



CONSTRUCTION EQUIPMENT

SW-32644-2 TEARAPART VOLVO EC160E 310416 - DIESEL ENGINE



Sample No: VCP446572
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SW-32644-2 TEARAPART



SAMPLE INFORMATION

Sample Number	VCP446572	VCP397851	VCP347199	VCP254011
Sample Date	11 Apr 2024	30 May 2023	07 Feb 2022	18 Sep 2020
Machine Hours	2929	2483	1995	1596
Oil Hours	450	500	500	1596
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

ARNOLD MACHINERY COMPANY
 2975 WEST 2100 SOUTH
 SALT LAKE CITY, UT
 US 84119
 Contact: TONY PAYAN
 tpayan@arnoldmachinery.com
 T: (801)972-4000
 F: (801)975-9434



OIL CONDITION

Visc @ 100°C	cSt	13.1	13.1	13.1	13.0
Base Number (BN)	mg KOH/g	9.9	10.5	11.0	---
Oxidation (PA)	%	59	82	89	83

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 suitable for further service.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.5	0.4	0.4	0.3
Nitration (PA)	%	55	61	67	65
Sulfation (PA)	%	54	62	66	62
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	3	6	8	7
Sodium	ppm	1	2	3	4
Potassium	ppm	0	0	<1	<1



WEAR METALS

Iron	ppm	16	33	25	24
Copper	ppm	2	<1	2	3
Lead	ppm	0	0	<1	<1
Tin	ppm	0	0	1	1
Aluminum	ppm	6	10	17	8
Chromium	ppm	<1	1	2	2
Molybdenum	ppm	57	41	40	45
Nickel	ppm	<1	<1	1	1
Titanium	ppm	0	0	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	1109	1774	1851	1556
Magnesium	ppm	872	564	576	585
Zinc	ppm	1134	1171	1140	953
Phosphorus	ppm	966	905	980	827
Barium	ppm	0	0	0	0
Boron	ppm	6	40	42	30

Depot: VOLVO8770
Unique No: 10981659
Signed: Wes Davis
Report Date: 19 Apr 2024



CONSTRUCTION EQUIPMENT



GRAPHS

