



| | |
|-----------------|--------|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | NORMAL |

Machine Id
VOLVO PENTA 1013745620
 Component
Starboard Diesel Engine
 Fluid
MOBIL DELVAC 1300 SUPER15W40 (7 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|-------------|----------|----------|
| Sample Number | | Client Info | | VPA020163 | --- | --- |
| Sample Date | | Client Info | | 30 Jan 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 7018 | --- | --- |
| Oil Age | hrs | Client Info | | 0 | --- | --- |
| Filter Age | hrs | Client Info | | 0 | --- | --- |
| Oil Changed | | Client Info | | Not Chngd | --- | --- |
| Filter Changed | | Client Info | | Not Chngd | --- | --- |
| Sample Status | | | | NORMAL | --- | --- |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|------|-----|-----|
| Iron | ppm | ASTM D5185m | >80 | 0 | --- | --- |
| Chromium | ppm | ASTM D5185m | >6 | <1 | --- | --- |
| Nickel | ppm | ASTM D5185m | >2 | 0 | --- | --- |
| Titanium | ppm | ASTM D5185m | >2 | <1 | --- | --- |
| Silver | ppm | ASTM D5185m | >2 | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185m | >20 | 2 | --- | --- |
| Lead | ppm | ASTM D5185m | >95 | 1 | --- | --- |
| Copper | ppm | ASTM D5185m | >85 | 1 | --- | --- |
| Tin | ppm | ASTM D5185m | >9 | <1 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | --- | --- |
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |

