



ROBERT KADE VOLVO PENTA 4012058650 - PORT GASOLINE ENGINE

Sample No: VPA055525
Oil Type: NOT GIVEN

| SAMPLE INFORMAT | TION | | | |
|------------------|----------|---------------|------|--|
| | | | | |
| Sample Number | | VPA055525 | | |
| Sample Date | | 25 Sep 2023 | | |
| Machine Hours | | 555 | | |
| Oil Hours | | 0 | | |
| Oil Changed | | N/A | | |
| Sample Status | | ABNORMAL | | |
| OIL CONDITION | | | | |
| Visc @ 100°C | cSt | 12.8 | | |
| Base Number (BN) | mg KOH/g | ■ 5.6 | | |
| Oxidation (PA) | % | 15 | | |
| Oxidation (PA) | 70 | 15 | | |
| CONTAMINATION | | | | |
| Soot % | % | ■0.1 | | |
| Nitration (PA) | % | 10 | | |
| Sulfation (PA) | % | 12 | | |
| Glycol | % | NEG | | |
| Fuel | % | <1.0 | | |
| | | | | |
| Silicon | ppm | ■12 | | |
| Sodium | ppm | ▲ 736 ▲ 37 | | |
| Potassium | ppm | <u>▲</u> 37 | | |
| WEAR METALS | | | | |
| Iron | ppm | <u>^</u> 242 | | |
| Copper | ppm | <u>^</u> 201 | | |
| Lead | ppm | 2 | | |
| Tin | ppm | = <1 | | |
| Aluminum | ppm | 13 | | |
| Chromium | ppm | 2 | | |
| Molybdenum | | 44 | | |
| Nickel | ppm | ——3 ——3 | | |
| Titanium | ppm | 0 | | |
| | ppm | | | |
| Silver | ppm | 0 | | |
| Manganese | ppm | 3 | | |
| Vanadium | ppm | 0 | | |
| Zavitidda | | | | |
| Calcium | ppm | 1768 | | |
| Magnesium | ppm | 125 | | |
| Zinc | ppm | 796 | | |
| Phosphorus | ppm | 649 | | |
| Barium | ppm | 0 | | |
| Boron | ppm | 27 | | |
| | 1-10-11 | | | |

MELBOURNE MARINE DIESEL

MELBOURNE, FL US Contact: SERVICE MANAGER info@melbournemarinediesel.com T: (321)425-2517 F:

Diagnosis

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition. The copper level is abnormal. Cylinder, crank, or cam shaft wear is indicated. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). Sodium and/or potassium levels are high. The BN result indicates that there is suitable alkalinity remaining in the oil.

Depot:VP1222400Unique No:10662789Signed:Jonathan HesterReport Date:28 Sep 2023





