

OIL ANALYSIS REPORT

VOLVO PENTA

CHRISTOPHER KSIDAKIS PATRICK/5020465250 VOLVO PENTA 20132045041 - STARBOARD DIESEL ENGINE

Sample No: VPA055889

Oil Type: VOLVO PENTA VDS 4.5

SAMPLE INFORMATION

| | | | | |
|---------------|-------------|-----|-----|-----|
| Sample Number | VPA055889 | --- | --- | --- |
| Sample Date | 28 Jun 2023 | --- | --- | --- |
| Machine Hours | 113 | --- | --- | --- |
| Oil Hours | 113 | --- | --- | --- |
| Oil Changed | Changed | --- | --- | --- |
| Sample Status | NORMAL | --- | --- | --- |

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OIL CONDITION

| | | | | | |
|------------------|----------|--------|-----|-----|-----|
| Visc @ 100°C | cSt | █ 13.1 | --- | --- | --- |
| Base Number (BN) | mg KOH/g | █ 8.4 | --- | --- | --- |
| Oxidation (PA) | % | 35 | --- | --- | --- |

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 % | % | █ 0.2 | --- | --- | --- |
| Nitration (PA) | % | 38 | --- | --- | --- |
| Sulfation (PA) | % | 41 | --- | --- | --- |
| Glycol | % | NEG | --- | --- | --- |
| Fuel | % | <1.0 | --- | --- | --- |
| Silicon | ppm | █ 25 | --- | --- | --- |
| Sodium | ppm | █ 0 | --- | --- | --- |
| Potassium | ppm | █ 9 | --- | --- | --- |

WEAR METALS

| | | | | | |
|------------|-----|------|-----|-----|-----|
| Iron | ppm | █ 11 | --- | --- | --- |
| Copper | ppm | █ 28 | --- | --- | --- |
| Lead | ppm | █ 1 | --- | --- | --- |
| Tin | ppm | █ 2 | --- | --- | --- |
| Aluminum | ppm | █ 3 | --- | --- | --- |
| Chromium | ppm | █ <1 | --- | --- | --- |
| Molybdenum | ppm | █ 17 | --- | --- | --- |
| Nickel | ppm | █ <1 | --- | --- | --- |
| Titanium | ppm | █ 0 | --- | --- | --- |
| Silver | ppm | █ 0 | --- | --- | --- |
| Manganese | ppm | 2 | --- | --- | --- |
| Vanadium | ppm | 0 | --- | --- | --- |

ADDITIVES

| | | | | | |
|------------|-----|--------|-----|-----|-----|
| Calcium | ppm | █ 1149 | --- | --- | --- |
| Magnesium | ppm | █ 931 | --- | --- | --- |
| Zinc | ppm | █ 1139 | --- | --- | --- |
| Phosphorus | ppm | █ 998 | --- | --- | --- |
| Barium | ppm | █ 0 | --- | --- | --- |
| Boron | ppm | █ 46 | --- | --- | --- |

Depot: VP794951
Unique No: 10545726
Signed: Don Baldrige
Report Date: 06 Jul 2023

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GRAPHS

