

OIL ANALYSIS REPORT

VOLVO PENTA

GLENN KIRK 44327 VOLVO PENTA A1074001 - STARBOARD DIESEL ENGINE

Sample No: VPA056545

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

SAMPLE INFORMATION

| | | | | |
|---------------|-------------|-----|-----|-----|
| Sample Number | VPA056545 | --- | --- | --- |
| Sample Date | 06 Feb 2024 | --- | --- | --- |
| Machine Hours | 291 | --- | --- | --- |
| Oil Hours | 40 | --- | --- | --- |
| Oil Changed | Changed | --- | --- | --- |
| Sample Status | NORMAL | --- | --- | --- |

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OIL CONDITION

| | | | | | |
|------------------|----------|--------|-----|-----|-----|
| Visc @ 100°C | cSt | █ 14.1 | --- | --- | --- |
| Base Number (BN) | mg KOH/g | █ 8.4 | --- | --- | --- |
| Oxidation (PA) | % | 61 | --- | --- | --- |

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

| | | | | | |
|----------------|-----|-------|-----|-----|-----|
| Water | % | NEG | --- | --- | --- |
| Soot % | % | █ 0.1 | --- | --- | --- |
| Nitration (PA) | % | 46 | --- | --- | --- |
| Sulfation (PA) | % | 54 | --- | --- | --- |
| Glycol | % | NEG | --- | --- | --- |
| Fuel | % | < 1.0 | --- | --- | --- |
| Silicon | ppm | █ 3 | --- | --- | --- |
| Sodium | ppm | █ < 1 | --- | --- | --- |
| Potassium | ppm | █ 4 | --- | --- | --- |

WEAR METALS

| | | | | | |
|------------|-----|-------|-----|-----|-----|
| Iron | ppm | █ 8 | --- | --- | --- |
| Copper | ppm | █ 2 | --- | --- | --- |
| Lead | ppm | █ < 1 | --- | --- | --- |
| Tin | ppm | █ 0 | --- | --- | --- |
| Aluminum | ppm | █ 2 | --- | --- | --- |
| Chromium | ppm | █ < 1 | --- | --- | --- |
| Molybdenum | ppm | █ 8 | --- | --- | --- |
| Nickel | ppm | █ 0 | --- | --- | --- |
| Titanium | ppm | █ 0 | --- | --- | --- |
| Silver | ppm | █ 0 | --- | --- | --- |
| Manganese | ppm | █ < 1 | --- | --- | --- |
| Vanadium | ppm | 0 | --- | --- | --- |

ADDITIVES

| | | | | | |
|------------|-----|--------|-----|-----|-----|
| Calcium | ppm | █ 1912 | --- | --- | --- |
| Magnesium | ppm | █ 164 | --- | --- | --- |
| Zinc | ppm | █ 1138 | --- | --- | --- |
| Phosphorus | ppm | █ 980 | --- | --- | --- |
| Barium | ppm | █ 0 | --- | --- | --- |
| Boron | ppm | 174 | --- | --- | --- |

Depot: VP794951
Unique No: 10873228
Signed: Don Baldrige
Report Date: 13 Feb 2024

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GRAPHS

