

OIL ANALYSIS REPORT

VOLVO PENTA

ESPIEITU TAP5333792 ONAN F160968316 - GENSET

Sample No: VPA055685

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

SAMPLE INFORMATION

| | | | | |
|---------------|-------------|-------------|-------------|-----|
| Sample Number | VPA055685 | VPA039657 | VPA023008 | --- |
| Sample Date | 11 Jan 2024 | 07 Oct 2021 | 19 Sep 2018 | --- |
| Machine Hours | 1646 | 721 | 343 | --- |
| Oil Hours | 1646 | 0 | 343 | --- |
| Oil Changed | Changed | Changed | Changed | --- |
| Sample Status | NORMAL | NORMAL | NORMAL | --- |

FDDA TAMPA

TAMPA, FL

US

Contact: KYLE SUTLEY

k.sutley@ssss.com

T: (813)918-8518

F:

OIL CONDITION

| | | | | | |
|------------------|----------|--------|--------|---------|-----|
| Visc @ 100°C | cSt | █ 13.3 | █ 12.4 | █ 12.15 | --- |
| Base Number (BN) | mg KOH/g | █ 8.6 | --- | --- | --- |
| Oxidation (PA) | % | 74 | 63 | 51 | --- |

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 | NEG | NEG | --- |
| Soot % | % | █ 0.1 | █ 0.2 | █ 0.2 | --- |
| Nitration (PA) | % | 76 | 63 | 63 | --- |
| Sulfation (PA) | % | 55 | 54 | 45 | --- |
| Glycol | % | NEG | NEG | NEG | --- |
| Fuel | % | <1.0 | <1.0 | <1.0 | --- |
| Silicon | ppm | █ 6 | █ 5 | █ 15 | --- |
| Sodium | ppm | █ 4 | █ 3 | █ 12 | --- |
| Potassium | ppm | █ 1 | █ <1 | █ <1 | --- |

WEAR METALS

| | | | | | |
|------------|-----|------|------|------|-----|
| Iron | ppm | █ 16 | █ 12 | █ 26 | --- |
| Copper | ppm | █ 3 | █ 2 | █ 12 | --- |
| Lead | ppm | █ 0 | █ 0 | █ 0 | --- |
| Tin | ppm | █ <1 | █ 0 | █ 0 | --- |
| Aluminum | ppm | █ 1 | █ 2 | █ 3 | --- |
| Chromium | ppm | █ <1 | █ <1 | █ 2 | --- |
| Molybdenum | ppm | █ 51 | █ 61 | █ 39 | --- |
| Nickel | ppm | █ 0 | █ <1 | █ <1 | --- |
| Titanium | ppm | <1 | 2 | █ 20 | --- |
| Silver | ppm | █ 0 | 0 | 0 | --- |
| Manganese | ppm | █ <1 | █ <1 | █ 2 | --- |
| Vanadium | ppm | <1 | 0 | 0 | --- |

ADDITIVES

| | | | | | |
|------------|-----|--------|--------|--------|-----|
| Calcium | ppm | █ 1436 | █ 1198 | █ 1669 | --- |
| Magnesium | ppm | 717 | █ 1013 | 866 | --- |
| Zinc | ppm | █ 1352 | █ 1211 | █ 1142 | --- |
| Phosphorus | ppm | █ 1128 | █ 1060 | █ 914 | --- |
| Barium | ppm | █ 0 | █ 0 | █ 3 | --- |
| Boron | ppm | █ 24 | █ 4 | █ 4 | --- |

Depot: VP208641

Unique No: 10836647

Signed: Sean Felton

Report Date: 22 Jan 2024

OIL ANALYSIS REPORT

VOLVO PENTA

GRAPHS

