

OIL ANALYSIS REPORT

VOLVO PENTA

SCOTT WINKELMAN 42146 1012620951 - PORT DIESEL ENGINE

Sample No: VPA044792

Oil Type: DIESEL ENGINE OIL SAE 15W40

SAMPLE INFORMATION

| | | | | |
|---------------|-------------|-----|-----|-----|
| Sample Number | VPA044792 | --- | --- | --- |
| Sample Date | 06 Jul 2023 | --- | --- | --- |
| Machine Hours | 3078 | --- | --- | --- |
| Oil Hours | 0 | --- | --- | --- |
| Oil Changed | Not Changd | --- | --- | --- |
| Sample Status | NORMAL | --- | --- | --- |

INTERSTATE POWER SYSTEMS

2901 E 78TH ST
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US 55425
Contact: BRADY GARBRECHT
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T:
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OIL CONDITION

| | | | | | |
|------------------|----------|--------|-----|-----|-----|
| Visc @ 100°C | cSt | █ 13.8 | --- | --- | --- |
| Base Number (BN) | mg KOH/g | █ 8.2 | --- | --- | --- |
| Oxidation (PA) | % | 56 | --- | --- | --- |

CONTAMINATION

| | | | | | |
|----------------|-----|-------|-----|-----|-----|
| Soot % | % | █ 0.1 | --- | --- | --- |
| Nitration (PA) | % | 65 | --- | --- | --- |
| Sulfation (PA) | % | 50 | --- | --- | --- |
| Glycol | % | NEG | --- | --- | --- |
| Fuel | % | < 1.0 | --- | --- | --- |
| Silicon | ppm | █ 3 | --- | --- | --- |
| Sodium | ppm | █ 1 | --- | --- | --- |
| Potassium | ppm | █ 4 | --- | --- | --- |

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.

WEAR METALS

| | | | | | |
|------------|-----|-------|-----|-----|-----|
| Iron | ppm | █ 3 | --- | --- | --- |
| Copper | ppm | █ 1 | --- | --- | --- |
| Lead | ppm | █ < 1 | --- | --- | --- |
| Tin | ppm | █ < 1 | --- | --- | --- |
| Aluminum | ppm | █ 3 | --- | --- | --- |
| Chromium | ppm | █ 0 | --- | --- | --- |
| Molybdenum | ppm | █ 73 | --- | --- | --- |
| Nickel | ppm | █ < 1 | --- | --- | --- |
| Titanium | ppm | █ < 1 | --- | --- | --- |
| Silver | ppm | █ 0 | --- | --- | --- |
| Manganese | ppm | █ < 1 | --- | --- | --- |
| Vanadium | ppm | < 1 | --- | --- | --- |

ADDITIVES

| | | | | | |
|------------|-----|--------|-----|-----|-----|
| Calcium | ppm | █ 2005 | --- | --- | --- |
| Magnesium | ppm | █ 163 | --- | --- | --- |
| Zinc | ppm | █ 1169 | --- | --- | --- |
| Phosphorus | ppm | █ 941 | --- | --- | --- |
| Barium | ppm | █ 0 | --- | --- | --- |
| Boron | ppm | █ 72 | --- | --- | --- |

Depot: VP1103105
Unique No: 10550558
Signed: Don Baldrige
Report Date: 12 Jul 2023

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GRAPHS

