

OIL ANALYSIS REPORT

VOLVO PENTA

VOLVO PENTA IPS-20D 3950004946 (S/N 395004946) - STARBOARD IPS

Sample No: VPA047198

Oil Type: GEAR OIL SAE 75W90

SAMPLE INFORMATION

| | | | | |
|---------------|-------------|-------------|-------------|-----|
| Sample Number | VPA047198 | VPA045137 | VPA257714 | --- |
| Sample Date | 19 Sep 2023 | 13 Jul 2022 | 09 Jun 2020 | --- |
| Machine Hours | 678 | 448 | 116 | --- |
| Oil Hours | 0 | 0 | 0 | --- |
| Oil Changed | N/A | N/A | Not Changd | --- |
| Sample Status | NORMAL | NORMAL | NORMAL | --- |

SUNCOAST DIESEL MARINE

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SARASOTA, FL
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F:

OIL CONDITION

| | | | | | |
|-------------|-----|-------|-------|--------|-----|
| Visc @ 40°C | cSt | █ 106 | █ 106 | █ 93.9 | --- |
|-------------|-----|-------|-------|--------|-----|

CONTAMINATION

| | | | | | |
|-----------|-----|-----|---------|-----|-----|
| Water | % | --- | █ 0.132 | --- | --- |
| Silicon | ppm | █ 4 | █ 3 | █ 8 | --- |
| Sodium | ppm | █ 9 | █ 18 | █ 5 | --- |
| Potassium | ppm | █ 0 | █ 2 | █ 5 | --- |

WEAR METALS

| | | | | | |
|------------|-----|------|------|------|-----|
| PQ | | █ 12 | █ 22 | █ 24 | --- |
| Iron | ppm | █ 12 | █ 41 | █ 24 | --- |
| Copper | ppm | █ 5 | █ 7 | █ 6 | --- |
| Lead | ppm | █ 0 | <1 | █ 3 | --- |
| Tin | ppm | <1 | <1 | █ 0 | --- |
| Aluminum | ppm | █ 16 | █ 2 | █ 1 | --- |
| Chromium | ppm | █ 0 | █ <1 | █ <1 | --- |
| Molybdenum | ppm | █ <1 | █ <1 | █ 0 | --- |
| Nickel | ppm | █ 0 | █ <1 | █ <1 | --- |
| Titanium | ppm | <1 | █ 0 | █ 0 | --- |
| Silver | ppm | █ 0 | <1 | █ 0 | --- |
| Manganese | ppm | █ <1 | █ 4 | █ 4 | --- |
| Vanadium | ppm | █ 0 | █ 0 | █ 0 | --- |

ADDITIVES

| | | | | | |
|------------|-----|--------|--------|--------|-----|
| Calcium | ppm | █ 28 | █ 16 | █ 38 | --- |
| Magnesium | ppm | █ 2 | █ 71 | █ 963 | --- |
| Zinc | ppm | █ 2 | █ 18 | █ 9 | --- |
| Phosphorus | ppm | █ 1385 | █ 1213 | █ 1602 | --- |
| Barium | ppm | █ 0 | █ 0 | █ <1 | --- |
| Boron | ppm | █ 348 | █ 280 | █ 524 | --- |

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 condition of the oil is acceptable for the time in service.

Depot: VP705283
Unique No: 10670870
Signed: Don Baldrige
Report Date: 01 Oct 2023

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GRAPHS

