) | %   | 36  | --- | --- | --- |
| Glycol         | %   | NEG | --- | --- | --- |
| Fuel           | %   | 0.2 | --- | --- | --- |
| Silicon        | ppm | 4   | --- | --- | --- |
| Sodium         | ppm | 8   | --- | --- | --- |
| Potassium      | ppm | 0   | --- | --- | --- |

### Diagnosis

We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition. Bearing and/or bushing wear is indicated. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. Confirm oil type. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

### WEAR METALS

|            |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|
| Iron       | ppm | 15  | --- | --- | --- |
| Copper     | ppm | 74  | --- | --- | --- |
| Lead       | ppm | 100 | --- | --- | --- |
| Tin        | ppm | <1  | --- | --- | --- |
| Aluminum   | ppm | 9   | --- | --- | --- |
| Chromium   | ppm | <1  | --- | --- | --- |
| Molybdenum | ppm | 112 | --- | --- | --- |
| Nickel     | ppm | 0   | --- | --- | --- |
| Titanium   | ppm | 0   | --- | --- | --- |
| Silver     | ppm | <1  | --- | --- | --- |
| Manganese  | ppm | <1  | --- | --- | --- |
| Vanadium   | ppm | 0   | --- | --- | --- |

### ADDITIVES

|            |     |      |     |     |     |
|------------|-----|------|-----|-----|-----|
| Calcium    | ppm | 2480 | --- | --- | --- |
| Magnesium  | ppm | 93   | --- | --- | --- |
| Zinc       | ppm | 1110 | --- | --- | --- |
| Phosphorus | ppm | 985  | --- | --- | --- |
| Barium     | ppm | 0    | --- | --- | --- |
| Boron      | ppm | 10   | --- | --- | --- |

Depot: VP154879  
Unique No: 10647187  
Signed: Doug Bogart  
Report Date: 18 Sep 2023

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## GRAPHS

