

[TREMRON] Machine Id VOLVO L90F 028721 Component Diesel Engine

VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

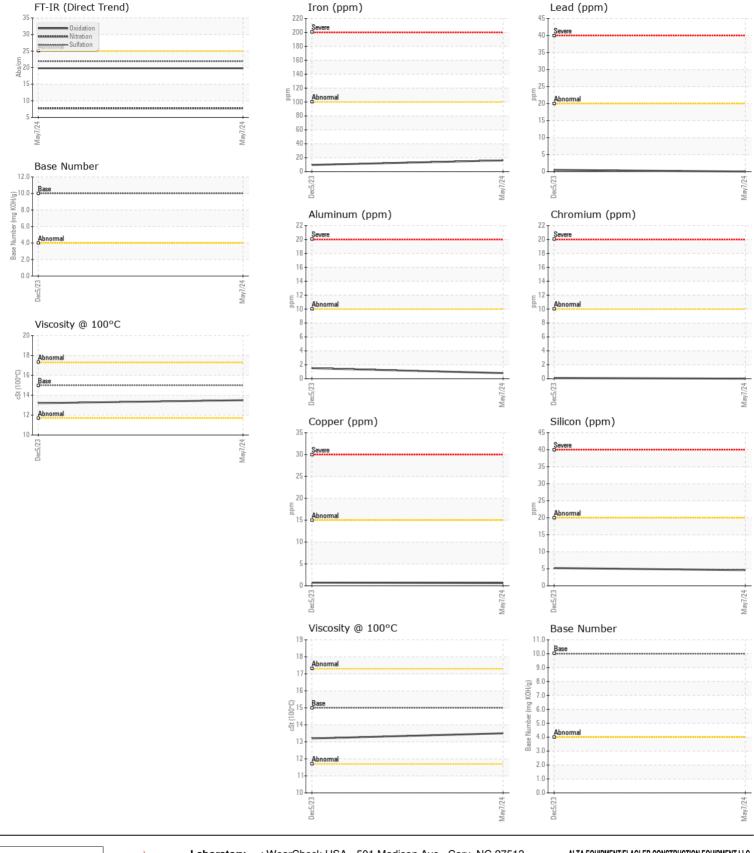
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		VCP454844	VCP428839	
	Sample Date		Client Info		07 May 2024	05 Dec 2023	
	Machine Age	hrs	Client Info		21991	21226	
	Oil Age	hrs	Client Info		0	0	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185m	<100	16	10	
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		0	<1	
	Nickel	ppm	ASTM D5185m		0	<1	
	Titanium	ppm	ASTM D5185m	210	0	<1	
	Silver		ASTM D5185m	>2	0	0	
	Aluminum	ppm ppm	ASTM D5185m		<1	2	
	Lead		ASTM D5185m		0	<1	
	Copper	ppm ppm	ASTM D5185m		<1	<1	
	Tin	ppm	ASTM D5185m		0	<1	
	Vanadium	ppm	ASTM D5185m	210	<1	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	5	5	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	0	2	
	Fuel		WC Method		<1.0	<1.0	
	Water		WC Method	>0.1	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844	>3	0.4		
	Nitration	Abs/cm	*ASTM D7624	>20	7.7		
	Sulfation	Abs/.1mm	*ASTM D7415		21.9		
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m		3	0	
	Boron	ppm	ASTM D5185m	2.5	24	38	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m	0.0	0	<1	
	Molybdenum	ppm	ASTM D5185m	0.7	44	39	
	Manganese	ppm	ASTM D5185m	0.0	<1	<1	
	Magnesium	ppm	ASTM D5185m	256	570	467	
	Calcium	ppm	ASTM D5185m		1769	1635	
	Phosphorus	ppm	ASTM D5185m	935	987	934	
	Zinc	ppm	ASTM D5185m	1223	1145	1101	
	Sulfur	ppm	ASTM D5185m	4079	3550	3106	
	Oxidation	Abs/.1mm	*ASTM D7414	>25	19.8		
	Base Number (BN)	mg KOH/g	ASTM D2896	10	9.6		
	14 0 100 0	<u></u>	A OTH D A CT	. = 0		10.0	

Visc @ 100°C cSt

ASTM D445 15.0

13.2

13.5



ALTA EQUIPMENT/FLAGLER CONSTRUCTION EQUIPMENT LLC Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : VCP454844 Received 8418 PALM RIVER ROAD : 14 May 2024 Lab Number : 06178301 Tested TAMPA, FL : 14 May 2024 Unique Number : 11029627 Diagnosed : 14 May 2024 - Wes Davis US 33619 Test Package : MOB 1 (Additional Tests: TBN) Contact: KENNY HANEY Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. khaney@flaglerce.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (813)630-0077 F: (813)630-2233 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: KENNY HANEY - VOLVO0093