CONTAMINATION

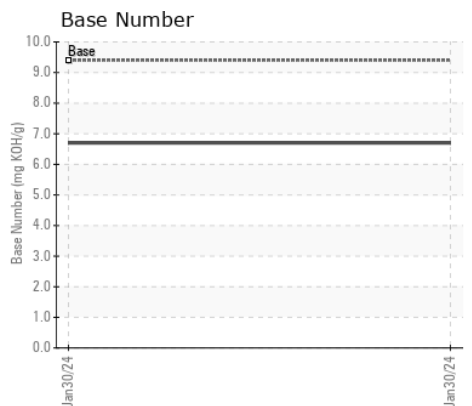
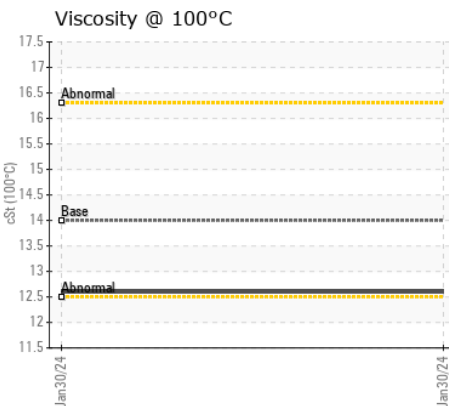
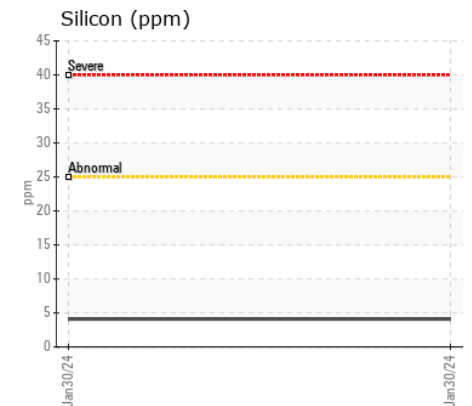
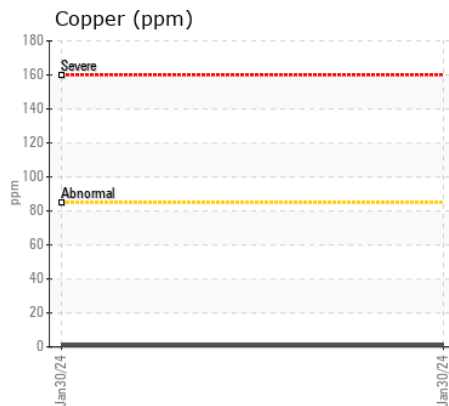
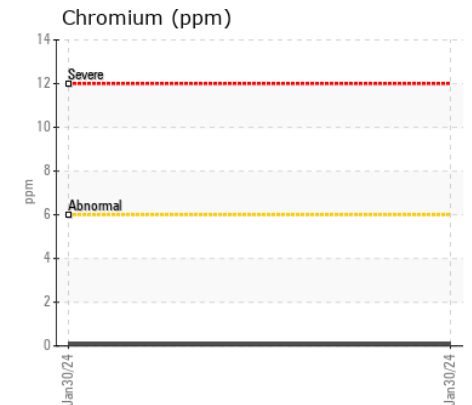
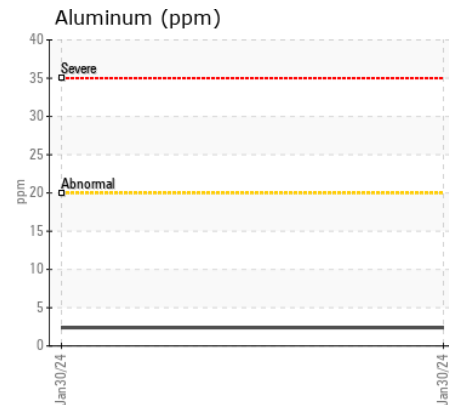
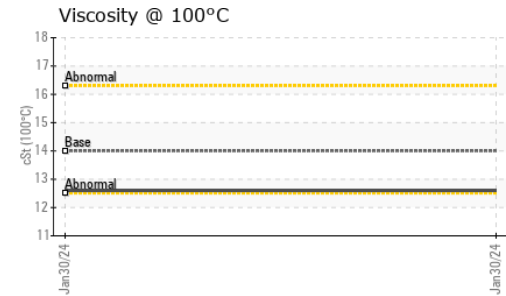
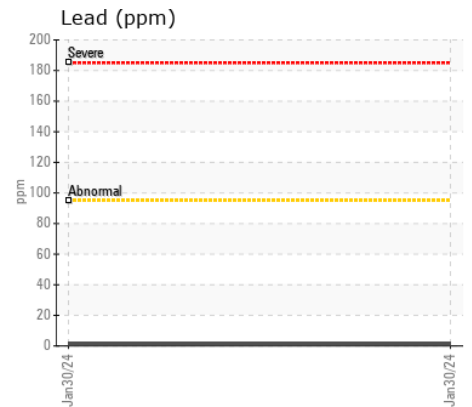
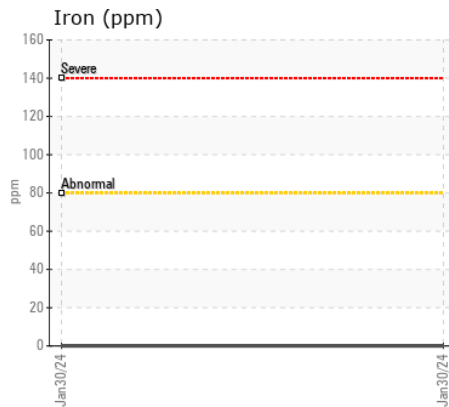
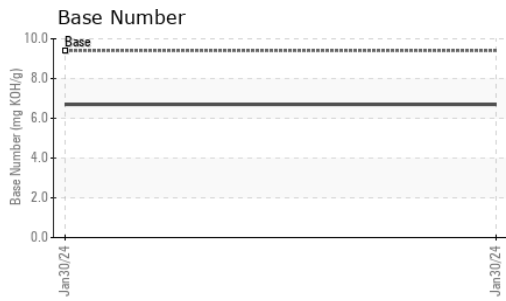
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|-------|-----|-----|
| Silicon | ppm | ASTM D5185m | >25 | 4 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | <1 | --- | --- |
| Fuel | | WC Method | >4.0 | <1.0 | --- | --- |
| Water | | WC Method | >0.1 | NEG | --- | --- |
| Glycol | | WC Method | | NEG | --- | --- |
| Soot % | % | *ASTM D7844 | | 0.1 | --- | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 8.1 | --- | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 18.4 | --- | --- |
| Silt | scalar | *Visual | NONE | NONE | --- | --- |
| Debris | scalar | *Visual | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- | --- |
| Odor | scalar | *Visual | NORML | NORML | --- | --- |
| Emulsified Water | scalar | *Visual | >0.1 | NEG | --- | --- |

FLUID CONDITION

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.

| | | | | | | |
|------------------|----------|-------------|-----|------|-----|-----|
| Sodium | ppm | ASTM D5185m | | 2 | --- | --- |
| Boron | ppm | ASTM D5185m | 0 | 94 | --- | --- |
| Barium | ppm | ASTM D5185m | 0 | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | 0 | 117 | --- | --- |
| Manganese | ppm | ASTM D5185m | | <1 | --- | --- |
| Magnesium | ppm | ASTM D5185m | 0 | 618 | --- | --- |
| Calcium | ppm | ASTM D5185m | | 1181 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | | 706 | --- | --- |
| Zinc | ppm | ASTM D5185m | | 799 | --- | --- |
| Sulfur | ppm | ASTM D5185m | | 2860 | --- | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 15.4 | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.4 | 6.7 | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | 14 | 12.6 | --- | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VPA020163 **Received** : 01 Feb 2024
Lab Number : 06077344 **Diagnosed** : 04 Feb 2024
Unique Number : 10859435 **Diagnostician** : Don Baldrige
Test Package : MOB 1 (Additional Tests: TBN)

CAROLINA MARINE DIESEL
 PO BOX 24159
 HILTON HEAD, SC
 US 29925
 Contact: KEVIN JACKSON
 cmdieselsc@gmail.com
 T: (843)830-9202
 F: (843)681-9976

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)