

OIL ANALYSIS REPORT

VOLVO PENTA

TIM BOWE ANDREW VOLVO PENTA 7011426856 - PORT DIESEL ENGINE

Sample No: VPA050688

Oil Type: VOLVO PENTA SAE 15W40

SAMPLE INFORMATION

| | | | | |
|---------------|--------------------|-------------|-------------|-----|
| Sample Number | VPA050688 | VPA045237 | VPA038248 | --- |
| Sample Date | 27 Oct 2023 | 21 Sep 2022 | 02 Aug 2021 | --- |
| Machine Hours | 911 | 725 | 340 | --- |
| Oil Hours | 0 | 200 | 180 | --- |
| Oil Changed | Changed | Changed | N/A | --- |
| Sample Status | NORMAL | ATTENTION | ATTENTION | --- |

GRAND BANKS

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OIL CONDITION

| | | | | | |
|------------------|----------|-------------|------|------|-----|
| Visc @ 100°C | cSt | 12.5 | 12.2 | 12.1 | --- |
| Base Number (BN) | mg KOH/g | 8.7 | 10.2 | --- | --- |
| Oxidation (PA) | % | 66 | 66 | 60 | --- |

CONTAMINATION

| | | | | | |
|----------------|-----|----------------|------|-----|-----|
| Soot % | % | 1.3 | 1 | 0.5 | --- |
| Nitration (PA) | % | 80 | 76 | 58 | --- |
| Sulfation (PA) | % | 64 | 63 | 57 | --- |
| Glycol | % | NEG | NEG | NEG | --- |
| Fuel | % | <1.0 | <1.0 | 1.9 | --- |
| Silicon | ppm | 6 | 8 | 9 | --- |
| Sodium | ppm | 1 | 2 | 2 | --- |
| Potassium | ppm | 0 | <1 | <1 | --- |

WEAR METALS

| | | | | | |
|------------|-----|--------------|----|----|-----|
| Iron | ppm | 25 | 23 | 10 | --- |
| Copper | ppm | 70 | 60 | 46 | --- |
| Lead | ppm | 3 | 1 | 2 | --- |
| Tin | ppm | <1 | 1 | 1 | --- |
| Aluminum | ppm | 1 | 2 | 0 | --- |
| Chromium | ppm | <1 | <1 | <1 | --- |
| Molybdenum | ppm | 64 | 60 | 55 | --- |
| Nickel | ppm | 2 | 1 | <1 | --- |
| Titanium | ppm | 0 | 0 | 0 | --- |
| Silver | ppm | 0 | 2 | <1 | --- |
| Manganese | ppm | <1 | <1 | <1 | --- |
| Vanadium | ppm | 0 | <1 | 0 | --- |

ADDITIVES

| | | | | | |
|------------|-----|-------------|------|------|-----|
| Calcium | ppm | 1108 | 1124 | 1287 | --- |
| Magnesium | ppm | 1039 | 955 | 841 | --- |
| Zinc | ppm | 1406 | 1282 | 1232 | --- |
| Phosphorus | ppm | 1113 | 1055 | 1070 | --- |
| Barium | ppm | 0 | 0 | 0 | --- |
| Boron | ppm | 3 | 3 | 3 | --- |

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.

Depot: VP531377

Unique No: 10727192

Signed: Don Baldrige

Report Date: 07 Nov 2023

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GRAPHS

