

OIL ANALYSIS REPORT



RANGER TUG TWO 7716611 VOLVO PENTA A1055830 - CENTER DIESEL ENGINE

Sample No: VPA046788
Oil Type: VOLVO VDS-4.5 Premium Motor Oil 15W40

SAMPLE INFORMATION

Sample Number	VPA046788	VPA046171	---	---
Sample Date	05 Sep 2023	01 Feb 2023	---	---
Machine Hours	973	731	---	---
Oil Hours	0	124	---	---
Oil Changed	N/A	Not Changd	---	---
Sample Status	NORMAL	NORMAL	---	---

Pacific Power Group - VP981534
 7215 S 228th St
 Kent, WA
 US 98032
 Contact: PAT RYAN
 pryan@pacificpowergroup.com
 T: (253)520-5163
 F:

OIL CONDITION

Visc @ 100°C	cSt	13.2	13.8	---	---
Base Number (BN)	mg KOH/g	9.4	8.9	---	---
Oxidation (PA)	%	59	56	---	---

CONTAMINATION

Soot %	%	0.5	0.3	---	---
Nitration (PA)	%	65	61	---	---
Sulfation (PA)	%	53	53	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	0.4	---	---
Silicon	ppm	5	5	---	---
Sodium	ppm	14	7	---	---
Potassium	ppm	2	3	---	---

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	22	11	---	---
Copper	ppm	10	5	---	---
Lead	ppm	2	1	---	---
Tin	ppm	<1	<1	---	---
Aluminum	ppm	4	2	---	---
Chromium	ppm	1	<1	---	---
Molybdenum	ppm	61	46	---	---
Nickel	ppm	2	1	---	---
Titanium	ppm	<1	0	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	<1	<1	---	---
Vanadium	ppm	<1	<1	---	---

ADDITIVES

Calcium	ppm	1279	1249	---	---
Magnesium	ppm	1061	679	---	---
Zinc	ppm	1337	970	---	---
Phosphorus	ppm	1072	831	---	---
Barium	ppm	0	0	---	---
Boron	ppm	27	231	---	---

Depot: VP99031103
Unique No: 10649611
Signed: Sean Felton
Report Date: 20 Sep 2023

OIL ANALYSIS REPORT

VOLVO PENTA

GRAPHS

