

DAVE DAVENPORT [6652] Machine Id VOLVO PENTA D6-2801-B BT 2006017165

Port Diesel Engine

{not provided} (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.	Sample Number		Client Info		VPA055818		
	Sample Date		Client Info		28 May 2024		
	Machine Age	hrs	Client Info		1256		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Not Changd		
	Filter Changed		Client Info		Not Changd		
	Sample Status				SEVERE		
WEAR	Iron	ppm	ASTM D5185m	>80	14		
	Chromium	ppm	ASTM D5185m	>6	<1		
The aluminum level is severe. Piston wear is indicated.	Nickel	ppm	ASTM D5185m	>2	<1		
	Titanium	ppm	ASTM D5185m	>2	<1		
	Silver	ppm	ASTM D5185m	>2	0		
	Aluminum	ppm	ASTM D5185m	>20	A 78		
	Lead	ppm	ASTM D5185m	>95	<1		
	Copper	ppm	ASTM D5185m	>85	4		
	Tin	ppm	ASTM D5185m	>9	<1		
	Vanadium	ppm	ASTM D5185m		<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m		5		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	3		
	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	6.8		
	Sulfation	Abs/.1mm	*ASTM D7415		19.6		
	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	Sodium	ppm	ASTM D5185m		3		
	Boron	ppm	ASTM D5185m		209		
The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m		50		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m		576		
	Calcium	ppm	ASTM D5185m		1300		
	Phosphorus	ppm	ASTM D5185m		652		
	Zinc	ppm	ASTM D5185m		749		
	200	PPIII			1-13		•

Sulfur

Oxidation

Visc @ 100°C cSt

ppm ASTM D5185m

Base Number (BN) mg KOH/g ASTM D2896

Abs/.1mm *ASTM D7414 >25

ASTM D445

2824

14.5

8.1

14.1



Sample No. Received 1325 ROEDER AVE SUITE 103 : VPA055818 : 30 May 2024 Lab Number : 06196093 Tested BELLINGHAM, WA : 31 May 2024 Unique Number : 11058216 Diagnosed : 04 Jun 2024 - Jonathan Hester US 98225 Test Package : MOB 1 (Additional Tests: TBN) Contact: BRANDON ROBERTSON Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. parts@nwdieselpower.com T: * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. F: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)