

OIL ANALYSIS REPORT



MCCLOSKEY 86949 - VARIABLE SPEED - DIESEL ENGINE

Sample No: VPA056298
Oil Type: DIESEL ENGINE OIL SAE 40

SAMPLE INFORMATION

Sample Number	VPA056298	VPA040775	VPA259086	VPA024019
Sample Date	22 Feb 2024	19 Jun 2023	28 May 2020	16 Jul 2019
Machine Hours	290	3930	1549	851
Oil Hours	290	100	369	254
Oil Changed	Changed	Changed	Not Changd	Not Changd
Sample Status	ABNORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	12.0	14.6	12.7	12.5
Base Number (BN)	mg KOH/g	9.1	9.4	---	---
Oxidation (PA)	%	57	63	69	57

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	52	49	51	50
Sulfation (PA)	%	53	56	58	51
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	0.8	<1.0	<1.0	<1.0
Silicon	ppm	42	15	5	7
Sodium	ppm	2	1	2	2
Potassium	ppm	6	1	3	18

WEAR METALS

Iron	ppm	29	27	55	9
Copper	ppm	30	<1	<1	2
Lead	ppm	<1	0	<1	<1
Tin	ppm	3	<1	<1	0
Aluminum	ppm	2	<1	1	3
Chromium	ppm	1	<1	<1	<1
Molybdenum	ppm	68	58	42	55
Nickel	ppm	1	0	0	0
Titanium	ppm	<1	<1	0	<1
Silver	ppm	<1	0	<1	0
Manganese	ppm	4	<1	<1	<1
Vanadium	ppm	<1	0	0	0

ADDITIVES

Calcium	ppm	1170	1429	1331	1247
Magnesium	ppm	862	724	526	925
Zinc	ppm	1175	1207	948	1168
Phosphorus	ppm	955	1009	868	1040
Barium	ppm	2	0	0	0
Boron	ppm	29	112	45	18

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of seal material. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Depot: VP1121775
Unique No: 10900895
Signed: Jonathan Hester
Report Date: 04 Mar 2024

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VOLVO PENTA

GRAPHS

