

Machine Id **NO UNIT VCP449294** Component **Hydraulic System** Fluid **VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)**

RECOMMENDATION

We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3, however, a fluid match indicates that this fluid is ISO 46 AW Hydraulic Oil. Please confirm the oil type and grade on your next sample. Please specify the component make and model with your next sample.

WEAR

All component wear rates are normal.

CONTAMINATION

There is a light amount of silt (particulates < 14 microns in size) present in the oil.

FLUID CONDITION

Viscosity of sample indicates oil is within ISO 46 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP449294		
Sample Date		Client Info		22 Jan 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		1000		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		Not Changd		
Filter Changed		Client Info		Not Changd		
Sample Status				ABNORMAL		
Iron	ppm	ASTM D5185(m)	>20	7		
Chromium	ppm	ASTM D5185(m)	>10	1		
Nickel	ppm	ASTM D5185(m)	>10	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>10	<1		
Lead	ppm	ASTM D5185(m)	>10	<1		
Copper	ppm	ASTM D5185(m)	>75	2		
Tin	ppm	ASTM D5185(m)	>10	0		
Vanadium	ppm	ASTM D5185(m)		0		
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Silicon	ppm	ASTM D5185(m)	>20	2		
Potassium	ppm	ASTM D5185(m)	>20	<1		
Water		WC Method	>0.1	NEG		
Particles >4µm		ASTM D7647	>5000	4 9818		
Particles >6µm		ASTM D7647	>1300	645		
Particles >14µm		ASTM D7647	>160	21		
Particles >21µm		ASTM D7647	>40	7		
Particles >38µm		ASTM D7647	>10	1		
Particles >71µm		ASTM D7647	>3	0		
Oil Cleanliness		ISO 4406 (c)	>19/17/14	20/17/12		
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		
Sodium	nom	ASTM D5185(m)		<1		
Boron	ppm ppm	ASTM D5185(m)	2.5	<1		
Barium	ppm	ASTM D5185(m) ASTM D5185(m)	0.0	<1 <1		
Molybdenum	ppm	ASTM D5185(m)	0.7	0		
Manganese	ppm	ASTM D5185(m) ASTM D5185(m)	0.0	0		
Magnesium	ppm	ASTM D5185(m)	256	۰ <1		
Calcium		ASTM D5185(m)	2057	56		
Phosphorus	ppm	ASTM D5185(m)	935	340		
Zinc	ppm	ASTM D5185(m)	1223	428		
Sulfur	ppm ppm	ASTM D5185(m) ASTM D5185(m)	4079	2074		
Visc @ 40°C	cSt	ASTM D3183(m) ASTM D7279(m)	113	41.3		
VISC @ 40 C	001	NO I WI DI ZI 3(III)	110	41.3		



